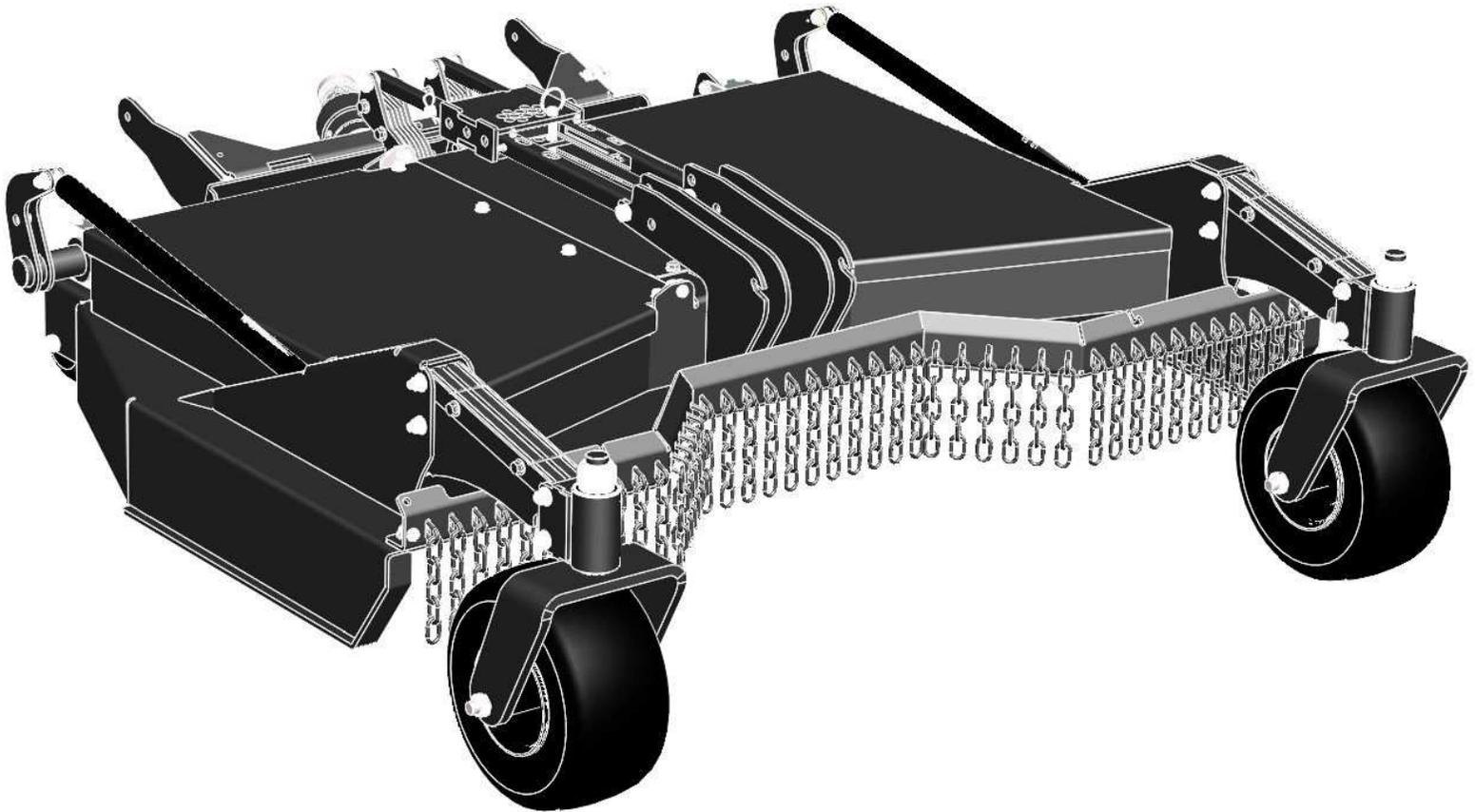


# **SWISHER<sup>®</sup>**

## **Response - Big Mow** **Commercial Pro Brush Cutter**



**Model #: ZTR51RC**

**Description: 51" Rough Cut Attachment**

**SWISHER ACQUISITION INC.**

**1602 Corporate Drive, Warrensburg Missouri 64093**

**Phone: 660-747-8183 FAX: 660-747-8650**

**Toll Free: 1-800-222-8183**

**Manufacturing quality lawn care equipment since 1945,  
Celebrating over 70 years of innovation**



### **OWNER'S MANUAL**

**STARTING SERIAL # L118-305001**

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# LIMITED WARRANTY

The manufacturer's warranty to the original consumer purchaser is:

This product is free from defects in materials and workmanship for a period of three (3) years for residential use and one (1) year for commercial use from the date of purchase by the original consumer purchaser.

We will repair or replace, at our discretion, parts found to be defective due to materials or workmanship. This warranty is subject to the following limitations and exclusions:

- 1) Limitations                      This warranty applies only to products which have been properly assembled, adjusted, and operated in accordance with the instructions contained within this manual. This warranty does not apply to any product of Swisher that has been subject to alteration, misuse, abuse, improper assembly or installation, shipping damage, or to normal wear of the product.
  
- 2) Exclusions                        Excluded from this warranty are normal wear, normal adjustments, normal maintenance, and battery\*(see battery section).

In the event you have a claim under this warranty, you must deliver the product to an authorized service dealer. All transportation charges, damage or loss incurred during transportation of parts submitted for replacement or repair under this warranty shall be borne by the purchaser. Should you have any questions concerning this warranty, please contact us toll-free at 1-800-222-8183. The model number, serial number, date of purchase and the name of the authorized Swisher dealer from whom you purchased the mower will be needed before any warranty claim can be processed.

THIS WARRANTY DOES NOT APPLY TO ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES AND ANY IMPLIED WARRANTIES ARE LIMITED TO THE SAME TIME PERIODS STATED HEREIN FOR ALL EXPRESSED WARRANTIES. Some states do not allow the limitation of consequential damages or limitations on how long an implied warranty may last, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may have other rights, which vary from state-to-state. This is a limited warranty as defined by the Magnuson-Moss Act of 1975.

# INTRODUCTION

**Congratulations!** Thank you for purchasing Swisher's Rough Cut Deck Attachment. This machine is built for the greatest efficiency and rapid clearing of large areas. The tilt feature along with the safety chains allow operators to perform routine maintenance. The Heavy Duty 3/16" Steel Deck and Dual Break away Cutting Blades will make quick work in the most overgrown brushy areas!

**This manual is a valuable document. Following the instructions for use, service, maintenance, etc. can greatly increase the performance and life of your machine.**

**NOTE:** If you have never used a Zero Turn mower before, refer to the Operation Controls section of this manual before attempting to operate one for the first time.



**THIS SAFETY ALERT SYMBOL IDENTIFIES AN IMPORTANT SAFETY MESSAGE IN THIS MANUAL THAT HELPS YOU AND OTHERS AVOID PERSONAL INJURY OR EVEN DEATH. DANGER, WARNING, AND CAUTION ARE SIGNAL WORDS USED TO IDENTIFY THE LEVEL OF HAZARD. HOWEVER, REGARDLESS OF THE HAZARD, BE EXTREMELY CAREFUL.**

**DANGER:** Indicates an **IMMINENTLY HAZARDOUS SITUATION!** If not avoided, **WILL RESULT** in death or serious injury.

**WARNING:** Indicates a **POTENTIALLY HAZARDOUS SITUATION!** If not avoided, **COULD RESULT** in death or serious injury.

**CAUTION:** Indicates a **POTENTIALLY HAZARDOUS SITUATION!** If not avoided, **MAY RESULT** in minor or moderate injury. It may also be used to alert against unsafe practices.

## **General:**

**IMPORTANT!** In this operator's manual, left and right, backward and forward are used in relation to the normal operator's position on the tractor.

