

TO THE DEALER:

Assembly and proper installation of this product is the responsibility of the Woods[®] dealer. Read manual instructions and safety rules. Make sure all items on the Dealer's Pre-Delivery and Delivery Check Lists in the Operator's Manual are completed before releasing equipment to the owner.

The dealer must complete the online Product Registration form at the Woods Dealer Website which certifies that all Dealer Check List items have been completed. Dealers can register all Woods product at dealer.WoodsEquipment.com under Product Registration.

Failure to register the product does not diminish customer's warranty rights.

TO THE OWNER:

Read this manual before operating your Woods equipment. The information presented will prepare you to do a better and safer job. Keep this manual handy for ready reference. Require all operators to read this manual carefully and become acquainted with all adjustment and operating procedures before attempting to operate. Replacement manuals can be obtained from your dealer. To locate your nearest dealer, check the Dealer Locator at www.WoodsEquipment.com, or in the United States and Canada call 1-800-319-6637.

The equipment you have purchased has been carefully engineered and manufactured to provide dependable and satisfactory use. Like all mechanical products, it will require cleaning and upkeep. Lubricate the unit as specified. Observe all safety information in this manual and safety decals on the equipment.

For service, your authorized Woods dealer has trained mechanics, genuine Woods service parts, and the necessary tools and equipment to handle all your needs.

Use only genuine Woods service parts. Substitute parts will void the warranty and may not meet standards required for safe and satisfactory operation. Record the model number and serial number of your equipment in the spaces provided:

Model:

Date of Purchase: _____

Serial Number: (see Safety Decal section for location)

Provide this information to your dealer to obtain correct repair parts.

Throughout this manual, the term **NOTICE** is used to indicate that failure to observe can cause damage to equipment. The terms **CAUTION**, **WARNING**, and **DANGER** 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.



This is the safety alert symbol. It is used to alert you to potential physical injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.



Indicates a hazardous situation that, if not avoided, will result in death or serious injury.



Indicates a hazardous situation that, if not avoided, could result in death or serious injury.



Indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

or **NOTICE**

Is used to address practices not related to physical injury.

NOTE Indicates helpful information.

ALITEC™ CENTRAL FABRICATORS® GANNON® WAIN-ROY® WOODS®



Woods Equipment Company

2 Introduction

Gen'l (Rev. 2/25/2016)

TABLE OF CONTENTS

INTRODUCTION
SPECIFICATIONS 4
GENERAL INFORMATION
SAFETY RULES
SAFETY DECALS
OPERATION
OPTIONAL EQUIPMENT 16
ASSEMBLY INSTRUCTIONS
OWNER SERVICE
DEALER CHECK LISTS 25
PARTS
BOLT TORQUE CHART
BOLT SIZE CHART & ABBREVIATIONS 41
PRODUCT WARRANTY 42
REPLACEMENT PARTS WARRANTY Inside Back Cover



ILEA EL INSTRUCTIVO!

Si no lee Ingles, pida ayuda a alguien que si lo lea para que le traduzca las medidas de seguridad.



This Operator's Manual should be regarded as part of the machine. Suppliers of both new and second-hand machines must make sure that this manual is provided with the machine.

SPECIFICATIONS

	<u>RB72.50</u>	<u>RB84.50</u>	<u>RB96.50</u>	<u>RB84.60</u>	<u>RB96.60</u>
Cutting Width	71"	83"	95"	83"	95"
Moldboard Height	17"	17"	17"	17-1/2"	17-1/2"
Moldboard Thickness	1/4"	1/4"	1/4"	5/16"	5/16"
Overall Height	41-1/4"	41-1/4"	41-1/4"	40"	40"
Overall Depth	50"	50"	50"	55"	55"
Weight (Mechanical)	455 lbs	475 lbs	495 lbs	657 lbs	682 lbs
Weight (Hydraulic)				705 lbs	730 lbs
Cutting Edge	1/2" x 6" Reversible	1/2" x 6" Reversible	1/2" x 6" Reversible	1/2" x 6" Reversible	1/2" x 6" Reversible
Angle Adjustments Forward	7, up to 45°	7, up to 45°	7, up to 45°	7/Hyd., up to 45°	7/Hyd., up to 45°
Angle Adjustments Backfill	7, up to 45°	7, up to 45°	7, up to 45°	7/Hyd., up to 45°	7/Hyd., up to 45°
Offset Adjustments	6", 12", 18"	6", 12", 18"	6", 12", 18"	Ratchet/Hyd., up to 20"	Ratchet/Hyd., up to 20"
Tilt Adjustments	5, up to 23°	5, up to 23°	5, up to 23°	Ratchet/ Hyd., up to 23°	Ratchet/ Hyd., up to 23°
Hitch	Cat. 1 or 2	Cat. 1 or 2			
(Optional) Quick Hitch	Cat. 1 or 2	Cat. 1 or 2			
Tractor HP (4WD) Rating	65 HP Max.	65 HP Max.	65 HP Max.	85 HP Max.	85 HP Max.
Accessories	Endplates	Endplates	Endplates	Endplates	Endplates
	Skid Shoes	Skid Shoes	Skid Shoes	Skid Shoes	Skid Shoes
	Hydraulic Angle	Hydraulic Angle	Hydraulic Angle	Tail Wheel	Tail Wheel

GENERAL INFORMATION

The purpose of this manual is to assist you in operating and maintaining your rear blade. Read it carefully. It furnishes information and instructions that will help you achieve years of dependable performance. These instructions have been compiled from extensive field experience and engineering data. Some information may be general in nature due to unknown and varying operating conditions. However, through experience and these instructions, you should be able to develop procedures suitable to your particular situation. The illustrations and data used in this manual were current at the time of printing, but due to possible inline production changes, your machine may vary slightly in detail. We reserve the right to redesign and change the machines as may be necessary without notification.

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



ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!



Safety is a primary concern in the design and manufacture of our products. Unfortunately, our 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, judgement, and proper training of personnel involved in the operation, transport, maintenance and storage of equipment.

It has been said "The best safety device is an informed, careful operator." We ask you to be that kind of operator.

INSTALLATION

■ Hydraulics must be connected as instructed in this manual. Do not substitute parts, modify, or connect in any other way.

TRAINING

■ Safety instructions are important! Read all attachment and power unit manuals; follow all safety rules and safety decal information. (Replacement manuals and safety decals are available from your dealer. To locate your nearest dealer, check the Dealer Locator at www.WoodsEquipment.com, or in the United States and Canada call 1-800-319-6637.) Failure to follow instructions or safety rules can result in serious injury or death.

■ If you do not understand any part of this manual and need assistance, see your dealer.

■ Know your controls and how to stop engine and attachment quickly in an emergency.

• Operators must be instructed in and be capable of the safe operation of the equipment, its attachments, and all controls. Do not allow anyone to operate this equipment without proper instructions.

■ Keep hands and body away from pressurized lines. Use paper or cardboard, not hands or other body parts to check for leaks. Wear safety goggles. Hydraulic fluid under pressure can easily penetrate skin and will cause serious injury or death.

■ Make sure that all operating and service personnel know that if hydraulic fluid penetrates skin, it must be surgically removed as soon as possible by a doctor familiar with this form of injury or gangrene, serious injury, or death will result. CON- TACT A PHYSICIAN IMMEDIATELY IF FLUID ENTERS SKIN OR EYES. DO NOT DELAY.

■ Never allow children or untrained persons to operate equipment.

PREPARATION

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

■ Air in hydraulic systems can cause erratic operation and allows loads or equipment components to drop unexpectedly. When connecting equipment or hoses or performing any hydraulic maintenance, purge any air in hydraulic system by operating all hydraulic functions several times. Do this before putting into service or allowing anyone to approach the equipment.

■ Make sure all hydraulic hoses, fittings, and valves are in good condition and not leaking before starting power unit or using equipment. Check and route hoses carefully to prevent damage. Hoses must not be twisted, bent sharply, kinked, frayed, pinched, or come into contact with any moving parts. Operate moveable components through full operational range to check clearances. Replace any damaged hoses immediately.

■ After connecting hoses, check that all control lever positions function as instructed in the Operator's Manual. Do not put into service until control lever and equipment movements are correct.

■ Your dealer can supply original equipment hydraulic accessories and repair parts. Substitute parts may not meet original equipment specifications and may be dangerous.

■ Set tractor hydraulic relief valve at 2500 psi (170 bars) (17,000 kPa) to prevent injury and equipment damage due to hydraulic system failure.

