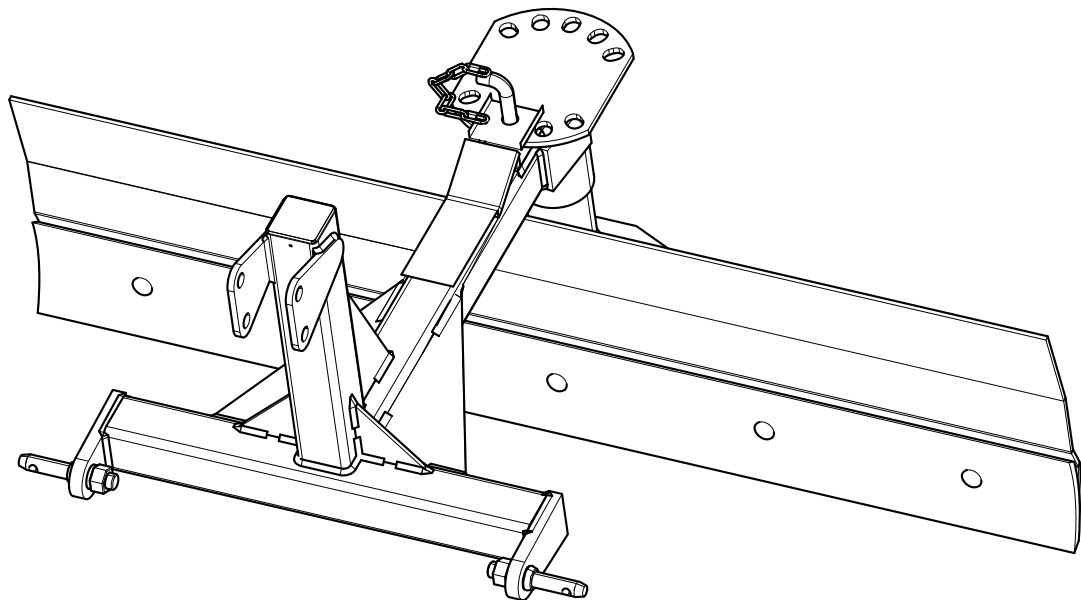


# RBX60

## REAR BLADE

### MANUAL



## Introduction

Thank you for purchasing the Summit Tractors Rear Blade. With proper use and maintenance, it will provide years of reliable service. Read this manual carefully to ensure safe and correct operation—improper use may cause injury or equipment damage.

### Intended Use

The Summit Tractors Rear Blade is designed to level, grade, spread, and backfill materials using a 3-point hitch tractor. It is intended solely for the purposes outlined in this manual.

### Using this Manual

This manual provides detailed guidelines for the safe assembly, operation, adjustment, troubleshooting, and maintenance of the Summit Tractors Rear Blade. It is intended to ensure optimal performance, minimize downtime, and enhance operator safety by identifying potential hazards and emphasizing accident prevention.

All users must read and understand the information in this manual prior to operation. **DO NOT** allow anyone who has not fully read and understood this manual to operate or maintain the equipment. Failure to follow the procedures described in this manual could result in equipment damage or physical injury or death to you or bystanders.

Please keep this manual with the machine for future reference, as it is considered part of the equipment. The lifespan of any machine depends on the care it receives. Refer to and review the manual often for preventative maintenance.

The information contained within this manual was current at the time of printing. Some parts or information are subject to change to ensure the best performance of the machine. The manufacturer reserves the right to make changes in materials or design of the product and its manual at any time without notice.

Throughout this manual, references are made to right and left directions. These are determined by standing behind the tractor and facing the direction of forward travel.

### Owner Assistance

Use only genuine service parts available from an authorized dealer. **DO NOT** modify the implement or use with attachments other than the options and accessories specified in this manual.

Contact an authorized dealer if service or repair parts are needed. Authorized dealers have trained personnel, repair parts, and equipment needed to service this implement.

For quick reference and prompt service, record the model number and any other identifying information, such as a dealer-applied serial number or UPC, in the space provided below, then again in the warranty section on page 19. These numbers will be needed when ordering service parts.

There may be times when circumstances not covered in the manual occur. At those times, or if this manual's instructions or safety requirements are not understood, please contact an authorized dealer.

## Dealer Contact Information

Name .....

Address .....

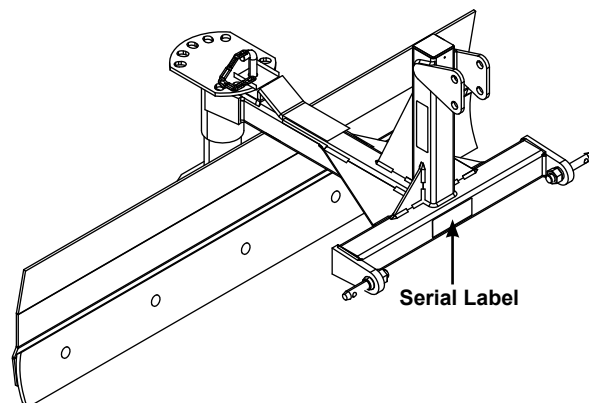
Phone .....

Email .....

Purchase Date .....

Serial Number / UPC .....