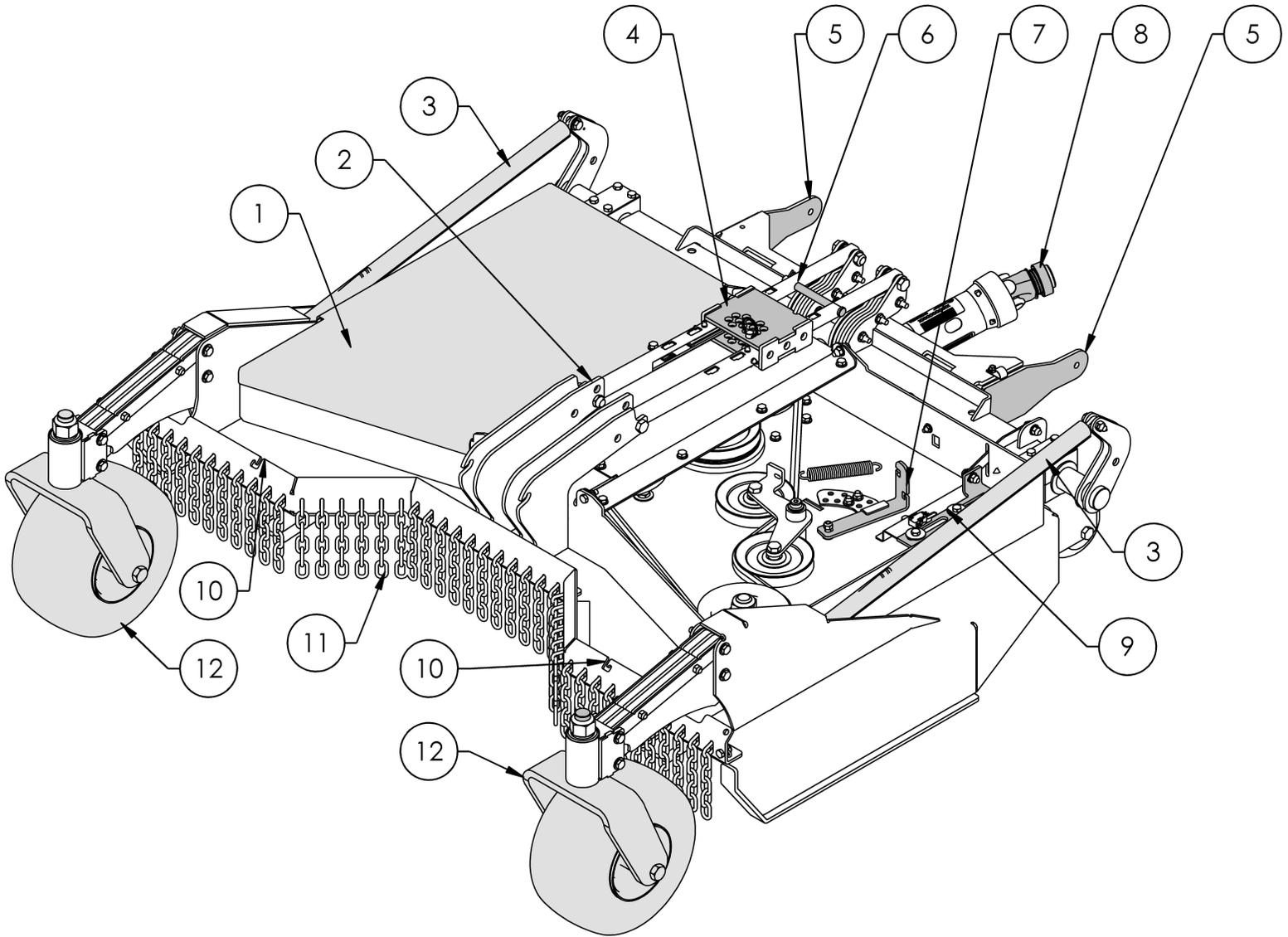
## **Read Before Operating:**

- This machine is constructed for cutting brush covered areas. The manufacturer's directions concerning operation, maintenance and repairs must be carefully followed.
- This machine must only be operated, maintained and repaired by persons who are familiar with the machine's special characteristics and who are well versed in safety instructions.
- Accident prevention regulations, other general safety regulations, occupational safety rules and traffic regulations must be followed without fail.
- Unauthorized modifications to the design of the machine may absolve the manufacturer from liability for any resulting personal injury or property damage and may void the warranty.
- Read and observe all safety instructions on your mower and in the manual.

## **Refer to your tractor manual for the following instructions:**

- Know how to set the parking brake – Lift up on the brake handle until locked.
- Know how to turn mower blades off – PTO switch pushed down.
- Know how to stop the engine – Turn key to off.
- Know how to stop the unit – Return control handles to neutral.

# FEATURES



- 1 Hinged Deck Belt & Pulley Covers
- 2 Maintenance Mode - Strap Mount Location
- 3 Leveling Chains w/ Adjustable Turnbuckle
- 4 Mow Height Adjustment Plates
- 5 Deck to Tractor Mounting Arms
- 6 Mowing Mode - Strap Mount Location

- 7 Belt Tension Release Lever
- 8 PTO Shaft Quick Disconnect
- 9 Electrical - Winch Control & Engine Cutoff
- 10 Deck Tilt Safety Chain Mounting Points
- 11 Chain Debris Guard
- 12 Swiveling Caster Wheels

# SAFETY INSTRUCTIONS

These instructions are for your safety. Read them thoroughly & carefully.



This Safety Alert Symbol indicates important messages in this manual. When you see this symbol, carefully read the message that follows and be alert to the possibility of personal injury.



## General Use:

- Read all instructions in this operator's manual and on the machine before starting it. Ensure that you understand them and then abide by them.
- Learn how to use the machine, operate its controls safely, how to stop quickly, and recognize safety decals.
- **DO NOT use this machine without the tractor in place and both machines properly connected.**
- Only allow the machine to be used by adults who are familiar with its use and operation.
- Make sure nobody else is in the area of the machine when you start the engine, engage the drive, or operate the machine.
- Stop the machine if someone enters the work area.
- Clear the area of any objects such as stones, toys, etc. that may be caught or thrown by the blades.
- **DO NOT use this machine without the Guards or Belt Covers in place.**
- Stop the engine and disconnect the spark plug before performing maintenance checks.
- Never attempt to inspect the PTO shaft with the engine running and always remove the ignition key and spark plug wires before clearing debris.
- Never take passengers. The machine is only intended for use by one person.
- Always look around before and during reversing maneuvers.
- Slow down before turning.
- Disengage the blades when not mowing.
- Be careful when rounding fixed obstacles so that the blades do not hit them.
- Extreme caution should be used when utilizing the equipped lights in low light conditions.
- Keep the machine a safe distance from holes or other irregularities in the ground.
- Never use the machine if you are tired, if you have consumed alcohol or if you are taking other drugs or medications that can affect your vision, judgment or coordination.
- Beware of traffic when working near or crossing a road.
- Never leave the machine unsupervised with the engine running.
- Always disengage the blades, engage the parking brake, stop the engine and remove the ignition key before leaving the machine.
- Never allow children or other persons not trained in the use of the machine to use or service it. Local laws may regulate the age of the user.
- Make sure that you have first aid equipment close at hand when using the machine.
- Always make sure long hair is not left down when servicing and/or operating the machine. Make sure hair is out of the way of any moving parts or pinch points.
- Inspect the attachment and tractor before each use. Make sure all hardware is in place and tightened properly.
- Make sure this attachment is in good operating condition and properly connected and secured.
- Check and double check that the drive line PTO locking collar moves freely and is securely engaged to the tractor's PTO groove.
- Never use the machine when barefoot. Always wear protective shoes or boots.
- Always wear protective glasses or full visor and hearing protection when assembling or operating.
- Never wear loose clothing that can get caught in moving parts.
- Check that any safety or informational decals are in place and legible. Replace any damaged decals.

*Safety instructions continued on next page....*

**Remember: The operator is responsible for avoiding dangers or accidents.**



**WARNING**



**When using the machine, approved personal protective equipment shall be used. Personal protective equipment cannot eliminate the risk of injury, but it will reduce the degree of injury if an accident does occur. Ask your retailer for help in choosing the right equipment.**



# SAFETY INSTRUCTIONS

These instructions are for your safety. Read them thoroughly & carefully.



This Safety Alert Symbol indicates important messages in this manual. When you see this symbol, carefully read the message that follows and be alert to the possibility of personal injury.



## **Children:**

- Children are often attracted to the machine and mowing work. Serious accidents may occur if you fail to be on guard for children in the area of the machine.
- Never assume that children will stay put where you last saw them.
- Keep children away from the mowing area and under close supervision by another adult.
- Shut off the machine if children enter the work area.
- Never allow a child to ride with you.
- Never allow children to operate the machine.
- Be extra cautious near corners, bushes, trees or other objects that block your view.

## **Slope Operation:**

- Remove obstacles such as stones, tree branches, etc.
- Mow up and down, not side to side. Never drive the mower on terrain that slopes more than 15 degrees.
- Avoid starting or stopping on a slope. If the tires begin to slip, disengage the blades and drive slowly down the slope.
- Always drive evenly and slowly on slopes.
- Do not make sudden changes in speed or direction.
- Avoid unnecessary turns on slopes. If it becomes necessary, turn slowly and gradually downward if possible.
- Watch for holes, ruts or bumps. On uneven terrain, the machine can tip more easily. Long grass or other debris can hide obstacles.
- Drive slowly and use small movements of the steering controls.
- Do not mow wet grass. It is slippery, and the tires can lose their traction, allowing the machine to slide.
- Do not try to stabilize the machine by putting a foot on the ground.

## **Mowing Safety:**

- Before using, always visually inspect to see that the blades, blade bolts and cutter assembly are not worn or damaged. Replace worn or damaged blades and bolts in sets to preserve balance.
- On multi-bladed machines, take care as rotating one blade can cause other blades to rotate.
- Do not attempt to tilt the machine to the maintenance position while mowing.
- Before using, always visually inspect to see that all bolts and nuts are secure.
- Never mow in the direction of people or property. Debris could be thrown out of the front that can cause serious injury and property damage.

## **Maintenance & Storage:**

- Keep all nuts, bolts and screws tight to be sure the equipment is in safe working condition.
- If storing equipment over long periods of time remove all grass clippings, grass build up, and debris from the equipment to prevent corrosion.
- Replace worn or damaged parts for continued safe operation.
- When machine is to be parked, stored or left unattended the parking brake should be set and any attachments should never be left in the tilted position unless the safety chains are used to secure the attachments.
- Only tilt the deck to maintenance mode when on a smooth and level surface.
- Remove the ignition key to prevent unauthorized use.