■ Do not connect a low-pressure hydraulic hose into a high-pressure system—it will burst the hose. Do not use a high-pressure hose in place of a lowpressure hose—it is possible to rupture the valve.

■ Always wear relatively tight and belted clothing to avoid entanglement in moving parts. Wear sturdy, rough-soled work shoes and protective equipment for eyes, hair, hands, hearing, and head.

■ Make sure attachment is properly secured, adjusted, and in good operating condition.

(Safety Rules continued on next page)

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

(Safety Rules continued from previous page)

■ Power unit must be equipped with ROPS or ROPS cab and seat belt. Keep seat belt securely fastened. Falling off power unit can result in death from being run over or crushed. Keep foldable ROPS systems in "locked up" position at all times.

■ A minimum 20% of tractor and equipment weight must be on the tractor front wheels when attachments are in transport position. Without this weight, front tractor wheels could raise up resulting in loss of steering. The weight may be attained with front wheel weights, ballast in tires, front tractor weights or front loader. Weigh the tractor and equipment. Do not estimate.

■ Make sure all safety decals are installed. Replace if damaged. (See Safety Decals section for location.)

■ Make sure circuit selector lever does not hit tractor cab, etc. throughout operating range of 3-point hitch of tractor. Bend lever, if necessary, to clear cab, but it should still be convenient to operate from the tractor seat.

OPERATION

■ Do not allow bystanders in the area when operating, attaching, removing, assembling, or servicing equipment.

■ Do not operate equipment while under the influence of alcohol or drugs.

Operate only in daylight or good artificial light.

■ Keep hands, feet, hair, and clothing away from equipment while engine is running. Stay clear of all moving parts.

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

Never allow riders on power unit or attachment.

■ Power unit must be equipped with ROPS or ROPS cab and seat belt. Keep seat belt securely fastened. Falling off power unit can result in death from being run over or crushed. Keep foldable ROPS systems in "locked up" position at all times.

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

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

Do not operate 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.

• Watch for hidden hazards on the terrain during operation.

■ Stop power unit and equipment immediately upon striking an obstruction. Turn off engine, remove key, inspect, and repair any damage before resuming operation.

Before changing positions of manual swing, tilt, or angle positions:

• Park tractor on level ground, apply parking brake, level implement boom, shut off tractor, and remove key.

• Make manual changes slowly and carefully to prevent hazardous movement of mechanisms.

• Never stand in positions where you could become entrapped during adjustment changes or if the 3-point hitch suddenly lowers.

• The moldboard may be inadvertently removed at any time while the retaining bolts are removed. Use caution during all stages of adjustment.

■ Always secure lock pins with safety pins to prevent lock pins from bumping out of the positioning holes. Failure to do so may result in accidents and/ or damage to blade.

TRANSPORTATION

■ Before transporting, pivot the unit so red reflectors face the rear.

■ Ensure all reflectors are clearly visible. Remove debris before transporting.

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

- Never allow riders on power unit or attachment.
- Do not operate or transport on steep slopes.

■ Do not operate or transport equipment while under the influence of alcohol or drugs.

■ Adjust blade offset as necessary to ensure unit does not extend more than 4 feet left of center of tractor before transporting on public roads.

(Safety Rules continued on next page)



MAINTENANCE

■ Before dismounting power unit or performing any service or maintenance, follow these steps: disengage power to equipment, lower the 3-point hitch and all raised components to the ground, operate valve levers to release any hydraulic pressure, set parking brake, stop engine, remove key, and unfasten seat belt.

■ NEVER GO UNDERNEATH EQUIPMENT. Never place any part of the body underneath equipment or between moveable 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 equipment to drop or rotate unexpectedly and cause severe injury or death.

• Service work does not require going underneath implement.

• Read Operator's Manual for service instructions or have service performed by a qualified dealer.

■ Always wear relatively tight and belted clothing to avoid entanglement in moving parts. Wear sturdy, rough-soled work shoes and protective equipment for eyes, hair, hands, hearing, and head.

■ Do not modify or alter or permit anyone else to modify or alter the equipment or any of its components in any way.

■ Make sure attachment is properly secured, adjusted, and in good operating condition.

■ Never perform service or maintenance with engine running.

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

■ 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 unit into service.

■ Make sure all safety decals are installed. Replace if damaged. (See Safety Decals section for location.)

■ Do not disconnect hydraulic lines until machine is securely blocked or placed in lowest position and system pressure is released by operating valve levers.

STORAGE

• Secure equipment parking stand(s) in park position before detaching.

■ Keep children and bystanders away from storage area.



SAFETY & INSTRUCTIONAL DECALS ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!



7 - 1002940 Yellow Reflector (Front) 8 - 57123 Red Reflector (Rear)

1 - Serial Number Plate



6 - 1003193



2 - 1002941



CRUSHING AND PINCHING HAZARD

- Be extremely careful handling various parts of the machine. They are heavy and hands, fingers, feet, and other body parts could be crushed or pinched between tractor and implement.
- Operate tractor controls from tractor seat only.
- Do not stand between tractor and implement when tractor is in gear.
- Make sure parking brake is engaged before going between tractor and implement.
- Stand clear of machine while in operation or when it is being raised or lowered.

FAILURE TO FOLLOW THESE INSTRUCTIONS COULD RESULT IN SERIOUS INJURY OR DEATH. 1002941-A

3 - 1004250

TO AVOID SERIOUS INJURY OR DEATH:

- Read Operator's Manual before operating, servicing, or repairing equipment. Follow all safety rules and instructions. (Manuals are available from dealer or call 1-800-319-6637.)
- Operate from tractor seat only.
- Lower equipment to ground, stop engine, remove key, and set brake before dismounting tractor.
- Never allow children or untrained persons to operate equipment.
- Never allow riders.
- Keep bystanders away from equipment during operation.
- Keep all shields in place and in good condition.

FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN INJURY OR DEATH. 1004250

8 Safety

MAN1170 (6/1/2016)

SAFETY & INSTRUCTIONAL DECALS ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!

4 - W19924 (RBxx.60 Only)



5 - 55121



BE CAREFUL!

Use a clean, damp cloth to clean safety decals. Avoid spraying too close to decals when using a pressure washer; high-pressure water can enter through very small scratches or under edges of decals causing them to peel or come off.

Replacement safety decals can be ordered free from your Woods dealer. To locate your nearest dealer, check the Dealer Locator at www.WoodsEquipment.com, or in the United States and Canada call 1-800-319-6637.

OPERATION

The operator is responsible for the safe operation of this equipment. Operators must be instructed in and be capable of the safe operation of the equipment, its attachments and all controls. Do not allow anyone to operate this equipment without proper instructions.

The RB 50 and 60 Series Rear Blades are designed for a wide range of applications. The Rear Blade may be used for scraping, leveling, grading and backfilling and may be angled to windrow debris to the side for removal.

Optional kits are also available for the 50 and 60 Series Rear Blades and are included in this manual. Optional Hydraulic Adjustment Kits are designed to make adjustment easier and quicker on the 50 and 60 Series Blades. Endplate Kits assist with accumulating or windrowing material, and the Skid Shoe Kit is helpful in controlling cutting height when operating on hard surfaces. For the 60 Series Blades, the Tail Wheel Kit is useful for grading and leveling work.

■ Never allow children or untrained persons to operate equipment.

■ Do not allow bystanders in the area when operating, attaching, removing, assembling, or servicing equipment.

Never allow riders on power unit or attachment.

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

■ Keep hands and body away from pressurized lines. Use paper or cardboard, not hands or other body parts to check for leaks. Wear safety goggles. Hydraulic fluid under pressure can easily penetrate skin and will cause serious injury or death.

■ Make sure that all operating and service personnel know that if hydraulic fluid penetrates skin, it must be surgically removed as soon as possible by a doctor familiar with this form of injury or gangrene, serious injury, or death will result.

CONTACT A PHYSICIAN IMMEDIATELY IF FLUID ENTERS SKIN OR EYES. DO NOT DELAY.

■ A minimum 20% of tractor and equipment weight must be on the tractor front wheels when attachments are in transport position. Without this weight, front tractor wheels could raise up resulting in loss of steering. The weight may be attained with front wheel weights, ballast in tires, front tractor weights or front loader. Weigh the tractor and equipment. Do not estimate.

A CAUTION

■ 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; and respirator or filter mask where appropriate.

■ Stop power unit and equipment immediately upon striking an obstruction. Turn off engine, set parking brake, remove key, inspect, and repair any damage before resuming operation.