## Serial Label Location



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## Customer Support:

International Tractors  
USA Corporation  
1900 Parrish Drive SE  
Rome, GA 30161

770-209-3390  
support@summittractors.com



**This Operator's Manual should be regarded as part of the machine. Suppliers of both new and second-hand machines must supply this manual with the machine. Replacement manuals are available from authorized dealers or Summit Tractors Customer Support.**

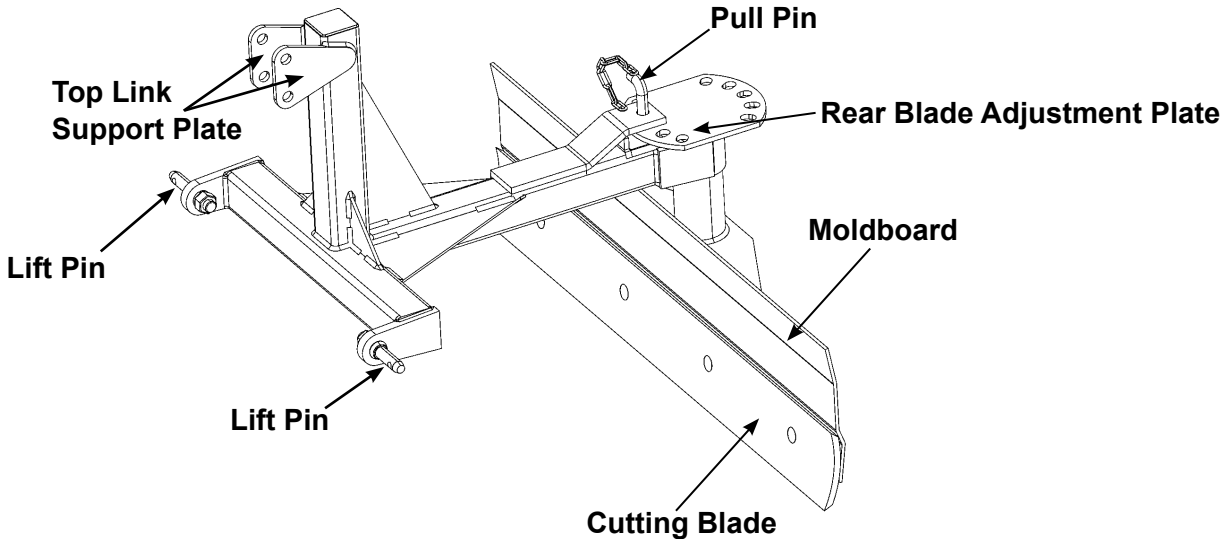
# PRODUCT DESCRIPTION

The Summit Tractors Rear Blade is a three-point hitch-mounted implement designed for leveling, grading, spreading, and backfilling materials. It is compatible with Category 1 tractors (see p. 13 for horsepower requirements).

Key features include a durable steel moldboard that can be adjusted to five forward or five reverse operating positions. Each unit is equipped with a 3/8" x 6" heat-treated cutting edge, which can be rotated to extend service life and maintain optimal cutting performance.

This implement is ideal for use on gravel roads, driveways, parking areas, and other surfaces where precise material control is essential.

## RBX60 Major Components



# SAFETY GUIDELINES

 **ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!**

Safety is a primary concern in the design and manufacture of the Summit Tractors Rear Blade. Unfortunately, efforts to provide safe equipment can be wiped out by an operator's single careless act.

In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, judgment, and proper training of personnel involved in the operation, transport, maintenance, and storage of equipment.

Throughout this manual, the term **IMPORTANT** is used to indicate that failure to observe procedures can cause damage to equipment. The terms **DANGER**, **WARNING**, and **CAUTION** are used in conjunction with the Safety Alert Symbol, (a triangle with an exclamation mark), to indicate the degree of hazard for items of personal safety.

## Safety Alert Symbol



This **SAFETY ALERT SYMBOL** identifies important safety messages on the equipment and in the operator's manual. When you see this symbol, be alert to the possibility of personal injury and carefully read the message that follows.

## Safety Signal Words

The safety labels on the machine and safety messages in this manual use a combination of symbols, signal words, and color-coding to identify the following hazardous situations or safety practices:



**DANGER**

The signal word **DANGER** on the machine and in the manual indicates a hazardous situation which, if not avoided, will result in death or serious injury.



**WARNING**

The signal word **WARNING** on the machine and in the manual indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



**CAUTION**

The signal word **CAUTION** on the machine and in the manual indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

**IMPORTANT**

The signal word **IMPORTANT** identifies procedures which must be followed to avoid damage to the machine.

**NOTE**

Notes indicate important information. This information may be repeated in other areas of the manual.

CALIFORNIA

Proposition 65 Warning

Diesel engine exhaust and some of its constituents are known in the State of California to cause cancer, birth defects, and other reproductive harm.

For more information, visit: [www.p65warning.ca.gov](http://www.p65warning.ca.gov)

# SAFETY GUIDELINES

## ***Training***

Safety instructions are important! Read all attachment and tractor manuals; follow all safety rules and safety label information. (Replacement manuals and safety labels are available from authorized Summit Tractors dealers.) Failure to follow instructions or safety rules can result in serious injury or death.

Operators needing assistance understanding any part of this manual should contact an authorized Summit Tractors dealer.

Operators must be instructed in and capable of operating the tractor, its attachments, and all controls safely. No one should operate the equipment without proper instructions. Operators must know how to stop the tractor engine and attached implement quickly in an emergency.

Never allow children or untrained persons to operate the equipment.

## ***Preparation***

Check that all hardware is installed. Always tighten hardware to torque chart specifications unless instructed otherwise in this manual.

Always wear relatively tight and belted clothing to avoid getting caught in moving parts. Wear sturdy, rough-soled work shoes and protective equipment for eyes, hair, hands, ears, and head; wear respirator or filter mask where appropriate.