## **Training:**

**All users should seek and obtain professional and practical instruction. Such instruction should emphasize:**

- The need for care and concentration when working with ride-on machines.
- How to properly connect and disconnect the tractor and attachment.
- How to properly drive, control, and operate a ride-on machine with an attachment connected.

## **Operation Safety:**

- Do not operate the machine in a confined space.
- Always disengage PTO, set parking brake, turn the engine off, and remove the key when leaving the machine during operations.
- Never direct discharge of material toward bystanders or allow anyone near the machine while in use.
- Never operate the machine near bodies of water, retaining walls, cliffs or tall curbs. Give the machine ample room to operate and turn around.
- Never operate the machine with defective guards or without safety protective devices in place.
- Disengage the PTO switch, set the brake, stop the engine, remove the ignition key and disconnect the spark plug wires:
  - Before clearing blockages.
  - Before checking, clearing or working on the machine.
  - After striking a foreign object, inspect the machine for damage and make repairs before restarting and operating the equipment.
  - If the machine starts to vibrate abnormally (check immediately).
  - Before making height adjustment unless adjustment can be made from the operator's position.

# SYMBOLS & DECALS



This Safety Alert Symbol indicates important messages in this manual. When you see this symbol, carefully read the message that follows and be alert to the possibility of personal injury.



## WARNING

### AVOID SERIOUS INJURY OR DEATH

- Read and follow owner's manual.
- Keep hands and feet away from discharge area and blades
- Avoid sudden turns, sudden changes in direction, and sudden changes in speed.
- Go up and down hills (15° maximum), not across.
- If machine stops going uphill, stop blades and back down slowly.
- Look down and behind before and while moving backwards.
- Do not operate when children or others are around.
- Never carry children or others as passengers.
- Keep safety devices (guards, shields, defectors, switches, etc.) in place and operating.
- Remove objects that could be thrown by blades.
- Always set parking brake before leaving seat.
- Be sure blades and engine have stopped before placing hands or feet near blades.
- Know safe operating instructions before starting engine.

18795

18795 - Warning Decal

## WARNING

**SERIOUS INJURY OR DEATH MAY RESULT FROM MACHINE ROLLOVER**

- Failure to follow these instructions could result in serious injury or death
- Do not operate machine on steep slopes or near drop offs
- Avoid sharp and/or quick turns
- Do not exceed the machine weight rating of the ROPS
- Always use the seat belt when the ROPS is locked in the upright position
- Do not jump if machine tips
- If ROPS is foldable
  - Always keep the ROPS fully extended
  - **WHEN ROPS MUST BE DOWN-**
    - Do not use seat belt
    - Drive with extra care
- If equipped with seat platform, Do not operate machine without seat platform pins in place

**286304500**

ROPS Warning Decal

## IMPORTANT

Operator must be seated to start engine.

OD73

Operator must be Seated Decal - OD73

## IMPORTANT

Before exiting the vehicle disengage blades, turn off engine, and engage the parking brake

18797

Before Exiting Decal - 18797

## NOTICE

DO NOT ALTER ELECTRICAL SYSTEM. WRONG WIRING CONNECTIONS WILL DAMAGE ELECTRICAL COMPONENTS AND MAY MAKE THE SAFETY SWITCHES INOPERATIVE

OD74

Notice Do Not Alter Wiring Decal - OD74

## CAUTION

UNSTABLE SURFACE

# NO STEP

OD11

No Step Decal - OD11

# DANGER

KEEP HANDS and FEET AWAY

OD55

Triangle Danger Decal - OD55

## DANGER

### ROTATING DRIVELINE

CONTACT CAN CAUSE DEATH

## KEEP AWAY!

DO NOT OPERATE WITHOUT - ALL DRIVELINE, MOWER AND EQUIPMENT SHIELDS IN PLACE. DRIVELINE IS SECURELY ATTACHED AT BOTH ENDS.

19486

Danger / Entanglement - 19486

## WARNING

### FLYING DEBRIS

EYE INJURY AND/OR CUTS POSSIBLE. KEEP PEOPLE CLEAR OF AREA WHEN MOWING. USE CHUTE GAURD/COVER OR COMPLETE GRASS CATCHER WHEN MOWING. DEBRIS MAY CAUSE INJURY

OD43

Flying Debris Decal - OD43

**(P) PARKING BRAKE**

CAUTION: VEHICLE MUST BE AT A COMPLETE STOP BEFORE ENGAGING THE BRAKES. DO NOT ATTEMPT TO ENGAGE THE BRAKES WHILE THE VEHICLE IS MOVING.

IMPORTANT: REFER TO MANUAL FOR FURTHER OPERATING INSTRUCTIONS.

**TO ENGAGE:**

1. PULL UP ON THE RIGHT (BENT) HANDLE UNTIL LOCKED IN THE UP (ENGAGED) POSITION.

**TO DISENGAGE:**

1. PULL UP SLIGHTLY ON THE BRAKE HANDLE TO RELEASE TENSION UNTIL THE LOCKING PLATE CAN BE PUSHED DOWN TO RELEASE ITSELF FROM THE LOCKED POSITION.
2. ONCE UNLOCKED, PUSH THE BRAKE HANDLE DOWN UNTIL OUT OF TRAVEL.

**HYDRO BY-PASS OPERATION:**

1. THE LEFT HANDLE IS TO ACTIVATE THE HYDRO BY-PASS AND OPERATES, SEPARATELY, THE SAME AS THE BRAKE ARM. USE ONLY WHEN ENGINE IS TURNED OFF AND MACHINE IS ON LEVEL GROUND.

19484

Brake / Bypass Decal - 19484

A TRADITION OF QUALITY SINCE 1945

www.swisherinc.com

MODEL NO.

SERIAL NO.

Serial # ID Tag

# UNCRATING & ASSEMBLY

## Tools Required:

Gloves, Tire pressure gauge, Nail bar or claw hammer, Wire snips, Gloves, Protective eyewear.

## Removing the attachment from the crate:

- Before disassembling the crate and connecting the two machines make sure they are both on a level surface.
- Using nail bar or claw hammer, remove the top and side crate panels.
- Dispose of top and side panels of the crate.
- Remove loose parts and packing material.
- Cut any banding, strapping, or chocks that may be holding the attachment to the crate.
- Check tire pressure on all wheels. *Refer to specifications page 11.*
- This brush mower attachment may be mounted to the tractor while still on the crate base. Push the attachment towards the rear of the crate base but do not let it roll off completely, Chock the wheels to prevent accidental shifting. Otherwise carefully remove the attachment from the crate base.

## Attaching To Tractor

- Disconnect the spark plug wire of the BigMow tractor and place where it cannot make a connection.
- Attach the safety chains to the ROPS and small chain clips to hold the tractor foot rest up out of the way. **(FIG 1)**
- Engage the hydro bypass lever and push the tractor behind the attachment. Line up the mounting arms to the mating connection points on the tractor. Apply a small amount of Moly EP grease to mounting arms.
- Pull out and twist the locking pins on the tractor to hold the pins open.
- Run the winch strap out far enough to connect to the first strap mounting point (Mowing Mode Strap Mount Location on page 5). Remove the Ball Lock Pin from the Mow Height Adjustment Pin Plate if present. **(FIG 2)**
- Connect the deck wire harness to the tractor. **DO NOT START THE TRACTOR!**
- Push the tractor and attachment together fully engaging the attachments mounting arms. Rotate the lock pins on the tractor to release them from the open position. Verify the pins are fully seated through the mounting arms. If necessary, the winch strap can be drawn in or otherwise adjusted to help align the mounting arm angle. **(FIG 3)**
- Connect the PTO shaft to the splined gearbox shaft of the tractor by sliding back the locking collar on the PTO coupler and pushing the coupler over the splined gearbox shaft until the locking collar **SNAPS back completely**. Double check the PTO Quick Disconnect is secure by pulling on the PTO shaft without activating the quick disconnect collar.
- Reconnect the spark plug wire

**Read all operating instructions, safety instructions, and customer responsibilities before operating this machinery.**

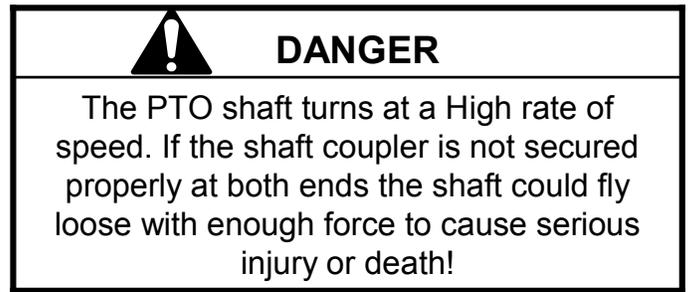


FIG. 1

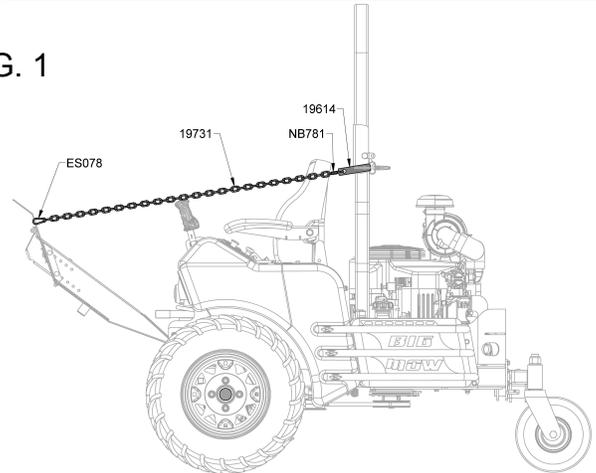


FIG. 2  
Mowing mode  
strap location.