PRE-OPERATION CHECK LIST

- Check that all hardware is properly installed and secured.
- ____ Do not allow riders.
- Review and follow all safety rules and safety decal instructions on page 5 through page 9.
- ____ Check that equipment is properly and securely attached to tractor.
- Make sure tractor ROPS or ROPS CAB and seat belt are in good condition. Keep seat belt securely fastened during operation.
- ____ Check that all safety decals are installed and in good condition. Replace if needed.

ATTACH REAR BLADE TO TRACTOR

This Rear blade should be mounted on tractors within the engine horsepower rating specified on page 4. Do not exceed maximum engine horsepower rating for a given model.

RB 50 and 60 Series blades are shipped completely assembled and may be installed on tractors equipped with a Category 1 or Category 2 3-point hitch.

The tractor draw bar must be removed or installed in its shortest position to allow the blade to rotate 180°.

NOTICE

The 3/4" bolt and sleeve in the lower hole provide the attachment point for a Cat 1 quick hitch. do not remove this bolt and sleeve when operating the Rear Blade.

10 Operation

RB 50 & 60 Series - Category 1

(See Figure 1)

- 1. Place tractor 3-point lower lift arms between inner mounting lugs.
- 2. Use Cat 1 hitch pins (1) and secure with klik pins (2).
- **3.** Attach tractor's top link to the front hole of the Rear blade frame (3).
- **4.** Secure with the heavy-duty top link pin and retaining pin supplied with the tractor top link.



Figure 1. RB 50 & 60 Series Cat 1 & 2 Connection

RB 50 & 60 Series - Category 2

(See Figure 1)

- **1.** Place tractor 3-point lower lift arms between outer mounting lugs.
- **2.** Use Cat 2 busings (4) (included) over hitch pins (1) and secure with klik pins (2).
- **3.** Attach tractor's top link to the rear hole of the Rear Blade frame (5).
- **4.** Secure with the heavy-duty top link pin and retaining pin supplied with the tractor top link.

RB 50 & 60 Series - Quick Hitch (Optional)

(See Figure 2)

An optional Quick Hitch Bushing Kit is available for Category 1 and Category 2 tractors.

NOTE: The RB 50 & 60 Series Rear Blades will attach to a Cat 1 or Cat 2 Quick Hitch. Use Quick

Hitch Bushing Kit 1043173 when using a quick hitch coupler.

- Remove lower hitch pins (1), and Cat 2 bushings (3) from Rear Blade frame.
- Place Quick Hitch Bushings (4) between the inner hitch lugs (Cat 1), or between outer hitch lugs (Cat 2), over hitch pins and secure with klik pins (2).
- **3.** Align quick hitch with lower bushings and upper sleeve (5) in the lower hole of the Rear Blade Frame.



Figure 2. RB 50 & 60 Series Quick Hitch Connection

NOTICE

Do not use Quick Hitch with Tail Wheel kit. See Page 18 for floating top link kit.

PARKING STAND

NOTICE

The parking stand size and location varies between the 50 Series and the 60 Series, but the function and operation are the same.

Operating Position

(See Figure 3)

- **1.** With Rear Blade attached and slightly raised, remove parking stand pin and clip (1).
- **2.** Rotate parking stand (2) upwards and align with upper hole on Rear Blade Frame (3).

Operation **11**

3. Secure parking stand with pin and clip.



Figure 3. Parking Stand in Operation Position

Storage Position

(See Figure 3)

- **1.** With Rear Blade attached and slightly raised, remove parking stand pin and clip (1).
- **2.** Rotate parking stand (2) downward and align with lower hole on Rear Blade Frame (4).
- 3. Secure parking stand with pin and clip.
- **4.** Lower Rear blade so cutting edge and Parking Stand are flat on the ground, then disconnect Rear blade from tractor.

ADJUSTMENTS

A WARNING

■ Set tractor hydraulic relief valve at 2500 psi (170 bars) (17,000 kPa) to prevent injury and equipment damage due to hydraulic system failure.

Hydraulic Angle and Offset adjustment kits include a double acting relief valve to provide protection against over pressurizing the Rear Blade's hydraulic system upon striking an obstruction. Keep valves installed and in good working order at all times.

A CAUTION

Before changing positions of manual swing, tilt, or angle positions:

• Park tractor on level ground, apply parking brake, level implement boom, shut off tractor, and remove key.

• Make manual changes slowly and carefully to prevent hazardous movement of mechanisms.

- Never stand in positions where you could become entrapped during adjustment changes or if the 3-point hitch suddenly lowers.
- The moldboard may be inadvertently removed at any time while the retaining bolts are removed. Use caution during all stages of adjustment.

■ Always secure lock pins with safety pins to prevent lock pins from bumping out of the positioning holes. Failure to do so may result in accidents and/or damage to blade.

Angle and Reverse Adjustment Mechanical RB 50 & 60 Series

(See Figure 4)

The RB 50 and 60 Series Rear Blades may be angled 15, 30 and 45 degrees, right or left from center, in both forward grading and backfilling directions. For most tractors, the blade may be rotated 360 degrees without unhooking from the tractor.

- 1. Raise the blade a couple inches off the ground by operating the lift control lever of the tractor 3-point hitch.
- **2.** Remove lock pin (1) and safety clip (2).
- **3.** Set Blade to desired forward or backfill position and replace lock pin and safety clip.



Figure 4. RB 50 Series Angle Adjustment

NOTE: Blade tilt may need to be slightly adjusted in order to rotate 360 degrees. See Tilt Adjustment.

Angle Adjustment - Hydraulic RB50 & 60 Series (Optional)

(See Figure 5)

The RB50 & 60 Series Rear Blades may be angled up to 45 degrees, or to any position in between, right or left from center, by hydraulic remote control from the tractor seat. To prevent damage to the Blade and hydraulic cylinder, make sure lock pin (1) is removed.

- 1. Raise the Blade a couple inches off the ground by operating the lift control lever of the tractor 3-point hitch.
- **2.** Actuate the control valve the angle cylinder (2) is connected to until the desired adjustment is reached.
- **3.** On tractors with two circuit selector valves, select angling circuit and actuate the tractor control valve connected to the selector valve.

NOTE: Do not operate the selector valve under load.



Figure 5. RB 50 Series Hydraulic Angle Adjustment

Reverse Adjustment - Hydraulic RB 50 & 60 Series (Optional)

(See Figure 5)

The RB 50 & 60 Series Rear Blades may be reversed to backfilling allowing adjustment up to 45 degrees, or

to any position in between, right or left from center, by hydraulic remote control from the tractor seat. To prevent damage to the Blade and hydraulic cylinder make sure lock pin (1) is removed.

- 1. Raise the Blade a couple inches off the ground by operating the lift control lever of the tractor 3-point hitch.
- Detach the angle cylinder from the hydraulic angle arm (3) by removing the lock pin and clip.
- **3.** Rotate the Blade 180 degrees then lower blade to ground by operating the lift control lever of the tractor 3-point hitch.
- **4.** Remove lock nut (4) and retaining ring (5) then rotate hydraulic angle arm 180 degrees.
- 5. Reinstall retaining ring, lock nut and angle cylinder.
- **6.** Adjustment in the backfilling position follows the same procedure as forward angle adjustment.

NOTE: Blade tilt may need to be slightly adjusted in order to rotate 180 degrees. See Tilt Adjustment.

Offset Adjustment - Mechanical RB 50 Series

(See Figure 6)

■ The moldboard may be inadvertently removed at any time while the retaining bolts are removed. Use caution during all stages of adjustment.

The RB 50 Series Rear Blades may be offset 6", 12" or 18" right or left from center. Adjustment can be made by unbolting the moldboard from the frame, sliding the moldboard to a new location and bolting the moldboard back to the frame.

- 1. Raise the Blade two inches or less off the ground by operating the lift control lever of the tractor 3-point hitch.
- Remove top two bolts (1) and nuts (2) securing moldboard (3) to frame (4). Loosen, but do not completely remove bottom two nuts. Bolts may drop into channel if nuts are completely removed.
- **3.** Carefully slide moldboard to desired location, align bolt holes, and bolt moldboard in place.



Figure 6. RB 50 Series Offset Moldboard

Offset Adjustment - Mechanical RB 60 Series

(See Figure 7)

The RB 60 Series Rear Blades may be offset up to 20", or to any position in between, right or left from center, using a mechanical ratchet jack.

- 1. Raise the Blade a couple inches off the ground by operating the lift control lever of the tractor 3-point hitch.
- **2.** Rotate the ratchet jack (1) clockwise or counterclockwise to achieve desired offset.
- 3. Lock ratchet jack in place by securing jam nut.