Make sure implement is properly secured to tractor, adjusted, and in good operating condition.

Remove accumulated debris from the tractor and implement before operating.

Tractor must be equipped with Roll-Over Protection System (ROPS) or ROPS cab and seat belt. Keep seat belt securely fastened. Falling off tractor can result in death from being run over or crushed. Keep foldable ROPS system in "locked up" position at all times.

A minimum of 20% of tractor and equipment weight must be on the tractor's front wheels when implements are in transport position. Without this weight, tractor could tip over, causing personal injury or death. The weight may be attained with a loader, front wheel weights, ballast in tires or front tractor weights. Weigh the tractor and equipment. **DO NOT ESTIMATE!**

Make sure all safety labels are installed. Replace if damaged. (See pp. 6–7, **SAFETY AND INSTRUCTIONAL LABELS** section for location.)

Inspect and clear the area of large debris that could damage the implement during use.

## ***Transportation***

Always comply with all state and local lighting and marking requirements.

Transport only in daylight or satisfactory artificial light.

**DO NOT** allow riders on the tractor or implement.

**DO NOT** operate or transport on steep slopes.

Use extreme care and reduce ground speed on slopes and rough terrain.

**DO NOT** stop, start, or change directions suddenly on slopes.

**DO NOT** operate or transport equipment while under the influence of alcohol or drugs.

Tractor must be equipped with Roll-Over Protection System (ROPS) or ROPS cab and seat belt. Keep seat belt securely fastened. Falling off tractor can result in death from being run over or crushed. Keep foldable ROPS system in "locked up" position at all times.

Always sit in the tractor seat when operating controls or starting tractor engine. Securely fasten seat belt, place transmission in neutral, engage brake, and ensure all other controls are disengaged before starting tractor engine.

## ***Operation***

**DO NOT** operate or transport equipment while under the influence of alcohol or drugs.

Operate only in daylight or satisfactory artificial light.

Always comply with all state and local lighting and marking requirements.

**DO NOT** allow bystanders in the area when operating, attaching, removing, assembling, or servicing the implement.

# SAFETY GUIDELINES

## ***Operation Continued***

**DO NOT** allow riders on the tractor or implement.

Use extreme care when working close to fences, ditches, other obstructions, or on hillsides.

Keep hands, feet, hair, and clothing away from the tractor engine and attached implement while the tractor engine is running. Stay clear of all moving parts.

Always sit in the tractor seat when operating controls or starting tractor engine. Securely fasten seat belt, place transmission in neutral, engage brake, and ensure all other controls are disengaged before starting tractor engine.

Look down and to the rear to make sure area is clear before operating in reverse.

Be aware that tight turns may cause the implement to come into contact with the rear wheels of the tractor, potentially causing damage to the equipment or personal injury.

Watch for hidden hazards on the terrain during operation.

**DO NOT** operate or transport on steep slopes.

**DO NOT** stop, start, or change directions suddenly on slopes.

Use extreme care and reduce ground speed on slopes and rough terrain. When encountering rough terrain, reduce tractor speed to minimize horizontal movement of the implement.

Stop the tractor and implement immediately upon striking an obstruction. Turn off engine, remove key, inspect, and repair any damage before resuming operation.

Before leaving operator's seat, lower lift arms and set attached implement on the ground. Engage parking brake, stop engine, remove key, and unfasten seat belt.

Tractor must be equipped with Roll-Over Protection System (ROPS) or ROPS cab and seat belt. Keep seat belt securely fastened. Falling off tractor can result in death from being run over or crushed. Keep foldable ROPS system in "locked up" position at all times.

## ***Maintenance***

Make certain all movement of the tractor and implement components has stopped before approaching for service.

Follow these steps before detaching the implement from the tractor or performing any maintenance:

1. Lower the 3-point hitch and all raised components to the ground
2. Set parking brake
3. Stop engine
4. Remove key
5. Unfasten seat belt

**DO NOT** go underneath equipment (lowered to the ground or raised) unless it is properly blocked and secured. Never place any part of the body underneath the tractor or implement or between movable parts even when the engine has been turned off. Hydraulic system leak down, hydraulic system failures, mechanical failures, or movement of control levers can cause implement to drop suddenly, causing severe injury or death.

Always wear relatively tight and belted clothing to avoid getting caught in moving parts. Wear sturdy, rough-soled work shoes and protective equipment for eyes, hair, hands, ears, and head. Wear respirator or filter mask when appropriate.

Keep all persons away from operator control area while performing adjustments, service, or maintenance.

**DO NOT** perform service or maintenance on the implement while it is attached to the tractor and the engine is running.

Frequently check blades/tines/shanks. They should be sharp, free of nicks and cracks, and securely fastened. **DO NOT** handle blades/tines/shanks with bare hands. Careless or improper handling may result in serious injury.

**DO NOT** modify or permit anyone else to modify or alter the tractor, implement, or any of their components in any way, except as outlined in this manual.

Tighten all bolts, nuts, and screws to torque chart specifications. Check that all cotter pins are installed securely to ensure equipment is in a safe condition before putting implement into service.

# SAFETY GUIDELINES

## ***Storage***

Always use a tractor to position the implement for storage. **DO NOT** attempt to move the equipment by hand.

Securely block up the equipment for storage using supports sufficient to sustain the implement's weight.

Keep children, bystanders, and livestock away from the storage area.

# ASSEMBLY AND SETUP

The Summit Tractors Rear Blade ships fully assembled from the manufacturer. Operators must read the **ATTACHING**, **DETACHING** and **OPERATION** sections before attempting to use the equipment.