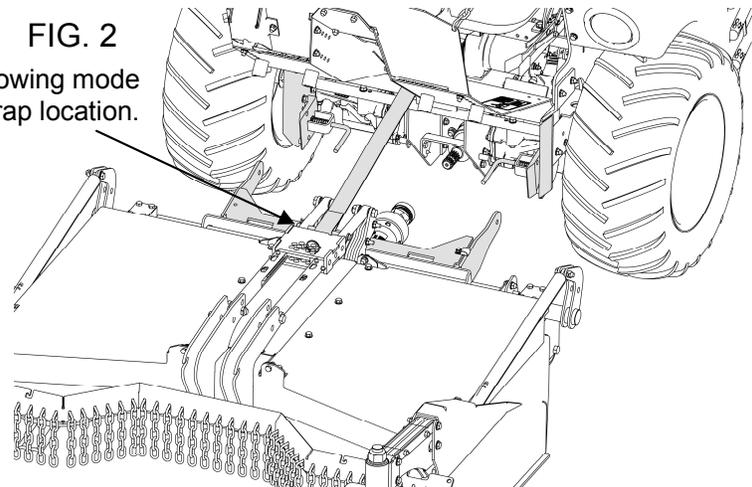
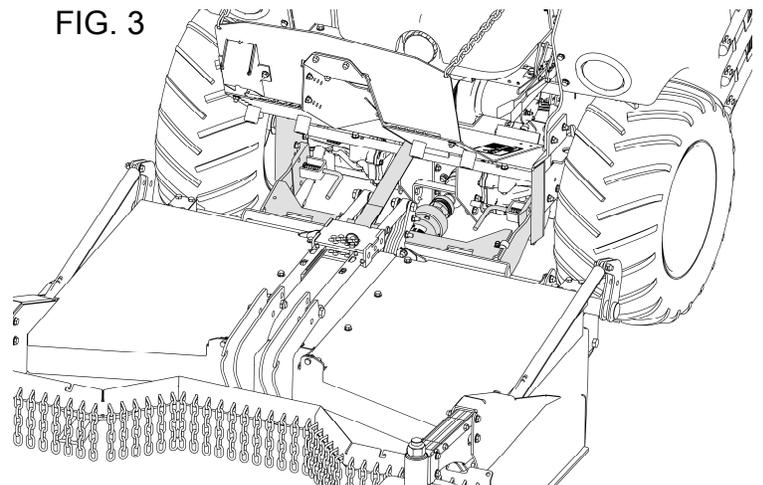


FIG. 3



# CUSTOMER RESPONSIBILITIES



## **WARNING**

**STOP THE ENGINE AND  
DISCONNECT THE SPARK PLUGS  
BEFORE MAKING ANY ADJUSTMENTS  
TO THE MACHINE!**

### **Operator Presence System:**

- Be sure to check that the operator presence and interlock systems are working properly before every use. If your mower does not function as described, repair the problem immediately. See the tractor manual for all tractor related safety interlocks.
- The attachment must be connected in order to start the engine of the tractor. If it is not properly or securely connected, the engine will not start.
- If using a mower attachment, any attempt to tilt the deck into the maintenance position with the engine still running should shut off the engine. If this happens lower the deck back down to a level position before attempting to restart the engine.
- The deck height/tilt switches will cut out at the top of the deck height as well as the end of the tilt function. This is to prevent overloading of the winch. When these positions are reached the winch should not be able to continue lifting. However the deck can be let down, which should reset the switch operation.

### **Tires:**

- Maintain proper air pressure in all tires (SEE SPECIFICATIONS section)
- Keep tires free of gasoline, oil or insect control chemicals which can harm rubber.
- Avoid stumps, stones, deep ruts, sharp objects and other hazards that may cause tire damage.
- If operating in an area with thorns, it is recommended to fill the tires with sealant.

### **Blade Maintenance:**

For best results, mower blades must be kept sharp. Replace bent or damaged blades.

- Engage brakes & safely tilt front of mower (SEE WARNING).
- Install safety chains (supplied with tractor) to the front edge of the deck before working under the machine.
- Refer to Service and Adjustments section for instructions.

### **V-Belts:**

Check V-belts for deterioration and wear before each use and replace if necessary. Replace belts if they begin to slip from wear. Refer to Quick Reference and Service & Adjustment sections of this manual for instructions on belt part numbers and how to properly replace belts.

### **Overall Unit Care:**

Reduce the risk of fire by removing grass, leaves and other debris that may accumulate on the machine. Allow the machine time to cool before cleaning or putting it in storage.

Wash mower periodically. Clean above and below deck. Keep all electrical connections clean and secure.

### **Driving & Transport on Public Roads:**

- Check applicable road traffic regulations before driving and transporting on public roads.
- If the machine is transported, you should always use approved fastening equipment and ensure that the machine is well anchored to the towing vehicle.
- The cutting deck should also be lowered to the lowest position and the parking brake engaged during transport.



## **WARNING**

**When it is necessary to tilt the mower for any repair or service, use safety chains and/or jack stands to provide adequate support. DO NOT rely on hydraulic or mechanical jacks.**



## **WARNING**

**Do not overinflate the tires. Serious injury can occur if the tire explodes**



## **CAUTION**

**Stop engine, apply brakes, and remove ignition key for safety. Disconnect spark plug wires. Wear heavy, thick gloves when holding onto blade. Avoid the sharp edge of the blade.**

# CUSTOMER RESPONSIBILITIES

## Specifications

PTO STYLE	Splined w/ Spring Loaded Locking Collar, Guarded
LIFT MECHANISM	Supplied on Accompanying Tractor
DECK LEVELING	Chain w/ Adjustable Turnbuckles
ARTICULATION DIRECTION(S)	Front to Back & Side to Side
TIRE SIZE	FRONT: 11 X 6 X 6 w/ 5/8 Bearing
TIRE PRESSURE	FRONT: 40 psi Max
¾-10 BLADE BOLT TORQUE	200 ft. lbs
CENTER ½-20 SPINDLE BOLT TORQUE	50 ft. lbs
CUTTING HEIGHT	Approximately 1.25" – 5"
CUTTING WIDTH	51"
BLADES	Three Break Away Blade Assemblies
DECK LIFT	Electric Switch; Foot or Hand Operated
UNIT MEASUREMENTS	LENGTH: 61.5" WIDTH: 54.5" HEIGHT: 17" WEIGHT: 495 lbs

## Maintenance Schedule

	Before Each Use	8 Hours	25 Hours	50 Hours	100 Hours	Season	Before Storage
Check Tire Pressure	X	X					
Check Operator Presence	X						
Check for Loose Fasteners	X				X		X
Sharpen/Replace Mower Blades			X <sup>3</sup>				
Grease PTO Shaft Joints		X <sup>2</sup>		X			
Grease Slide Tubes			X <sup>2</sup>				
Check Belts	X						
Remove Any Debris	X <sup>4</sup>					X	X

1 – Change more often when operating under a heavy load or in high ambient temperatures.

2 – Service more often when operating in dirty or dusty conditions.

3 – Replace blades more often when mowing in sandy soil.

4 – Clean off more frequent when mowing in tall or dry grass conditions or with excessive debris.

# OPERATION

## **Starting:**

- Starting Instructions are also included on the right side fender compartment decal of the tractor.
- Before starting the vehicle, be sure the area is clear of any people or animals.
- Operator must be sitting in the seat (with seat belt fastened and the ROPS in the upright position).
  - Control handles must be in the neutral lockout position.
  - PTO switch must be in the disengaged position (pushed down).
  - Brake must be engaged.
  - Front attachment must be connected including the attachment wiring harness and be in an operating position, not in the maintenance/tilt position.
  - Throttle should be in the “slow” position.
- Turn ignition key until engine starts. If the engine struggles to start, engage the choke until the engine fires, then disengage the choke before operating.
- Once started, increase the engine RPM and engage the blades. Increase the engine RPM to maximum when mowing.

## **Adjusting The Cutting Height**

1. Starting with the deck resting on the ground, make sure the winch strap is attached to the correct place. **See FEATURES on page 5, “Mowing Mode Strap Mount Location”**
2. Lift the deck higher than the desired position then place the pin in the desired hole on the Mow Height Adjustment Plates (page 5).
3. Once the pin is securely positioned, lower the deck until the weight of the mower is resting on the pin and tension is released from the winch strap.
  - **Important:** Always release tension from the winch strap when operating to help extend the life of the strap.
4. To change the deck height repeat steps 2 & 3 listed above.
5. The mowing height may be increased while mowing using the foot switch or the switch on the tractors console. This will allow the operator to temporarily raise the mowing height to mow over thicker patches or avoid hitting obstacles. The deck should be lowered back to the pre-set pin position to reduce stress on the winch strap.