Figure 7. RB 60 Series Offset Adjustment

Offset Adjustment - Hydraulic RB 60 Series

(See Figure 7)

The RB 60 Series Rear Blades may be offset up to 20", or to any position in between, right or left from center, by hydraulic remote control from the tractor seat.

- 1. Raise the Blade a couple inches off the ground by operating the lift control lever of the tractor 3-point hitch.
- **2.** Actuate the control valve the offset cylinder (2) is connected to until the desired adjustment is reached.
- **3.** On tractors with two circuit selector valves, select offset circuit and actuate the tractor control valve connected to the selector valve.

NOTE: Do not operate the selector valve under load.

Tilt Adjustment - Mechanical RB 50 Series (See Figure 8)

The RB 50 Series Rear Blades may be tilted up to 23 degrees, in five positions, up or down from level.

- 1. Raise the Blade off the ground by operating the lift control lever of the tractor 3-point hitch.
- 2. Remove lock pin (1) and safety clip (2).
- **3.** Set blade to desired tilt position (3) and replace lock pin and safety clip.

14 Operation

MAN1170 (6/1/2016)



Figure 8. RB 50 Series Tilt Adjustment

Tilt Adjustment - Mechanical RB 60 Series

(See Figure 9)

The RB 60 Series Rear Blades may be tilted up to 23 degrees, or to any position in between, up or down from level, using a mechanical ratchet jack.

- **1.** Raise the Blade off the ground by operating the lift control lever of the tractor 3-point hitch.
- 2. Rotate the ratchet jack (1) clockwise or counterclockwise to achieve desired tilt.
- 3. Lock ratchet in place by securing jam nut.



Figure 9. RB 60 Series Tilt Adjustment

Tilt Adjustment - Hydraulic RB 60 Series (Optional)

(See Figure 9)

The RB 60 Series Rear Blades may be tilted up to 23 degrees, or to any position in between, up or down from level, by hydraulic remote control from the tractor seat.

- **1.** Raise the Blade off the ground by operating the lift control lever of the tractor 3-point hitch.
- **2.** Actuate the control valve the tilt cylinder (2) is connected to until the desired adjustment is reached.

NOTE: In some cases it may not be possible to fully tilt and angle and still be able to raise the blade high enough to clear the ground. In this case, use less tilt.

NOTE: It is possible for the blade to contact other components if the blade is tilted when angled. Operate blade slowly when angling blade.

OPTIONAL EQUIPMENT

RB 50 SERIES HYDRAULIC ANGLE KIT 1043128

(See Figure 10)

- With blade on the ground, remove lock pin and safety clip (1), lock nut (2), retaining ring (3) and washer (4). Discard washer.
- **2.** Install hydraulic angle arm (5) in place of washer. Reinstall retaining ring and lock nut.
- **3.** Install hydraulic angle cylinder (6) with sleeve (7), and new pin and safety clip (8).
- 4. Install 90 degree elbows (9) to cylinder.

- **5.** Attach relief valve (10) to holes in Rear blade frame (11) with provided cap screws (12) and lock nuts (13).
- **6.** Attach hoses (14 & 15) to relief valve then elbows as shown.
- **7.** Attach fittings (16) to relief valve, then hoses (17) to fittings.
- 8. Install quick disconnect fittings (18) to hoses.
- **9.** Secure hoses to A-frame using supplied clamp (19), cap screw (20) and lock nut (13).



Figure 10. RB 50 Series Hydraulic Angle Kit Installation

MAN1170 (6/1/2016)

RB 50 & 60 SERIES ENDPLATE KIT 1043140, 1043135

(See Figure 11)

- 1. Install endplate (1) to moldboard (2) using supplied carriage bolts (3) and lock nuts (4)
- 2. Repeat installation for other side. (Not shown).



Figure 11. RB 50 & 60 Series Endplate Installation

<u>RB 50 & 60 SERIES SKID SHOE KIT 18300</u> <u>& RB72.50 SKID SHOE KIT 601730</u>

(See Figure 12)

- 1. Remove plow bolts and lock nuts from each end of cutting edge.
- 2. Attach skid shoe brackets (1) with supplied plow bolt (2), washer (3), and lock nut (4).
- Assemble skid shoe (5) to bracket using washers
 (6) and spacers (7) as needed to achieve desired height. Retain with klik pin (8).

NOTE: One washer must be installed between the bracket and the spacers. Make sure the skid shoe rotates freely to prevent premature skid shoe wear.



Figure 12. RB 50 & 60 Series Skid Shoe Installation

RB 60 SERIES TAIL WHEEL KIT 1043145

Assemble Tail Wheel

(See Figure 13)

- Floating links must be used with tail wheel to avoid equipment damage.
- Tail wheel kit will not function properly when used with Quick Hitch.
- 1. Install tail wheel mount (1) to rear blade boom (2) using supplied carriage bolts (3) and lock nuts (4) as shown.
- **2.** Install tail wheel boom (5) on tail wheel mount using supplied pin (6) and klik pins (7).
- **3.** Attach wheel and yoke assembly (8) to boom and secure with washer (9) and pin (10).
- **4.** Install ratchet jack (11) between tail wheel mount and boom with supplied pins.

Optional Equipment **17**



Figure 13. RB 60 Series Tail Wheel Installation

Assemble Floating Link

(See Figure 14)

- Secure rear holes of top link channel (1) to A-frame (2) using supplied pin (3), washers (4), and cotter pins (5).
- **2.** Install sleeve (6) in front holes with pin (7) and klik pin (8).

Adjust Tail Wheel Assembly

Set blade cutting edge 1/2" above the ground with the tractor 3-point hitch. Adjust tail wheel until tire is on the ground and the top link pin is centered in the floating link slot. Fine tune the grading height by raising or lowering the 3-point hitch.



Figure 14. RB 60 Series Floating Link Installation

18 Optional Equipment

MAN1170 (6/1/2016)

ASSEMBLY INSTRUCTIONS

DEALER SET-UP INSTRUCTIONS

Assembly of this Rear Blade is the responsibility of the WOODS dealer. The 50 Series Rear Blades are shipped fully assembled. The 60 Series Rear Blades are shipped partially assembled and will need the mechanical or hydraulic adjustment kits assembled.

All Rear Blades should be delivered to the owner completely assembled, lubricated, and adjusted for normal conditions.

Complete the Dealer Checklist on Page 25 when setup is complete and the Rear Blade is delivered to the Owner.



■ Before dismounting power unit or performing any service or maintenance, follow these steps: disengage power to equipment, lower the 3-point hitch and all raised components to the ground, operate valve levers to release any hydraulic pressure, set parking brake, stop engine, remove key, and unfasten seat belt.

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

■ Keep hands and body away from pressurized lines. Use paper or cardboard, not hands or other body parts to check for leaks. Wear safety goggles. Hydraulic fluid under pressure can easily penetrate skin and will cause serious injury or death.

■ Make sure that all operating and service personnel know that if hydraulic fluid penetrates skin, it must be surgically removed as soon as possible by a doctor familiar with this form of injury or gangrene, serious injury, or death will result.

CONTACT A PHYSICIAN IMMEDIATELY IF FLUID ENTERS SKIN OR EYES. DO NOT DELAY.

■ NEVER GO UNDERNEATH EQUIPMENT. Never place any part of the body underneath equipment or between moveable 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 equipment to drop or rotate unexpectedly and cause severe injury or death.

• Service work does not require going underneath implement.

• Read Operator's Manual for service instructions or have service performed by a qualified dealer.

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

■ 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 unit into service.

RB 60 SERIES MECHANICAL ASSEMBLY

Angle Adjustment

RB 60 Series Rear Blades are shipped with lock pin installed for mechanical angle adjustment. No assembly is required.

Offset Adjustment

(See Figure 15)

- 1. Remove shipping bracket (1) and hardware between hitch (2) and boom (3).
- **2.** Install ratchet jack (4) in place of shipping bracket using supplied pins.

3. Adjust ratchet jack if necessary so that offset adjustment is centered.

Tilt Adjustment

(See Figure 15)

- **1.** Remove shipping bracket (5) and hardware between moldboard (6) and pivot (7).
- **2.** Install ratchet jack (8) in place of shipping bracket using supplied pins.
- **3.** Adjust ratchet jack if necessary so that tilt adjustment is level.