## ATTACHING

### Attaching to Tractor 3-Point Hitch

#### **WARNING**

**Avoid serious injury or death!**

**When implement is attached:**

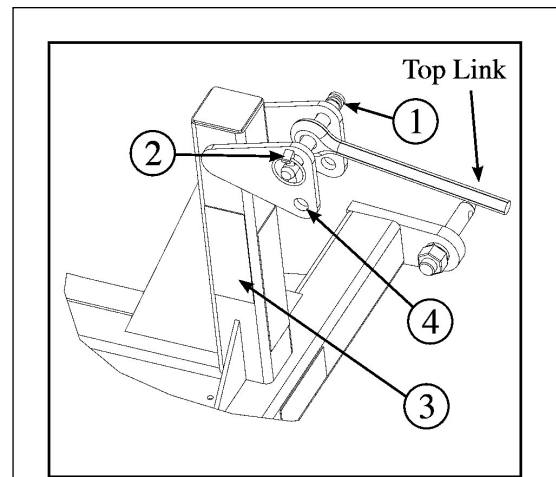
- Put transmission in **PARK** and engage parking brake as applicable.
- Make sure blade is at least 6" (15 cm) from tractor tires throughout complete range of 3-point hitch operation.
- **DO NOT** stand between tractor and implement.

The Summit Tractors Rear Blade is compatible with Category 1 tractors equipped with a 3-point hitch and side swing-type lift arms.

**NOTE:** Refer to the Product Specifications chart on page 13 to verify that the implement is compatible with the tractor's horsepower rating.

1. Adjust tractor drawbar to the shortest and highest position to avoid interference with the Rear Blade.
2. Back up tractor to Rear Blade with hitch points approximately in alignment.
3. Engage tractor parking brake and/or place transmission in "PARK".
4. Shut off tractor engine and remove key.
5. Remove tractor center link mounting hardware, then align center link with upper hole in Rear Blade hitch (See Figure 3).
6. Secure center link to Rear Blade with mounting hardware.
7. Install tractor draft links on hitch pins. Secure with linchpins (See Figure 4, page 9).

Figure 3



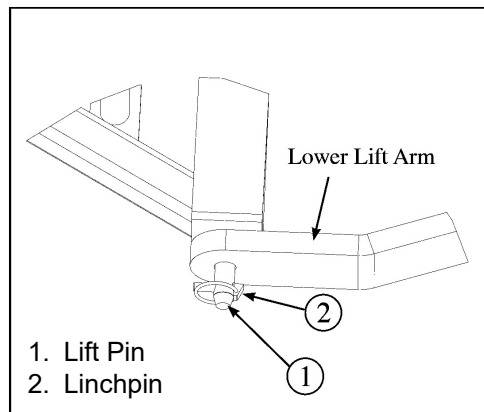
Top Link Attachment

1. Mounting Pin
2. Linchpin
3. Frame
4. Quick Hitch Attachment Point

## ATTACHING / DETACHING

### ***Attaching to Tractor 3-Point Hitch Continued***

Figure 4



8. Start tractor engine.
9. Slowly pull hitch control lever to raise Rear Blade. Check for interference.
10. Lower Rear Blade and adjust tractor center link until implement is level with the ground when in the down position.

### ***Attaching to Tractor Quick Coupler Hitch***

1. Install quick hitch bushings on hitch pins if needed.
2. Slowly push hitch control lever to lower hitch until quick hitch hooks are lower than Rear Blade hitch pins.
3. Back up tractor to Rear Blade hitch.
4. Raise hitch high enough to engage Rear Blade hitch pins in hooks.
5. Engage tractor parking brake and/or place transmission in "PARK". Turn off tractor and remove key.
6. Check that quick hitch is properly engaged on Rear Blade hitch pins and top bushing, then lower quick hitch handles to lock position.
7. Start tractor engine.
8. Slowly pull hitch control lever to raise Rear Blade. Check for interference.

### ***Attaching to Tractor Quick Coupler Hitch Continued***

9. Lower Rear Blade and adjust tractor center link until implement is level with the ground when in the down position.

### ***Detaching from Tractor 3-Point Hitch***

1. Lower Rear Blade to the ground, then set tractor parking brake and shut off tractor engine.
2. Remove linchpins from hitch pins, then detach draft links. Re-install pins on unit after detaching draft links.
3. Disconnect center link from hitch. Position tractor center link in transport location. Reinstall center link pin/hardware.
4. Start tractor engine, disengage parking brake and carefully drive tractor away.

### ***Detaching from Tractor Quick Coupler Hitch***

1. Shut off tractor engine, set parking brake, then raise both handles on quick hitch to unlocked position.
2. Start tractor engine.
3. Lower Rear Blade to the ground. Continue lowering quick hitch until hooks clear Rear Blade hitch pins.
4. Disengage parking brake and carefully drive tractor away.

# OPERATION

The operator is responsible for safely operating the equipment and must be properly trained. Before use, operators should familiarize themselves with the equipment, the tractor, and safety practices, as outlined in the safety rules and labels on pages 2 through 7.

The Summit Tractors Rear Blade is designed to level, grade, spread, and backfill materials.