## **WARNING**

**Carbon Monoxide. A running engine gives off carbon monoxide, a poisonous gas that can kill you. Do not operate the engine in an enclosed area. Only operate in a well ventilated area.**

## **Operating the Brush Mower**

- Before operating this attachment make sure you are familiar and comfortable with the tractor controls and operation and have read the tractor owner’s manual.
- Make sure there are no bystanders in the area. Flying debris could cause serious injury.
- It is recommended to first drive around in a clear level area to become familiar with the operation and feel of the machine without the blades engaged. This machine is heavy and will effect maneuvering at different speeds.
- The correct ground speed for cutting depends on the terrain conditions and material density. Traveling too fast can cause a loss of control and poor cutting performance.
- Always be aware of your surroundings while operating the cutter. If operating near trees or tall brush be mindful of overhead dangers such as dead limbs falling on to the operator. Avoid areas where falling debris is a danger.
- This brush cutter is capable of cutting down and mulching trees up to 3 inches in diameter. Make sure you know which way trees will fall so they do not fall on top of you!
- Inspect the area to be cut for utilities, rocks, fences, fence posts, or any other objects you do not intend to cut or it could cause damage to the brush mower.
- Before approaching the area to be cut, engage the blades and make sure they are up to cutting speed.
- The PTO driveline is guarded to reduce the chances of grass and weeds becoming wrapped around the driveline. It is best to engage the PTO drive in areas that have been cut already or do not contain tall grasses and weeds. Shut off the ignition and remove the spark plug wires before clearing debris wrapped on the PTO shaft. Do not operate until the debris has been removed to prevent damage to the guard and shaft.
- If the blade speed slows down while cutting, slow down your travel speed and allow the blades to regain the proper rotating speed.

# SERVICE & ADJUSTMENTS

## Deck Maintenance Mode

Refer to next page for visual reference

- Whenever placing the deck into the tilted maintenance position ALWAYS secure the deck using both safety chains to prevent injury or loss.
- Refer to page 5 for all features, descriptions and strap mounting locations.
- To tilt the deck start by finding a safe, smooth and level area before performing the following steps.
- Engage the brake, turn off the engine, remove the key and disconnect the sparkplugs.
- Exit the machine and stand on the left side next to the left control panel. Keep your hands and feet clear of the deck when performing these steps to reduce risk of injury.
- Use the deck height switch to raise the deck and relieve tension off of the deck height pin. Once there is no tension on the pin, **REMOVE IT AND SET IT ASIDE!**
- Lower the deck until the anti-scalp rollers make contact with the ground and make sure there is slack on the winch strap.
- Connect the two safety chains to each side of the ROPS.
- Lift the floor pan and secure it in an upright position using the safety chains. (Fig. 4)
- Remove the pin securing the winch strap to the rear of the deck
- Use the deck height switch to gain more slack until the strap is long enough to pin the strap to the front of the deck using the longer pin you just removed. Refer to Fig. 5 for proper location.
- Use the same switch to begin removing the slack in the strap. Once all slack is removed and slight tension is on the strap, start tilting the deck into the maintenance position.
  - The switch will cut out once the deck reaches its maximum tilt angle. This is normal to the function of the machine and can be reset by lowering the deck back towards the ground.
- Remove the safety chains from the floor pan and allow it to rest against the deck.
- Connect the safety chains to the mounting points on the front edge of the deck, leaving as little amount of slack as possible.
- Once both chains are properly connected and secure, lower the deck slightly to remove the slack in the chains, or until there is slack in the winch strap.
- Use extreme caution when working underneath the deck.
- Always wear proper hearing and eye protection when working on equipment.

## **WARNING**

**This attachment is very heavy and can crush and cause serious injury.**

**Follow instructions for securing the attachment in Maintenance Mode before performing any maintenance.**

FIG. 4

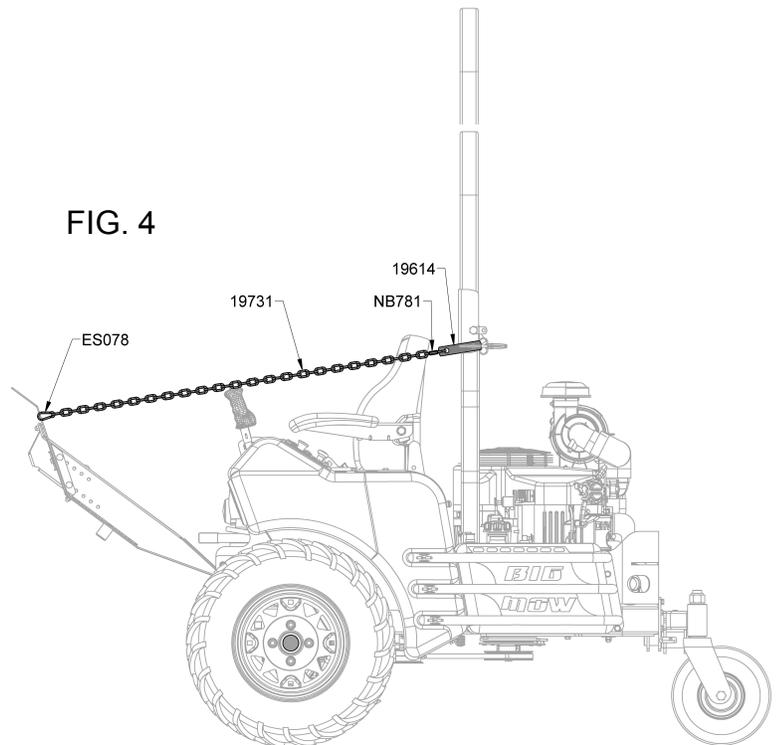
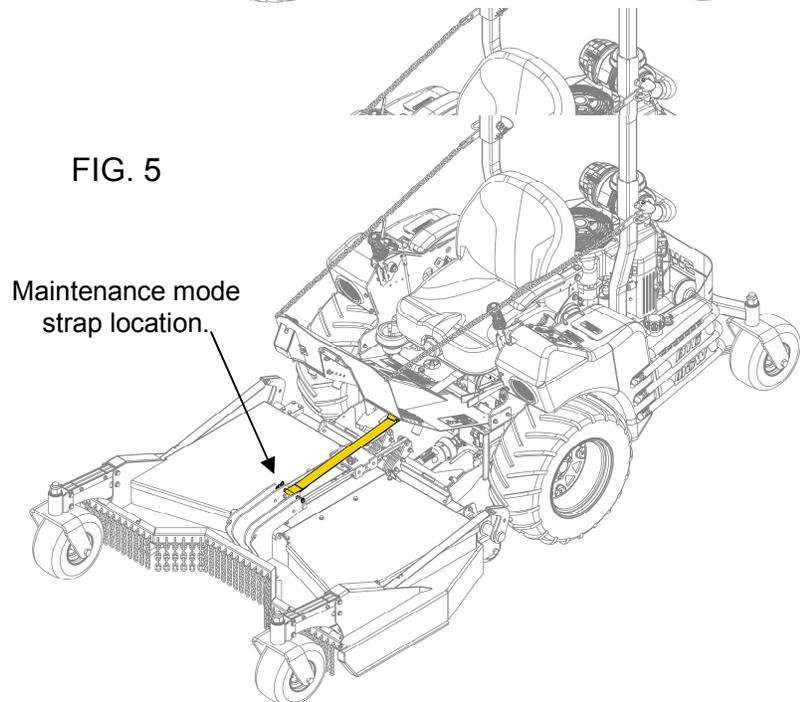
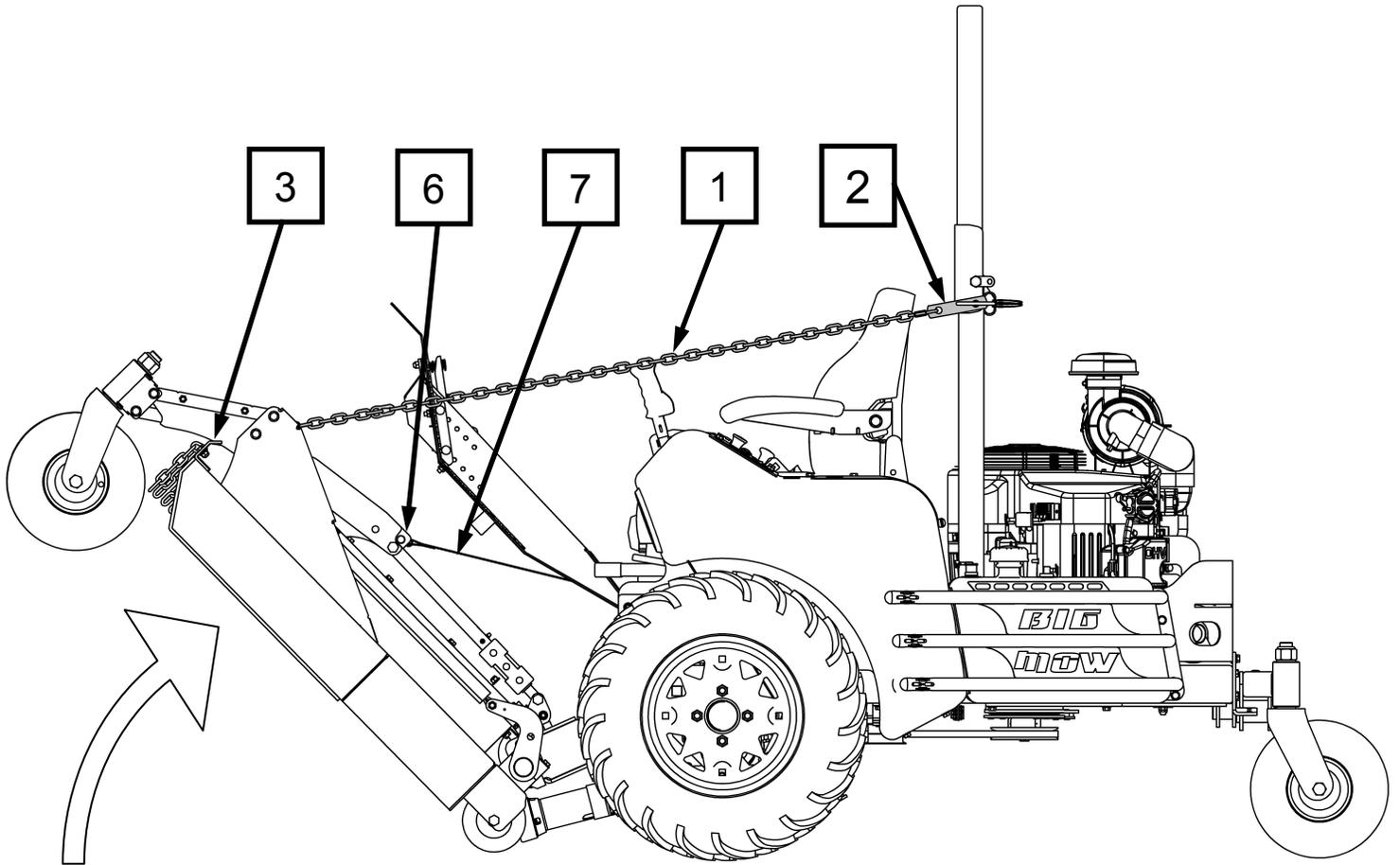