Assembly 20



Figure 15. RB 60 Series Mechanical Adjustment Assembly

RB 60 SERIES HYDRAULIC ASSEMBLY

Angle Adjustment

(See Figure 16)

- 1. Remove lock nut (1), retaining ring (2) and washer (3). Discard washer.
- 2. Install hydraulic angle arm (4) in place of washer. Reinstall retaining ring and lock nut.
- 3. Install hydraulic angle cylinder (5) with sleeve (6), and lock pin and safety clip (7) from the mechanical angle adjustment.
- 4. Install 90° elbows (8) to cylinder.

- 5. Attach relief valve (9) to bracket on boom (10) with short cap screws (11) and lock nuts (12).
- 6. Attach hoses (13 & 14) to relief valve, route through hose loop, then attach elbows as shown.
- 7. Attach fittings (15) to relief valve, then hoses (16) to fittings.
- 8. Route hoses through loop on A-Frame and install quick disconnect fittings (17) to hoses.

NOTE: Replace short cap screws with long cap screws if using more than one relief valve. Shims to be used as required based on cap screw length.



Figure 16. RB 60 Series Hydraulic Angle Kit Installation

Offset Adjustment

(See Figure 17)

- 1. Remove shipping bracket (1) and hardware between hitch (2) and boom (3).
- 2. Install hydraulic offset cylinder (4) with supplied pins.
- **3.** Install 90° elbows (5) to cylinder.
- 4. Attach relief valve (6) to bracket on boom (7) with short cap screws (8) and lock nuts (9).
- 5. Attach hoses (10 & 11) to relief valve. Route hoses through hose loop, then attach to elbows as shown.

- 6. Attach fittings (12) to relief valve, then hoses (13) to fittings.
- 7. Route hoses through loop on A-Frame and install quick disconnect fittings (14) to hoses.

NOTE: Replace short cap screws with long cap screws if using more than one relief valve. Shims to be used as required based on cap screw length.

Assembly **22**



Figure 17. RB 60 Series Hydraulic Offset Kit Installation

Tilt Adjustment (See Figure 18)

- **1.** Remove shipping bracket (1) and hardware between moldboard (2) and pivot (3).
- 2. Install hydraulic tilt cylinder (4) with supplied pins.
- **3.** Install 90° elbows (5) to cylinder.

- **4.** Attach hoses (6) to elbows and route hoses through hose loops.
- 5. Secure hoses with clamps (7), cap screws (8), and lock nuts (9) to relief valve bracket, or relief valve if equipped.
- 6. Install quick disconnect fittings (10) to hoses.



Figure 18. RB 60 Series Hydraulic Tilt Adjustment Assembly

23 Assembly

MAN1170 (6/1/2016)

OWNER SERVICE

WARNING

■ Keep hands and body away from pressurized lines. Use paper or cardboard, not hands or other body parts to check for leaks. Wear safety goggles. Hydraulic fluid under pressure can easily penetrate skin and will cause serious injury or death.

■ Make sure that all operating and service personnel know that if hydraulic fluid penetrates skin, it must be surgically removed as soon as possible by a doctor familiar with this form of injury or gangrene, serious injury, or death will result.

CONTACT A PHYSICIAN IMMEDIATELY IF FLUID ENTERS SKIN OR EYES. DO NOT DELAY.

■ NEVER GO UNDERNEATH EQUIPMENT. Never place any part of the body underneath equipment or between moveable 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 equipment to drop or rotate unexpectedly and cause severe injury or death.

- Service work does not require going underneath implement.
- Read Operator's Manual for service instructions or have service performed by a qualified dealer.

■ Never perform service or maintenance with engine running.

■ Before dismounting power unit or performing any service or maintenance, follow these steps: disengage power to equipment, lower the 3-point hitch and all raised components to the ground, operate valve levers to release any hydraulic pressure, set parking brake, stop engine, remove key, and unfasten seat belt.

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

■ 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; and respirator or filter mask where appropriate.

BLADE CUTTING EDGE REPLACEMENT

To reverse the cutting edge:

- 1. Remove the 5/8" plow bolts.
- **2.** Remove the cutting edge from the moldboard and reinstall with the sharp edge down.
- 3. Replace cutting edge when both edges are worn.

LUBRICATION

Weekly

Oil the main pivot with SAE 30 oil.

8 Hours

Grease optional skid shoes.

BOLTS

- 1. Check bolts periodically to be sure they are tight.
- 2. Replace bolts as needed.

NOTE: Replacement bolts must have the same strength markings on the heads. Refer to bolt torque on Page 40.

CLEANING

After Each Use

- Remove large debris such as clumps of dirt, grass, crop residue, etc. from machine.
- Inspect machine and replace worn or damaged parts.
- Replace any safety decals that are missing or not readable.

Periodically or Before Extended Storage

- Clean large debris such as clumps of dirt, grass, crop residue, etc. from machine.
- Remove the remainder using a low-pressure water spray.

1. Be careful when spraying near scratched or torn safety decals or near edges of decals as water spray can peel decal off surface.

2. Be careful when spraying near chipped or scratched paint as water spray can lift paint.

3. If a pressure washer is used, follow the advice of the pressure washer manufacturer.

- Inspect machine and replace worn or damaged parts.
- Sand down scratches and the edges of areas of missing paint and coat with Woods spray paint of matching color (Purchase from your Woods dealer).
- Replace any safety decals that are missing or not readable (supplied free by your Woods dealer).
 See Safety Decals section for location drawing.

Owner Service 24

DEALER CHECK LISTS

PRE-DELIVERY CHECK LIST

Inspect the equipment thoroughly after assembly to be certain it is set up properly before delivering it to the customer. The following check list is a reminder of points to inspect. Check off each item if it is found satisfactory or after proper adjustment is made.

- ____ Check that all safety decals are installed and in good condition. Replace if damaged.
- ____ Check all bolts to be sure they are tight.
- ____ Check that all cotter pins and safety pins are properly installed.
- ____ Check and grease all lubrication points as identified in the "Owner Service, Lubrication" section.

DELIVERY CHECK LIST

- Show customer the safe and proper procedures to be used when mounting, dismounting and storing equipment.
- For mounted units, add wheel weights, ballast in front tires, and/or front tractor weight to enhance front end stability. A minimum 20% of tractor and equipment gross weight must be on front tractor

wheels. When adding weight to attain 20% of tractor and equipment weight on front tractor wheels, you must not exceed the ROPS weight certification. Weigh the tractor and equipment. Do not estimate!

- ____ Show customer how to make adjustments.
- ____ Instruct customer how to lubricate and explain importance of lubrication.
- Present Operator's Manual and request that customer and all operators read it before operating equipment. Point out the manual safety rules, explain their meanings, and emphasize the increased safety hazards that exist when safety rules are not followed.
- Point out the safety decals. Explain their meaning and the need to keep them in place and in good condition. Emphasize the increased safety hazards when instructions are not followed.
- Explain to customer the potential crushing hazards of going underneath raised equipment. Instruct customer that service work does not require going underneath unit and never to do so.



NOTES

MAN1170 (6/1/2016)

Dealer Check Lists 26



PARTS INDEX

REAR BLADES

RB72.50, RB84.50, RB96.50 RB84.60, RB96.60

RB72.50, RB84.50, RB96.50 ASSEMBLY28 - 29
RB84.60, RB96.60 ASSEMBLY
HYDRAULIC ANGLE KIT 1043128 FOR 50 SERIES
HYDRAULIC ANGLE KIT 1043125 FOR 60 SERIES
HYDRAULIC OFFSET KIT 1043126 FOR 60 SERIES
HYDRAULIC TILT KIT 1043127 FOR 60 SERIES
SELECTOR VALVE KIT 1043134
END PLATE KITS 1043135 & 1043140
SKID SHOE KIT 18300
TAIL WHEEL KIT 1043145



MAN1170 (6/1/2016)