## WARNING

### Avoid serious injury or death!

- **Tractor must be equipped with ROPS or ROPS cab and seat belt. Keep seat belt securely fastened. Falling off tractor can result in death from being run over or crushed. Keep foldable ROPS system in “locked up” position at all times.**
- **DO NOT allow children or untrained persons to operate the equipment.**
- **Keep bystanders away from equipment.**
- **Keep hands, feet, hair, and clothing away from equipment while engine is running. Stay clear of all moving parts.**

## CAUTION

### Avoid injury!

- **Stop tractor and equipment immediately upon striking an obstruction. Turn off engine, remove key, inspect and repair any damage before resuming operation.**
- **Always wear relatively tight and belted clothing to avoid getting caught in moving parts. Wear sturdy, rough-soled work shoes and protective equipment for eyes, hair, hands, hearing, and head. Wear respirator or filter mask where appropriate.**

## ***Operational Readiness Checklist***

Operators should verify the following before using the Summit Tractors Rear Blade.

1. Operator has reviewed the entire Operator’s Manual.
2. Overall condition good (i.e. paint, welds).
3. Tractor ROPS or ROPS Cab and seat belt must be in good working condition. Operators must keep seat belt securely fastened during operation.
4. Rear Blade is completely assembled.
5. All cotter pins and safety pins are properly installed.
6. All fasteners torqued to specifications in torque chart. (p. 17)
7. All safety and instructional labels in place and legible. (pp. 6–7)
8. Implement is correctly and securely attached to tractor. (pp. 8–9)

## ***Adjusting Implement Tilt***

1. Level the front and rear of the Rear Blade by adjusting the tractor’s 3-point top link.
  - a. Lengthening the top link will cause the blade to contact the ground with a sharper pitch and feed itself into the ground more readily.
  - b. Level the right and left side of the Rear Blade by shortening or lengthening the tractor’s 3-point draft arms.
  - c. Position 3-point lift arm sway blocks or tighten sway chains to eliminate side sway. Install side braces if necessary.

**NOTE:** The most effective operating position is level both front to back and side to side. With experience, the operator can determine the optimal setting to achieve the desired results.

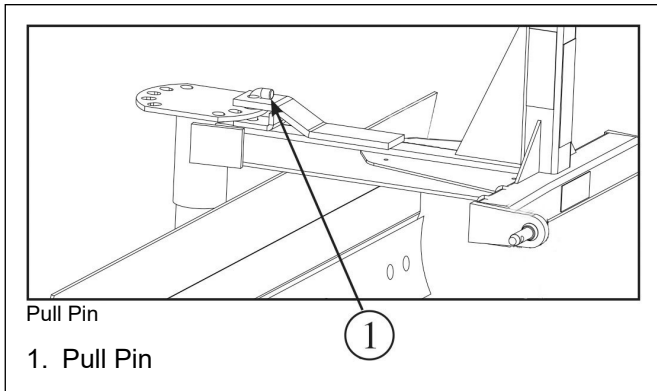
# OPERATION

## Reversing and Angling Rear Blade

For most tractors, the blade may be rotated 360° without unhooking the implement.

1. Remove pull pin (see Figure 5).
2. Rotate blade to desired position, then replace pull pin.
3. Lower the Rear Blade and drive tractor forward to begin grading operation.

Figure 5



## Cleaning

### AFTER EACH USE

1. Remove large debris such as dirt clumps, grass, and crop residue from the implement.
2. Inspect the implement for worn or damaged parts. Replace parts as needed.
3. Replace any safety labels that are missing or illegible. Safety labels are available from authorized Summit Tractors dealers.

### PERIODICALLY OR BEFORE EXTENDED STORAGE

1. Remove large debris such as dirt clumps, grass, and crop residue from the implement.
2. Clean the implement using a low-pressure water spray.
  - a. Be careful when spraying near edges of safety labels as water spray can peel label off surface.
  - b. Be careful when spraying near chipped or scratched paint as water spray can lift paint.
  - c. If pressure washer is used, follow the advice of the pressure washer manufacturer.
3. Inspect the implement for worn or damaged parts. Replace parts as needed.
4. Sand down scratches and the edges of areas of missing paint and coat with spray paint of matching color.
5. Replace any safety labels that are missing or illegible. Safety labels are available from authorized Summit Tractors dealers.

## Storage

### WARNING

**Avoid serious injury or death!**

- Always use a tractor to position the implement for storage. Never attempt to move the implement by hand.
  - Securely block up the implement on wooden blocks or other sufficient supports capable of sustaining implement weight.
  - Keep children, bystanders, and livestock away from the storage area.
1. Park the implement on a dry, level surface shielded from the elements.

# MAINTENANCE

This section is intended for operators with basic mechanical skills. Block up the Rear Blade for service, but note that working underneath the implement is not required. Operators should read and follow the safety information in this manual. For service assistance, contact an authorized Summit Tractors dealer.

## WARNING

**Avoid serious injury or death!**

- **Never go underneath equipment or between movable parts, even if the tractor engine is off. Hydraulic or mechanical failures, or movement of control levers, can cause unexpected drops or movement, resulting in severe injury or death.**
- **Service work does not require going underneath.**
- **Read the Operator's Manual for service instructions or have an authorized dealer perform service.**
- **Keep all persons away from the operator control area during adjustments or maintenance.**
- **Before dismounting tractor or performing service, disengage power, lower 3-point hitch and raised components, release hydraulic pressure, set the parking brake, stop the engine, remove the key, and unfasten seat belt.**

## CAUTION

**Avoid injury!**

- **Always wear relatively tight and belted clothing to avoid getting caught in moving parts. Wear sturdy, rough-soled work shoes and protective equipment for eyes, hair, hands, hearing, and head. Wear respirator or filter mask where appropriate.**

## **Rotating and Replacing Cutting Blade**

The Rear Blade uses one replaceable 3/8" x 6" cutting edge, which can be rotated for extended wear.