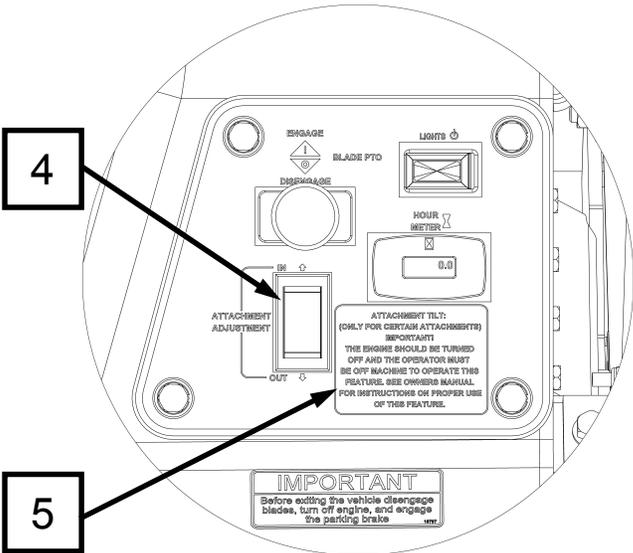
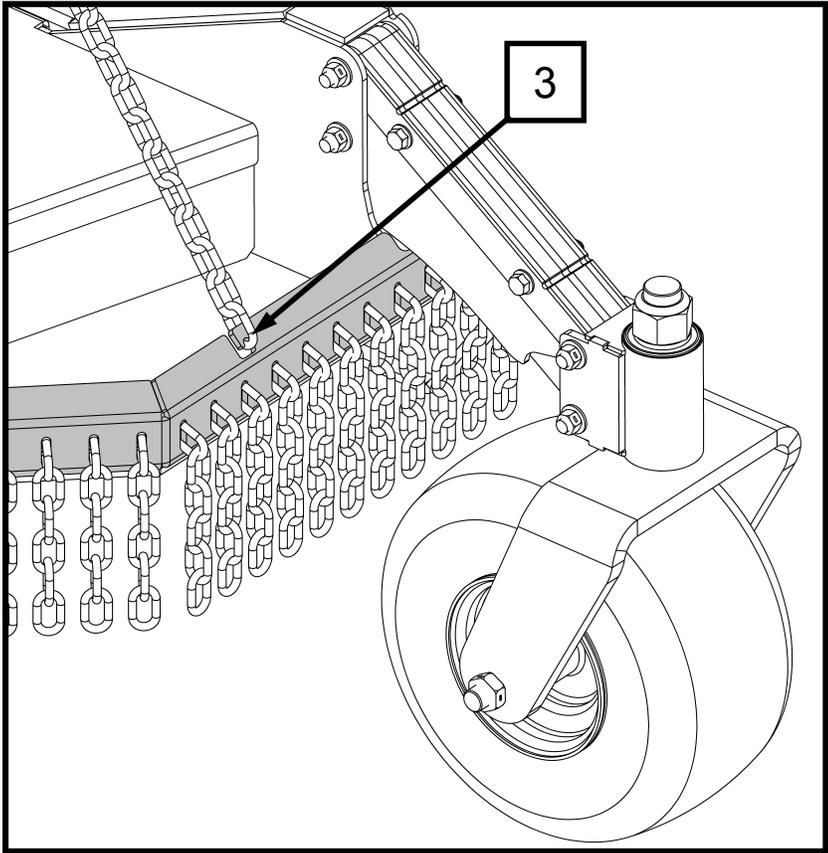
FIG. 5



# SERVICE & ADJUSTMENTS



1. Safety Chain(s)
2. ROPS Safety Chain Mount
3. Deck Safety Chain Mount
4. Deck Height/Tilt Switch
5. Maintenance Mode Instructions
6. Front Strap Mounting Location
7. Winch Strap



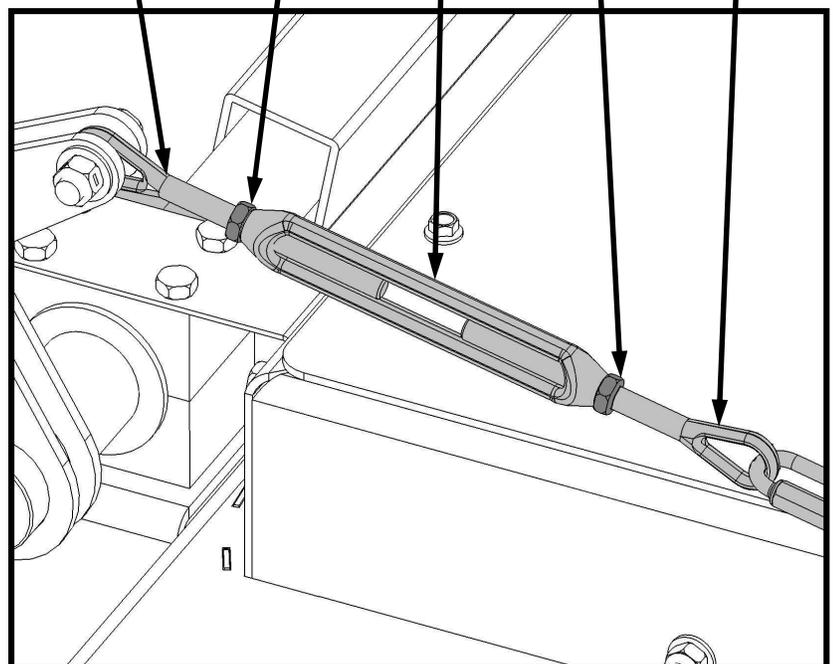
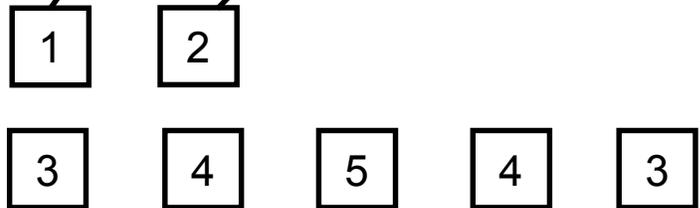
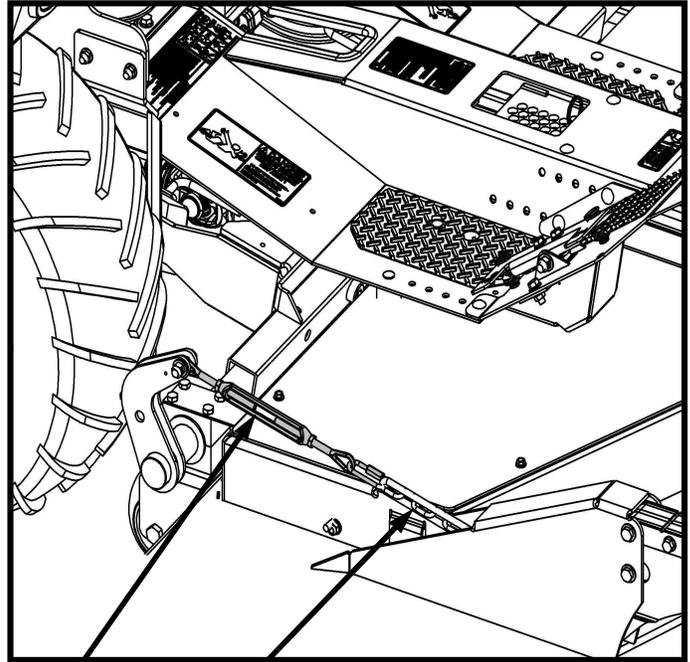
# SERVICE & ADJUSTMENTS

## Deck Leveling

If the deck does need adjustment, either side to side or front to back, follow the steps below.