RB72.50, RB84.50, RB96.50 REAR BLADES

REF		RB72.50	RB84.50	RB96.50	QTY	DESCRIPTION
1		1042710	1042710	1042710	1	Hitch frame
2		1042711	1042711	1042711	1	Pivot frame
3		1042712	1042712	1042712	1	Offset frame
4		104271372	104271384	104271396	1	Moldboard
5		25258	25263	25270	1	Cutting edge
6		26920 (6)	26920 (8)	26920 (8)		5/8 NC x 1-3/4 Plow bolt
7	*	6239 (6)	6239 (8)	6239 (8)		5/8 NC Hex lock nut
8		1042716	1042716	1042716	1	Washer, non-hydraulic
9		1042715	1042715	1042715	1	Pivot retainer
10		34279	34279	34279	1	1 NC Hex lock nut
11		55318	55318	55318	2	3/4 Hitch pin
12	*	12558	12558	12558	1	3/4 NC x 4-1/2 HHCS, GR5
13	*	2864	2864	2864	1	3/4 SAE Flat washer
14		1002018	1002018	1002018	1	Cat 1, 2 Quick hitch sleeve
15	*	302207	302207	302207	1	3/4 NC Flanged lock nut
16		HBL233	HBL233	HBL233	2	7/8 Hitch pin
17	*	43627	43627	43627	4	Klik pin
18		56598	56598	56598	2	Cat 2 sleeve
19		1042714	1042714	1042714	1	Parking stand
20	*	7747	7747	7747	1	3/8 NC x 3 HHCS, GR5
21	*	14350	14350	14350	1	3/8 NC Flanged lock nut
22	*	33000	33000	33000	1	3/8 x 2-1/4 Lynch pin
23	*	902	902	902	3	5/8 NC x 2 HHCS, GR5
24		1042718	1042718	1042718	1	Tilt plate
25		1042720	1042720	1042720	1	Tilt shim
26		1042719	1042719	1042719	1	Tilt retainer
27	*	19025	19025	19025	7	5/8 NC Flanged lock nut
28	*	7832	7832	7832	2	5/8 NC x 1-1/2 HHCS, GR5
29	*	5607	5607	5607	2	5/8 NC x 1-1/2 Carriage bolt, GR5
30		1043169	1043169	1043169	1	Complete safety decal set (Not Shown)
31		1043170	1043170	1043170	1	Complete model decal set (Not shown)

HHCS Hex Head Cap Screw



30 Parts

MAN1170 (6/1/2016)

RB84.60, RB96.60 REAR BLADES

REF		RB84.60	RB96.60	QTY	DESCRIPTION
1		1042721	1042721	1	Hitch frame
2		1042722	1042722	1	Boom frame
3		1042723	1042723	1	Pivot frame
4		104272484	104272496	1	Moldboard
5		25263	25270	1	Cutting edge
6		26920	26920	8	5/8 NC x 1-3/4 Plow bolt
7	*	6239	6239	8	5/8 NC Hex lock nut
8		1042716	1042716	1	Washer, non-hydraulic
9		1042715	1042715	1	Pivot retainer
10		34279	34279	1	1 NC Hex lock nut
11		1023224	1023224	2	1" Hitch pin
12	*	18270	18270	1	3/16 Safety clip
13	*	12558	12558	1	3/4 NC x 4-1/2 HHCS, GR5
14	*	2864	2864	1	3/4 SAE Flat washer
15		1002018	1002018	1	Cat 1, 2 Quick hitch sleeve
16	*	302207	302207	1	3/4 NC Flanged lock nut
17		HBL233	HBL233	2	7/8 Hitch pin
18	*	43627	43627	4	Klik pin
19		56598	56598	2	Cat 2 sleeve
20		1043157	1043157	1	Parking stand
21	*	1637	1637	1	1/2 NC x 3-1/2 HHCS, GR5
22	*	11900	11900	1	1/2 NC Flanged lock nut
23		1026267	1026267	1	1/2 x 3 Pin
24		1043060	1043060	1	Pivot pin
25	*	7164	7164	1	5/16 NC x 2-1/4 HHCS, GR5
26	*	14139	14139	1	5/16 NC Flanged lock nut
27	*	12274	12274	4	5/8 NC x 2-1/4 HHCS, GR5
28		1043158	1043158	1	Tilt retainer
29		1043159	1043159	1	Tilt shim
30	*	19025	19025	4	5/8 NC Flanged lock nut
31		20020705	20020705	2	Ratchet jack (Optional)
32		1043125	1043125	1	Hydraulic angle kit (Optional) (Not Shown)
33		1043126	1043126	1	Hydraulic offset kit (Optional) (Not Shown)
34		1043127	1043127	1	Hydraulic tilt kit (Optional) (Not Shown)
35		1043169	1043169	1	Complete safety decal set (Not Shown)
36		1043171	1043171	1	Complete model decal set (Not Shown)

HHCS Hex Head Cap Screw

RB72.50, RB84.50, RB96.50 HYDRAULIC ANGLE KIT 1043128 (OPTIONAL)



REF	PART	QTY	DESCRIPTION	REF	PART	QTY	DESCRIPTION
1	1043130	1	3 x 10 Hydraulic cylinder	10	61	2	3/4 SAEM x3/4 JICM Ada
2	1020204	2	1/2 NPTM x 3/4 JICM Elbow	REF	PART	οτγ	DESCRIPTION
3	1042717	1	Hydraulic angle plate			<u> </u>	
4	27652	1		11	37964 *	2	5/16 NC x 3 HHCS, GR5
4	37055	I	1.0 x 1.50 x .75 Sleeve	12	14139 *	3	5/16 NC Flanged lock nut
5	1037844	1	1" Hitch pin	12	56	1	Hoso clamp
6	18270 *	1	3/16 Safety clin	15	50	1	nose clamp
0	10210			14	14562 *	1	5/16 NC x 1 HHCS, GR5
7	360160	1	Hose, 30" x 3/4 SAEM x 3/4 JICF	15	100/282	2	Hose 54" x 1/2 NPT x 3/4
8	360159	1	Hose, 21" x 3/4 SAEM x 3/4 JICE	15	1004202	2	11036, 54 × 1/2 111 1 × 5/4
				16	66511	2	Quick disconnect coupler,
9	1004260	1	1600 PSI Relief valve				

32 Parts

10	61	2	3/4 SAEM x3/4 JICM Adapter
REF	PART	QTY	DESCRIPTION
11	37964 *	2	5/16 NC x 3 HHCS, GR5
12	14139 *	3	5/16 NC Flanged lock nut
13	56	1	Hose clamp
14	14562 *	1	5/16 NC x 1 HHCS, GR5
15	1004282	2	Hose, 54" x 1/2 NPT x 3/4 JICF
16	66511	2	Quick disconnect coupler, male

HHCS Hex Head Cap Screw

* Standard Hardware, Obtain Locally

RB84.60, RB96.60 HYDRAULIC ANGLE KIT 1043125 (OPTIONAL)



REF	PART	QTY	DESCRIPTION
1	1043131	1	3 x 12 Hydraulic cylinder
2	1020204	2	1/2 NPTM x 3/4 JICM Elbow
3	1043161	1	Hydraulic angle plate
4	37653	1	1.0 x 1.50 x .75 Sleeve
5	360174	1	Hose, 36" x 3/4 SAEM x 3/4 JICF
6	360178	1	Hose, 50" x 3/4 SAEM x 3/4 JICF
7	1004260	1	1600 PSI Relief valve
8	37964 *	2	5/16 NC x 3 HHCS, GR5
9	58423 *	2	5/16 NC x 5 HHCS, GR5
10	14139 *	2	5/16 NC Flanged lock nut

REF	PART	QTY	DESCRIPTION
11	1043160	1	Relief valve shim
12	61	2	3/4 SAEM x 3/4 JICM Adapter
13	1004282	2	Hose, 54" x 1/2 NPT x 3/4 JICF
14	66511	2	Quick disconnect coupler, male

HHCS Hex Head Cap Screw

RB84.60, RB96.60 HYDRAULIC OFFSET KIT 1043126 (OPTIONAL)



REF	PART	QTY	DESCRIPTION
1	1043129	1	3 x 8 ASE Hydraulic cylinder
2	1020204	2	1/2 NPTM x 3/4 JICM Elbow
3	360174	1	Hose, 36" x 3/4 SAEM x 3/4 JICF
4	360178	1	Hose, 50" x 3/4 SAEM x 3/4 JICF
5	1004260	1	1600 PSI Relief valve
6	1043160	1	Relief valve shim
7	37964 *	2	5/16 NC x 3 HHCS, GR5
8	58423 *	2	5/16 NC x 5HHCS, GR5
9	14139 *	2	5/16 NC Flanged lock nut

REF	PART	QTY	DESCRIPTION
10	61	2	3/4 SAEM x 3/4 JICM Adapter
11	1004282	2	Hose, 54" x 1/2 NPT x 3/4 JICF
12	66511	2	Quick disconnect coupler, male

HHCS Hex Head Cap Screw

RB84.60, RB96.60 HYDRAULIC TILT KIT 1043127 (OPTIONAL)



HHCS Hex Head Cap Screw

RB84.60, RB96.60 SELECTOR VALVE KIT 1043134 (OPTIONAL)