1. Securely block the implement to avoid tipping or falling.
2. Use a 5/16" wrench to remove each 5/8"-11 nylon lock nut and 5/8"-11 x 2" plow bolt securing the cutting edge to the Rear Blade moldboard (see Figure 7).
3. Rotate cutting edge 180° to use new edge, or replace if both edges are worn (see Figure 8).
4. Secure cutting edge to moldboard with plow bolts and nuts removed during Step 2.
5. Torque plow bolts to correct torque specifications (see page 17).

Figure 7

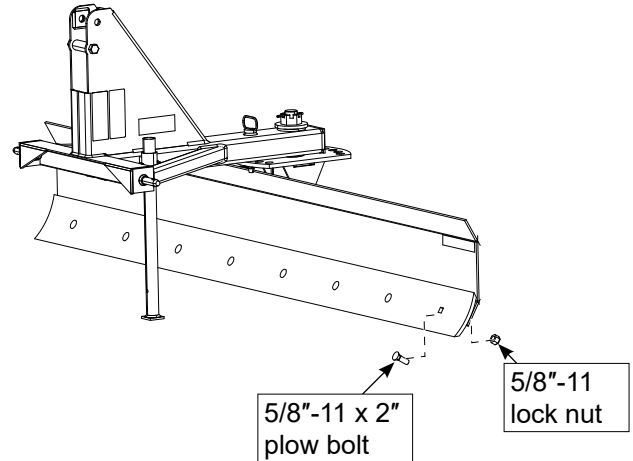
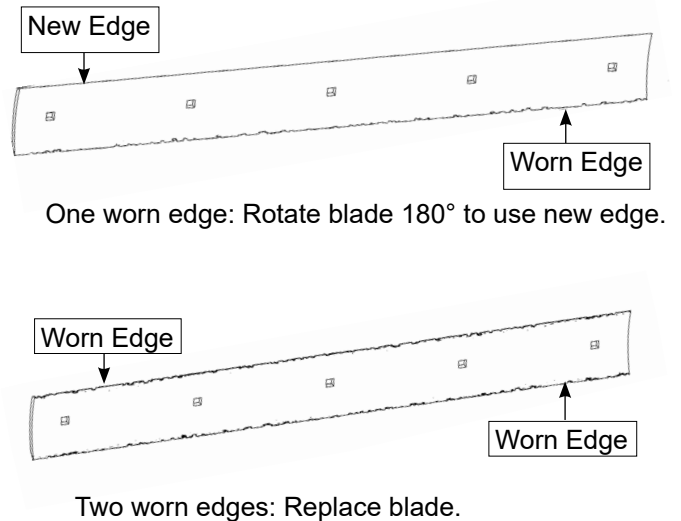