- Find a level and smooth area to perform the work.
- Apply the parking brake, shut off the machine, remove the key and disconnect the spark plug.
- Raise the deck to the highest cutting height setting.
- Determine which side needs to be adjusted by measuring from the ground to the tip of each blade on each side of the mower. For side to side adjustment the blades should be parallel with the back edge of the deck for accurate measurements. If the measurements are within a  $\frac{1}{4}$ " of each other then no adjustment is needed.
- Pull back the GnarlyWraps™ from the chain that needs to be adjusted. Only perform adjustments on one side if possible.
- Loosen each locking nut on the turnbuckle.
- Hold the eyebolt on the end that is connected to the chain to keep it from spinning and begin turning the turnbuckle until the measurements are within  $\frac{1}{4}$ " of each other. Shortening the turnbuckle will increase the measurement whereas lengthening the turnbuckle will reduce it.
- Use small adjustment increments (1 to 2 full turns at a time).
- Once no more adjustments are needed, tighten the locking nuts on the turnbuckle while continuing to hold the eyebolt that is connected to the chain.
- Reinstall the GnarlyWraps™ onto the chain. The wraps are required for safe and proper operation.

1. Turnbuckle Assembly
2. Chain
3. Turnbuckle Eyebolt
4. Lock Nut(s)
5. Turnbuckle



# SERVICE & ADJUSTMENTS

## Deck Belt Routing & Replacement

For replacement belt part number refer to Replacement Parts Quick Reference Chart in this manual.

### Removal

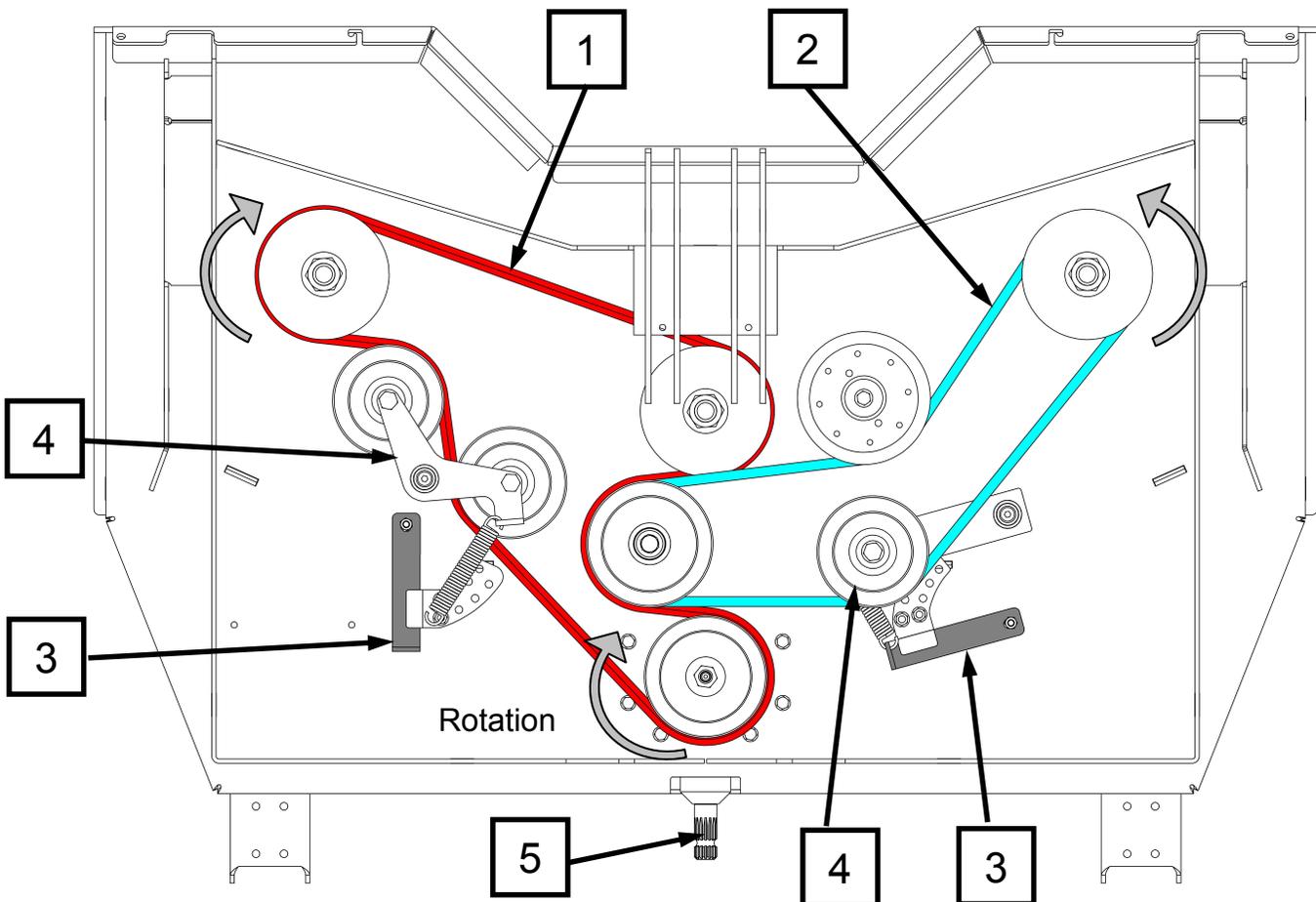
- Apply parking brake.
- Turn off machine and disconnect spark plug wires.
- Lower the deck to its lowest position.
- Open the belt covers (not shown).
- Release the tensioning idler lever(s) by pulling them out from under the lever latch, lift up slightly and release the spring tension.
- Once loose, remove the belt from the deck.

### Replacement

- Install new belt by placing it around all pulleys. Refer to routing diagram below.
- The belt should be loose at this time.
- Return the idler tensioning lever to its original location.
- Close the belt covers.
- Reconnect the spark plugs.

1. Left Deck Belt: PN 21402
2. Right Deck Belt: PN 21416
3. Idler Tension Lever.
4. Tensioning Idler
5. PTO Shaft (Input)

Front of Unit (Top View)



# SERVICE & ADJUSTMENTS

## PTO Shaft

- Before every use, check to make sure the PTO shaft is securely attached to both the tractor and attachment gearboxes.
- Before every use, check the PTO shaft u-joints to make sure they are not damaged or worn. Simply lift up and down on the shaft when it is securely connected to both pieces of equipment. If there is excessive movement then the PTO shaft may need to be replaced.
- If there is excessive vibration during operation, disengage the PTO switch, set the brake, stop the engine, remove the ignition key and disconnect the spark plug wire(s) and immediately inspect the PTO shaft. Refer to Troubleshooting section.
- It is recommended to grease all PTO Shaft joints every 8 hours (50 hours for extended intervals).
- Lubricate all fittings with a good quality lithium soap compatible EP grease meeting the N.L.G.I. #2 specification and containing no more than 1% Molybdenum Disulfide.
- An EP grease meeting the N.L.G.I. #2 specification and containing 3% Molybdenum Disulfide may be substituted in the telescoping members only.

## Gearbox

- The gearboxes are lubricated and sealed components. If used and maintained properly, these gearboxes do not require lubrication changes.
- If there are internal component failures within the gearbox, it is recommended to replace the entire gearbox.
- However, if the failed internal components are serviced and/or replaced then new lubrication is required.
- This gearbox requires 4 oz. of Bentonite grease. A recommended brand is Brooks Benalene 900-P-RP.