1	1043156	1	Selector valve bracket
2	1004261	1	Selector valve
3	316017	4	1-1/6 SAEM x 3/4 JICM adapter
4	1004281	4	Hose, 26" x 3/4 JICF x 3/4 JICF
5	37501	2	1/16 JICM x 3/4 JICM Elbow
6	976 *	2	3/8 NC x 1-1/2 HHCS, GR5
7	7747 *	2	3/8 NC x 3 HHCS, GR5
8	14350 *	2	3/8 NC Flanged lock nut

HHCS Hex Head Cap Screw

END PLATE KITS 1043135, 1043140 (OPTIONAL)



А	1043140	1043135	1	End plate kit
1	1043164	1043162	1	Right end plate
2	1043165	1043163	1	Left end plate (Not shown)
3	5607	5607 *	4	5/8 NC x 1-1/2 Carriage bolt, GR5
4	6239	6239 *	4	5/8 NC Hex lock nut

* Standard Hardware, Obtain Locally

SKID SHOE KIT 18300 & 601730 (OPTIONAL)

			REF	RB84.50 RB96.50 RBXX.60	RB72.50	QTY	DESCRIPTION
			А	18300	601730	1	Skid shoe kit
	$\langle / /$		1	27586	27586	2	Skid shoe
8 6		H	2	1005328	602148	1	Right skid shoe bracket (Not shown)
NT - E		CD8608	3	1005329	602149	1	Left skid shoe bracket
7 4	3	6	4	52854	52854	6	1.28 x 1.66 x .75 Sleeve
6			5	27542	27542 *	2	7/16 Klik pin
В	Thi	5	6	7163	7163	8	1-1/4 Flat washer
3		Pal	7	26169	26169	2	5/8 NC x 2-1/2 Plow bolt
1 30			8	6239	6239 *	2	5/8 NC Hex lock nut
3		Li.	9	692	692 *	2	5/8 Standard flat washer
9 /		4	10	12296	12296 *	2	1/4-28 Straight grease fitting
ŏ	1-				*	Stan	dard Hardware, Obtain Locally

TAILWHEEL KIT 1043145 (OPTIONAL)



38 Parts

MAN1170 (6/1/2016)

TAILWHEEL KIT 1043145 (OPTIONAL)

REF	PART	QTY	DESCRIPTION	REF	PART	QTY	DESCRIPTION
А	1043145	1	Tailwheel kit	16	1030520	1	Tail wheel assembly
1	1043167	1	Tailwheel mount	16A	1030521	1	Wheel & hub assembly
2	1043168	1	Tailwheel boom	16B	1030522	1	Hub assembly
3	HBL233	1	7/8 Hitch pin	17	1030524	2	Bushing
4	43627 *	3	Klik pin	18	300300 *	4	1/2 NC x 1 HHCS, GR5
5	20020705	1	Ratchet jack	19	78178 *	4	1/2 Standard flat washer
6	2855 *	4	5/8 NC x 2 Carriage bolt, GR5	20	1028815	1	Yoke, tailwheel
7	19025 *	4	%/8 NC Flanged lock nut	21	1030523	1	M24 x 2.0P Axle bolt
8	1043166	1	Float channel	22	1032105	1	M24 x 2.0P Slotted nut
9	1863 *	2	1" Standard flat washer				
10	8345	1	1 x 4 Pin		HHCS	Hex	Head Cap Screw
11	1285 *	2	1/4 x 1-1/2 Cotter pin		*	Stan	dard Hardware, Obtain Locally
12	43645	1	Top link pin				
13	1033970	1	.78 x 1.0 x 4 Sleeve				
14	7163	1	1-1/4 Standard flat washer				
15	13853	1	3/8 x 1-1/4 Spirol pin				

BOLT TORQUE CHART

Always tighten hardware to these values unless a different torque value or tightening procedure is listed for a specific application.

Fasteners must always be replaced with the same grade as specified in the manual parts list.

Always use the proper tool for tightening hardware: SAE for SAE hardware and Metric for metric hardware.

Make sure fastener threads are clean and you start thread engagement properly.

All torque values are given to specifications used on hardware defined by SAE J1701 MAR 99 & J1701M JUL 96.





SAE Grade 2 (No Dashes)

SAE Bolt Head Identification

(3 Radial Dashes)



SAE Grade 8 (6 Radial Dashes)

	Wrench	MARKING ON HEAD								
Diameter		SAE 2		SA	\E 5	SAE 8				
(Inches)	Size	lbs-ft	N-m	lbs-ft	N-m	lbs-ft	N-m			
1/4"	7/16"	6	8	10	13	14	18			
5/16"	1/2"	12	17	19	26	27	37			
3/8"	9/16"	23	31	35	47	49	67			
7/16"	5/8"	36	48	55	75	78	106			
1/2"	3/4"	55	75	85	115	120	163			
9/16"	13/16"	78	106	121	164	171	232			
5/8"	15/16"	110	149	170	230	240	325			
3/4"	1-1/8"	192	261	297	403	420	569			
7/8"	1-5/16"	306	416	474	642	669	907			
1"	1-1/2"	467	634	722	979	1020	1383			



METRIC SERIES TORQUE CHART



Metric Bolt Head Identification



Metric Grade 10.9

_	Wrench	Coarse Thread								
A			Marking	on Head		Marking on Head				A
Diameter & Thread Pitch		Metric 8.8 Metric		10.9 Metric 8		c 8.8 Metric 10.9		c 10.9	Diameter &	
(Millimeters)	Size	N-m	lbs-ft	N-m	lbs-ft	N-m	lbs-ft	N-m	lbs-ft	(Millimeters)
6 x 1.0	10 mm	8	6	11	8	8	6	11	8	6 x 1.0
8 x 1.25	13 mm	20	15	27	20	21	16	29	22	8 x 1.0
10 x 1.5	16 mm	39	29	54	40	41	30	57	42	10 x 1.25
12 x 1.75	18 mm	68	50	94	70	75	55	103	76	12 x 1.25
14 x 2.0	21 mm	109	80	151	111	118	87	163	120	14 x 1.5
16 x 2.0	24 mm	169	125	234	173	181	133	250	184	16 x 1.5
18 x 2.5	27 mm	234	172	323	239	263	194	363	268	18 x 1.5
20 x 2.5	30 mm	330	244	457	337	367	270	507	374	20 x 1.5
22 x 2.5	34 mm	451	332	623	460	495	365	684	505	22 x 1.5
24 x 3.0	36 mm	571	421	790	583	623	459	861	635	24 x 2.0
30 x 3.0	46 mm	1175	867	1626	1199	1258	928	1740	1283	30 x 2.0

Typical Washer Installations Bolt

Lock Washer ωĽ





Appendix 32

8/9/00

Œ

Bolt Torque & Size Charts (Rev. 3/28/2007)

BOLT SIZE CHART

NOTE: Chart shows bolt thread sizes and corresponding head (wrench) sizes for standard SAE and metric bolts.



ABBREVIATIONS

AG	Agriculture
ASABE	American Society of Agricultural & Biological Engineers (formerly ASAE)
ASAEAme	rican Society of Agricultural Engineers
ATF	Automatic Transmission Fluid
BSPP	British Standard Pipe Parallel
BSPTM	British Standard Pipe Tapered Male
CV	Constant Velocity
CCW	Counter-Clockwise
CW	Clockwise
F	Female
FT	Full Thread
GA	Gauge
GR (5, etc.)	Grade (5, etc.)
HHCS	Hex Head Cap Screw
HT	Heat-Treated
JIC	Joint Industry Council 37° Flare
LH	Left Hand
LT	Left
m	Meter
mm	Millimeter
Μ	Male

МРа	Mega Pascal
N	Newton
NC	National Coarse
NF	National Fine
NPSM	National Pipe Straight Mechanical
NPT	National Pipe Tapered
NPT SWF .	National Pipe Tapered Swivel Female
ORBM	O-Ring Boss - Male
Р	Pitch
PBY	Power-Beyond
psi	Pounds per Square Inch
РТО	Power Take Off
QD	Quick Disconnect
RH	Right Hand
ROPS	Roll-Over Protective Structure
RPM	Revolutions Per Minute
RT	Right
SAE	Society of Automotive Engineers
UNC	Unified Coarse
UNF	Unified Fine
UNS	Unified Special

WARRANTY

All Models Except Mow'n Machine™ Zero-Turn Mowers

Please Enter Information Below and Save for Future Reference.