Figure 8



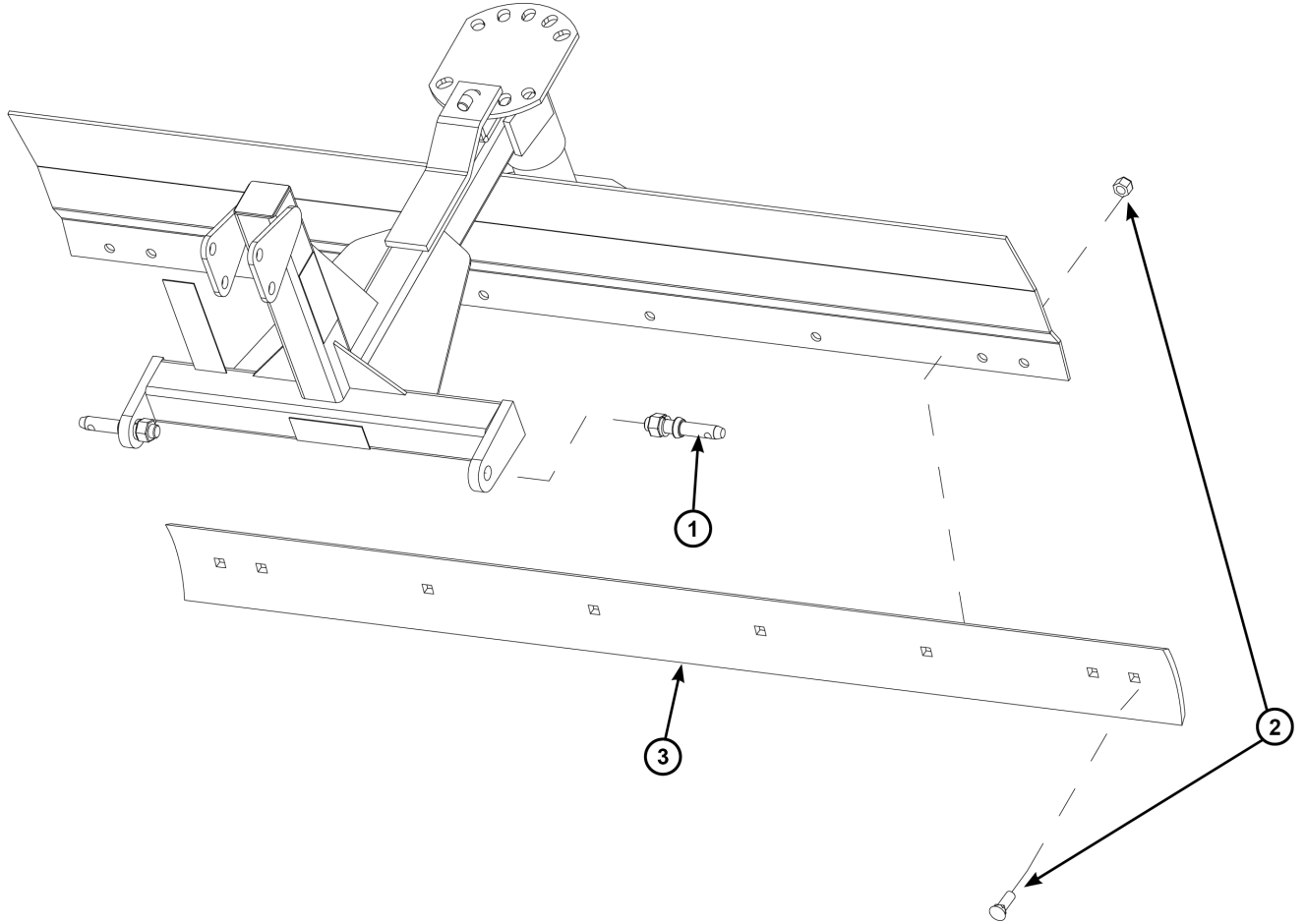
## PRODUCT SPECIFICATIONS

<b>Model</b>	<b>RBX60</b>
<b>Horsepower</b>	20–45
<b>Weight</b>	197 lb
<b>Working Width</b>	60"
<b>Moldboard Height</b>	15"
<b>Moldboard Thickness</b>	1/4"
<b>Hitch</b>	Cat 1 / quick hitch compatible
<b>Cutting Edge</b>	3/8" x 6" high carbon heat-treated blade (replaceable)
<b>Angling</b>	5 FWD/ 5 REV up to 45° right or left

## TROUBLESHOOTING

<b>Problem</b>	<b>Possible Cause</b>	<b>Possible Remedy</b>
Rear Blade is not leveling properly	Blade not adjusted correctly	Recheck blade tilt and angle
	Tractor not on level ground	Park on flat surface for adjustments
Blade is digging too aggressively	Blade angle too steep	Reduce blade angle
	Lower link arms too low	Raise lower link arms slightly
Blade is not cutting into the ground	Blade angle too shallow	Increase angle
	Not enough downward force	Adjust top link for more down pressure
Blade drifts sideways during use	Incorrect blade angle	Adjust angle to better match direction
	Tractor speed too high	Reduce ground speed
Uneven wear on cutting edge	Operating on uneven terrain	Replace or rotate cutting edge if worn
Blade will not stay in position	Lock pins or angle adjusters loose	Tighten all locking mechanisms and check for wear
Excessive vibration or noise	Loose hardware	Inspect and tighten bolts

# PARTS



ITEM#	PART#	QTY. ON UNIT	DESCRIPTION
1	C1L	2	CATEGORY 1 LIFT PIN
2	BCEM	1	BOLT SET FOR CUTTING EDGE (6PK)
3	RB5	1	60" CUTTING EDGE

# BOLT TORQUE CHART

Proper torque for American fasteners used on manufactured implement.  
Recommended Torque in Foot Pounds (Newton Meters).\*

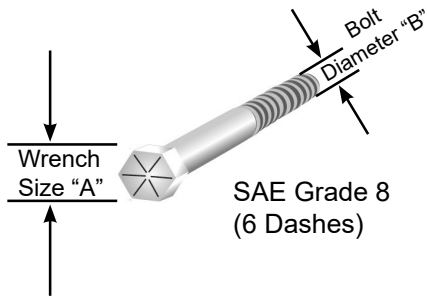
## AMERICAN Bolt Head Markings



SAE Grade 2  
(No Dashes)



SAE Grade 5  
(3 Dashes)



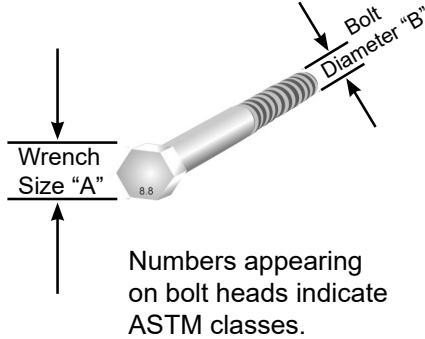
SAE Grade 8  
(6 Dashes)