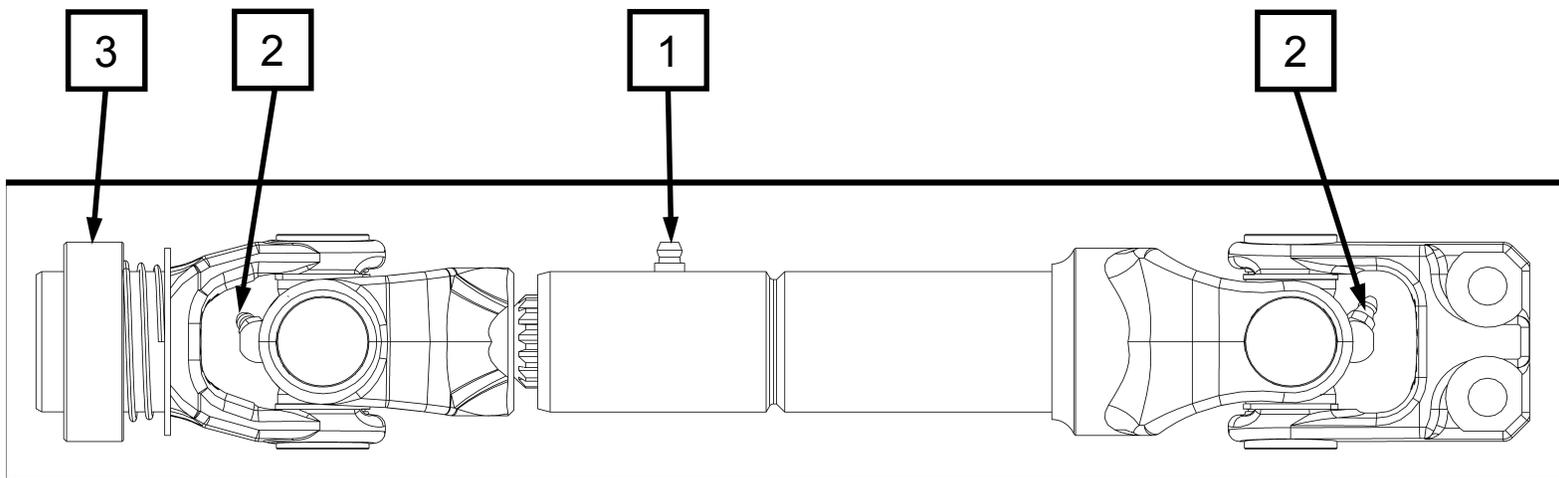
## Mower Blades Sharpening and Replacement



### WEAR HEAVY GLOVES

- Place the tractor and attachment on a level surface.
- Engage the brake and remove the ignition key. Raise the mower deck (see maintenance mode page 13-14).
- The blade disc assembly can be removed from the keyed spindle shaft by removing the center 1/2" bolt, washer and 1/4" key.
- Alternatively the blade disc assembly can be left on the spindle and the individual blades can be removed by removing the 3/4" bolts from the top side of the disc that hold the blade nuts.
- The blades should be professionally sharpened equally in sets to maintain balance.
- The blades are bi-directional and can be turned over to the unused side between sharpening.
- Reinstall the bolts and washers in the reverse order they were removed or refer to the parts manual for assembly order.
- If the entire blade disc assembly was removed it is recommended to use a thread locking compound on the center 1/2" bolt during reassembly.

- |    |                                |
|----|--------------------------------|
| 1. | Telescoping Shaft Grease Point |
| 2. | U-Joint Grease Point(s)        |
| 3. | Sliding Locking Collar         |



# TROUBLESHOOTING

Problem	Cause	Correction
<b>Engine Will Not Turn Over</b>	<ol style="list-style-type: none"> <li>Deck still in maintenance/tilt mode.</li> <li>Battery is undercharged or failing.</li> </ol>	<ol style="list-style-type: none"> <li>Put the deck into its mowing mode.</li> <li>Charge or replace the battery</li> </ol>
<b>Excessive Vibration</b>	<ol style="list-style-type: none"> <li>Worn, bent or loose blade(s).</li> <li>Bent or damaged blade driver component(s).</li> <li>Loose part(s) and/or fastener hardware.</li> <li>Faulty blade driver assembly.</li> </ol>	<ol style="list-style-type: none"> <li>Replace blade(s); Tighten blade bolt.</li> <li>Replace blade driver or component(s).</li> <li>Tighten loose part(s) and/or hardware; Check for damage.</li> <li>Replace blade driver assembly.</li> </ol>
<b>Loss of Power To Engine</b>	<ol style="list-style-type: none"> <li>Faulty fuse.</li> <li>Deck lifted into maintenance/tilt mode.</li> <li>Wire harness not fully connected.</li> </ol>	<ol style="list-style-type: none"> <li>Replace faulty fuse.</li> <li>Put deck back into a proper operating position to restart engine.</li> <li>Ensure wire harness is connected.</li> </ol>
<b>Poor Cutting Performance</b>	<ol style="list-style-type: none"> <li>Worn, bent or loose blade(s).</li> <li>Mower deck is not level.</li> <li>Buildup of debris under deck.</li> <li>Faulty /damaged blade driver assembly or components.</li> </ol>	<ol style="list-style-type: none"> <li>Replace blade(s); Tighten blade bolt.</li> <li>Level deck using turnbuckles.</li> <li>Clean underside of mower deck.</li> <li>Replace blade driver assembly or components.</li> </ol>
<b>No Power To Winch</b>	<ol style="list-style-type: none"> <li>Faulty fuse or solenoid.</li> <li>Wire harness not fully connected.</li> <li>Damaged wire harness.</li> <li>Winch spool is bent or damaged.</li> <li>Strap is damaged or broke.</li> </ol>	<ol style="list-style-type: none"> <li>Replace fuse or solenoid.</li> <li>Ensure wire harness is connected.</li> <li>Replace wire harness.</li> <li>Replace winch.</li> <li>Replace strap.</li> </ol>
<b>No Power To Blades</b>	<ol style="list-style-type: none"> <li>No operator in seat when PTO switch is engaged.</li> <li>PTO shaft not connected to Tractor Gearbox.</li> <li>Bent or Damaged PTO shaft.</li> <li>Loose or damaged deck belt.</li> <li>Loose or damaged engine-to-gearbox belt (Tractor).</li> <li>Loose or faulty clutch wiring harness.</li> <li>Faulty clutch.</li> </ol>	<ol style="list-style-type: none"> <li>Must be an operator in seat when attempting to engage blades.</li> <li>Ensure the PTO shaft is connected to the Tractor gearbox.</li> <li>Replace PTO shaft.</li> <li>Tighten or replace deck belt.</li> <li>Tighten or replace engine-to-gearbox belt.</li> <li>Ensure clutch wiring is properly connected to clutch and harness.</li> <li>Replace clutch.</li> </ol>

**Note: Refer to the tractor manual for more troubleshooting tips that may include other symptoms or causes not included in this list.**

# MOWER IDENTIFICATION

## Mower Identification

Each mower has its own model number and serial number. The number for the attachment can be found on the back side of the upper belt surround (refer to Symbols & Decal section for reference). All mower parts listed herein may be ordered directly from Swisher or your nearest Swisher dealer.

## Unauthorized Replacement Parts

Use only Swisher replacement parts. The replacement of any part on this unit with anything other than a Swisher authorized replacement part may adversely affect the performance, durability and safety of this unit and may void the warranty. Swisher disclaims liability for any claims or damages, whether warranty, property damage, personal injury or death arising out of the use of unauthorized replacement parts.

### WHEN ORDERING PARTS, PLEASE HAVE THE FOLLOWING INFORMATION AVAILABLE:

- MODEL NUMBER - \_\_\_\_\_
- SERIAL NUMBER - \_\_\_\_\_
- DATE PURCHASED - \_\_\_\_\_
- PURCHASE FROM - \_\_\_\_\_
- PART NUMBER (W/ PAINT CODE) - \_\_\_\_\_
- PART DESCRIPTION - \_\_\_\_\_

**S.A.I.**  
1602 CORPORATE DRIVE  
WARRENSBURG, MO 64093

**www.swisherinc.com**  
TELEPHONE - 1-800-222-8183  
FAX - 1-660-747-3160

**cust.serv@swisherinc.com**

# REPLACEMENT PARTS

## Quick Reference

Swisher Part #	Part Description
21365	Cutting Blade – 6.3”
21366	Nut – RC Blade
4845	Bearing – Blade Spindle
21371TK	Blade Bearing Housing, Cast Iron
21402	Belt - BB Double Angle V-Belt
21416	Belt - B Section V-Belt, BK65
19290	Tire/Wheel – 11 x 6 – 5, 4 Ply
3511	Gauge – Wheel
21427	PTO Quick Disconnect with Guard
21369	PTO Guard Set (Guard Only)



## CAUTION

Use extreme care when working on machinery.

Before performing any maintenance, turn off engine, allow the unit to cool and remove the key. Disconnect spark plug wire.

Set Parking Brake by pulling up on brake arm until locked into the “engaged” position.

Do not wear watch or jewelry. Do not wear loose fitting clothes. Observe all common safety practices with tools.





# SWISHER HISTORY



Back before electricity came to rural Missouri Max Swisher was producing lawn mowers from his mother's chicken house. Max never liked to mow grass. He installed a gearbox on his family's lawn mower creating a self-propelled unit. By tying one end of a rope to the mower and the other end to a tree in the center of the yard the mower circled the tree, shortening the rope and guiding the mower in concentric circles. Max enjoyed relaxing under a shade tree while his invention did all the work.

Max had designed his first self-propelled rotary lawn mower to do his dirty work for him. Neighbors noticed his new invention and began asking him to make more. Today, over 70 years later, Swisher is still producing innovative lawn and garden and ATV/UTV equipment designed to give us all more "relaxing in the shade" time.

Swisher products have been featured nationally on television programs such as Regis and Kathie Lee and seen in publications like ATV Magazine, Country Journal, Popular Mechanics Magazine and others. In January 2000 Popular Mechanics Magazine named Max's zero turning radius riding mower one of the 20<sup>th</sup> century's top household inventions.

Swisher offers value and function in its products to meet your grounds maintenance needs.

**CELEBRATING OVER 70 YEARS OF INNOVATION  
SINCE 1945**