Date Purchased: _

From (Dealer):

Model Number:

Serial Number: ____

Woods Equipment Company ("WOODS") warrants this product to be free from defect in material and workmanship. Except as otherwise set forth below, the duration of this Warranty shall be for TWELVE (12) MONTHS COMMENCING ON THE DATE OF DELIVERY OF THE PRODUCT TO THE ORIGINAL PURCHASER.

All current model backhoes, loaders and mounts (except 3-pt. SAF-T-LOK® mounts) are warranted for two (2) years from the date of delivery to the original purchaser. The limited warranty covers any defects in the material and/or workmanship. Following the proper, recommended installation by an authorized Woods Dealer and normal use of a Woods mounting and backhoe or loader, if a tractor incurs damage resulting from the attachment, Woods will cover the existing tractor warranty in the event the manufacturer voids its tractor warranty because of the attachment. Warranty does not cover any misuse or abusive conditions that could cause premature wear or damage to attachment or tractor.

The warranty periods for specific parts or conditions are listed below:

Part or Condition Warranted	Model Number	Duration (from date of delivery to the original purchaser)	
	All units invoiced after 4/30/2012		
	BB48X, BB60X, BB72X, BB84X, BB600X, BB720X, BB840X, BB6000X, BB7200X, BB8400X, DS12.50, TS14.60, DS1440, TS1680, DS8.30, DS10.40, DS8.50, DS08.50, DS10.50, DS010.50, DBH5.30, DBH6.30		
	BW12, BW15, BW126X, BW180X, BW126XHD, BW180XHD, BW1260X, BW1800X BW10.50, BW10.50Q, BW15.50, BW15.50Q, BW15.60, BW15.60Q, BW10.60Q	6 years	
Gearbox	BW240X, BW240XHD, BW1620X, BW2400X		
components	RD990X, PRD6000, PRD7200, PRD8400, S15CD, S20CD, S22CD, S25CD, S27CD, S30CD, TC/ R74, TC/R68, TC/R60, TBW144, TBW180, TBW204, TSG50, S12ED, S15ED, S18ED, S20ED, TPD25, TPD35, TPD65, TPD95		
	RDC54, RD60, RD72, TBW150C, TS/R60, TS/R52, TS/R44, RC3.5, RC4, RC5, RC6	3 years (1 year if used in rental or commercial applications)	
Blade spindles	RD990X, PRD6000, PRD7200, PRD8400, TBW144, TBW180, TBW204	3 years	

Under no circumstances will this Warranty apply in the event that the product, in the good faith opinion of WOODS, has been subjected to improper operation, improper maintenance, misuse, or an accident. This Warranty does not apply in the event that the product has been materially modified or repaired by someone other than WOODS, a WOODS authorized dealer or distributor, and/or a WOODS authorized service center. This Warranty does not cover normal wear or tear, or normal maintenance items. This Warranty also does not cover repairs made with parts other than those obtainable through WOODS.

This 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 purchaser in any way. There are no third party beneficiaries of this Warranty.

WOODS makes no warranty, express or implied, with respect to engines, batteries, tires or other parts or accessories not manufactured by WOODS. Warranties for these items, if any, are provided separately by their respective manufacturers.

WOODS' obligation under this Warranty is limited to, at WOODS' option, the repair or replacement, free of charge, of the product if WOODS, in its sole discretion, deems it to be defective or in noncompliance with this Warranty. **The product must be returned to WOODS with proof of purchase within thirty (30) days after such defect or noncompliance is discovered or should have been discovered, routed through the dealer and distributor from whom the purchase was made, transportation charges prepaid. WOODS shall complete such repair or replacement within a reasonable time after WOODS receives the product. THERE ARE NO OTHER REMEDIES UNDER THIS WARRANTY. THE REMEDY OF REPAIR OR REPLACEMENT IS THE SOLE AND EXCLUSIVE REMEDY UNDER THIS WARRANTY.**

THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE OF THIS WARRANTY. WOODS MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, AND WOODS SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTY OF MERCHANTABILITY AND/OR ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

WOODS shall not be liable for any incidental or consequential losses, damages or expenses, arising directly or indirectly from the product, whether such claim is based upon breach of contract, breach of warranty, negligence, strict liability in tort or any other legal theory. Without limiting the generality of the foregoing, Woods specifically disclaims any damages relating to (i) lost profits, business, revenues or goodwill; (ii) loss of crops; (iii) loss because of delay in harvesting; (iv) any expense or loss incurred for labor, supplies, substitute machinery or rental; or (v) any other type of damage to property or economic loss.

This Warranty is subject to any existing conditions of supply which may directly affect WOODS' ability to obtain materials or manufacture replacement parts.

No agent, representative, dealer, distributor, serviceperson, salesperson, or employee of any company, including without limitation, WOODS, its authorized dealers, distributors, and service centers, is authorized to alter, modify, or





WOODS[®] | A Blount International Brand

2606 South Illinois Route 2 Post Office Box 1000 Oregon, Illinois 61061 USA

800-319-6637 tel 800-399-6637 fax woodsequipment.com

WARRANTY

(Replacement Parts For All Models Except Mow'n Machine[™] Zero-Turn Mowers and Woods Boundary[™] Utility Vehicles)

Woods Equipment Company ("WOODS") warrants this product to be free from defect in material and workmanship for a period of ninety (90) days from the date of delivery of the product to the original purchaser with the exception of V-belts, which will be free of defect in material and workmanship for a period of 12 months.

Under no circumstances will this Warranty apply in the event that the product, in the good faith opinion of WOODS, has been subjected to improper operation, improper maintenance, misuse, or an accident. This Warranty does not cover normal wear or tear, or normal maintenance items.

This 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 purchaser in any way. There are no third party beneficiaries of this Warranty.

WOODS' obligation under this Warranty is limited to, at WOODS' option, the repair or replacement, free of charge, of the product if WOODS, in its sole discretion, deems it to be defective or in noncompliance with this Warranty. The product must be returned to WOODS with proof of purchase within thirty (30) days after such defect or noncompliance is discovered or should have been discovered, routed through the dealer and distributor from whom the purchase was made, transportation charges prepaid. WOODS shall complete such repair or replacement within a reasonable time after WOODS receives the product. THERE ARE NO OTHER REMEDIES UNDER THIS WARRANTY. THE REMEDY OF REPAIR OR REPLACEMENT IS THE SOLE AND EXCLUSIVE REMEDY UNDER THIS WARRANTY.

THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE OF THIS WARRANTY. WOODS MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, AND WOODS SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTY OF MERCHANTABILITY AND/OR ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

WOODS shall not be liable for any incidental or consequential losses, damages or expenses, arising directly or indirectly from the product, whether such claim is based upon breach of contract, breach of warranty, negligence, strict liability in tort or any other legal theory. Without limiting the generality of the foregoing, Woods specifically disclaims any damages relating to (i) lost profits, business, revenues or goodwill; (ii) loss of crops; (iii) loss because of delay in harvesting; (iv) any expense or loss incurred for labor, supplies, substitute machinery or rental; or (v) any other type of damage to property or economic loss.

This Warranty is subject to any existing conditions of supply which may directly affect WOODS' ability to obtain materials or manufacture replacement parts.

No agent, representative, dealer, distributor, service person, salesperson, or employee of any company, including without limitation, WOODS, its authorized dealers, distributors, and service centers, is authorized to alter, modify, or enlarge this Warranty.

Answers to any questions regarding warranty service and locations may be obtained by contacting:

WOODS[®] | A Blount International Brand 2606 South Illinois Route 2 Post Office Box 1000 Oregon, Illinois 61061 USA

800-319-6637 tel 800-399-6637 fax woodsequipment.com



ALITEC

GANNON®

WOODS[®]

WAIN-ROY[®]

CENTRAL FABRICATORS®

©2017 Woods Equipment Company. All rights reserved. Woods[®] and the Woods logo are trademarks of Woods Equipment Company. All other trademarks, trade names, or service marks not owned by Woods Equipment Company that appear in this manual are the property of their respective companies or mark holders. Specifications subject to change without notice.

PART NO. **MAN1170**

WOODS® | A Blount International Brand

2606 South Illinois Route 2 Post Office Box 1000 Oregon, Illinois 61061 USA

800-319-6637 tel 800-399-6637 fax woodsequipment.com



© 2018 Woods Equipment Company. All rights reserved. Woods[®] and the Woods logo are trademarks of Woods Equipment Company. All other trademarks, trade names, or service marks not owned by Woods Equipment Company that appear in this manual are the property of their respective companies or mark holders. Specifications subject to change without notice.