WRENCH SIZE(IN.) "A"	BOLT DIAMETER (IN.) "B" AND THREAD SIZE	SAE GRADE 2	SAE GRADE 5	SAE GRADE 8
7/16	1/4 - 20 UNC	6 (7)	8 (11)	12 (16)
7/16	1/4 - 24 UNF	6 (8)	10 (13)	14 (18)
1/2	5/16 - 18 UNC	11 (15)	17 (23)	25 (33)
1/2	5/16 - 24 UNF	13 (17)	19 (26)	27 (37)
9/16	3/8 - 16 UNC	20 (27)	31 (42)	44 (60)
9/16	3/8 - 24 UNF	23 (31)	35 (47)	49 (66)
5/8	7/16 - 14 UNC	32 (43)	49 (66)	70 (95)
5/8	7/16 - 20 UNF	36 (49)	55 (75)	78 (106)
3/4	1/2 - 13 UNC	49 (66)	76 (103)	106 (144)
3/4	1/2 - 20 UNF	55 (75)	85 (115)	120 (163)
7/8	9/16 - 12 UNC	70 (95)	109 (148)	153 (207)
7/8	9/16 - 18 UNF	79 (107)	122 (165)	172 (233)
15/16	5/8 - 11 UNC	97 (131)	150 (203)	212 (287)
15/16	5/8 - 18 UNF	110 (149)	170 (230)	240 (325)
1 1/8	3/4 - 10 UNC	144 (195)	266 (360)	376 (509)
1 1/8	3/4 - 16 UNF	192 (260)	297 (406)	420 (569)
1 5/16	7/8 - 9 UNC	166 (225)	430 (583)	606 (821)
1 5/16	7/8 - 14 UNF	184 (249)	474 (642)	668 (905)
1 1/2	1 - 8 UNC	250 (339)	644 (873)	909 (1232)
1 1/2	1 - 12 UNF	274 (371)	705 (955)	995 (1348)
1 1/2	1 - 14 UNF	280 (379)	721 (977)	1019 (1381)
1 11/16	1 1/8 - 7 UNC	354 (480)	795 (1077)	1288 (1745)
1 11/16	1 1/8 - 12 UNF	397 (538)	890 (1206)	1444 (1957)
1 7/8	1 1/4 - 7 UNC	500 (678)	1120 (1518)	1817 (2462)
1 7/8	1 1/4 - 12 UNF	553 (749)	1241 (1682)	2013 (2728)
2 1/16	1 3/8 - 6 UNC	655 (887)	1470 (1992)	2382 (3228)
2 1/16	1 3/8 - 12 UNF	746 (1011)	1672 (2266)	2712 (3675)
2 1/4	1 1/2 - 6 UNC	870 (1179)	1950 (2642)	3161 (4283)
2 1/4	1 1/2 - 12 UNF	979 (1327)	2194 (2973)	3557 (4820)

# BOLT TORQUE CHART

Proper torque for metric fasteners used on manufacturer implement.  
Recommended Torque in Foot Pounds (Newton Meters).\*

## METRIC



\*Use 75% of the specified torque value for plated fasteners. Use 85% of the specified torque values for lubricated fasteners.

WRENCH SIZE (mm) "A"	BOLT DIA. (mm) "B"	ASTM 4.6	ASTM 8.8	ASTM 9.8	ASTM 10.9
8	5	1.8 (2.4)		5.1 (6.9)	6.5 (8.8)
10	6	3 (4)		8.7 (12)	11.1 (15)
13	8	7.3 (10)		21.1 (29)	27 (37)
16	10	14.5 (20)		42 (57)	53 (72)
18	12	25 (34)	74 (100)	73 (99)	93 (126)
21	14	40 (54)	118 (160)	116 (157)	148 (201)
24	16	62 (84)	167 (226)	181 (245)	230 (312)
30	20	122 (165)	325 (440)		449 (608)
33	22		443 (600)		611 (828)
36	24	211 (286)	563 (763)		778 (1054)
31	27		821 (1112)		1138 (1542)
46	30	418 (566)	1119 (1516)		1547 (2096)

# WARRANTY

## Manufacturer's Limited Warranty

Summit Tractors LLC, 3379 Peachtree Road NE Suite 555 Atlanta, Ga 30326, warrants to the original purchaser that the purchased product is free from defects in material and workmanship for a period of one (1) year commencing on the date of original purchase, as evidenced by the original receipt, and will, at its option, repair, replace, or issue credit for any product or part found to be defective.

This limited warranty shall only apply if this product has been operated and maintained in accordance with the Operator's Manual furnished with the product, and has not been subject to misuse, abuse, commercial or industrial use, neglect, improper maintenance, alteration or accident, or which has been used for a purpose for which the product was not designed. Damage resulting from the installation or use of any part, accessory, or attachment not approved by Summit Tractors LLC, for use with the product covered by the Operator's Manual, shall void the warranty as to any resulting damage.

This limited warranty is extended solely to the original purchaser of the product. Should the original purchaser sell or otherwise transfer this product to a third party, this warranty does not transfer to the third party in any manner.

## Warranty Disclaimer

This limited warranty is in lieu of, and Summit Tractors LLC disclaims and excludes any express and implied warranties with respect to the product including, without limitation, merchantability and fitness for a particular purpose. No other express warranty, whether written or oral, given by any person or entity, including a retailer, with respect to any product, shall bind Summit Tractors LLC.

Summit Tractors LLC's exclusive liability for breach of the limited warranty, as set forth above, on the product shall be to repair or replace the product within the warranty period in accordance with the terms of this limited warranty. The choice of remedy shall belong solely to Summit Tractors LLC. In no event shall Summit Tractors LLC be liable for any loss or damages of any other kind, whether direct, incidental, consequential including lost profits, exemplary, special or otherwise, including without limitation, expenses incurred for substitute or replacement product or for rental expenses to temporarily replace a warranted product.

Under no circumstance shall recovery, of any kind, be greater than the amount of the purchase price of the product purchased. Customer assumes all risk and liability for loss, damage, or injury to customer or customer's property and/or the property of others arising out of the misuse or inability to use the product.

## Legal Rights

This limited warranty gives you specific legal rights, and you may also have other rights which may vary from state to state. Some states do not allow any limitation on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations may not apply to you.

# WARRANTY

## Additional Information

Contact your authorized dealer for complete warranty information and assistance with warranty claims. Retain original sales receipt, and record the model number, serial number, and the date of purchase in the spaces provided below. This information will be helpful to the dealer if parts or service are required.

## Warranty Claim Information

Dealer Name .....

Dealer Address .....

Dealer Phone .....

Dealer Email .....

Purchase Date .....

Model Number .....

Serial Number/UPC .....

**PART NO.**  
**4000977**

**REV. B**

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