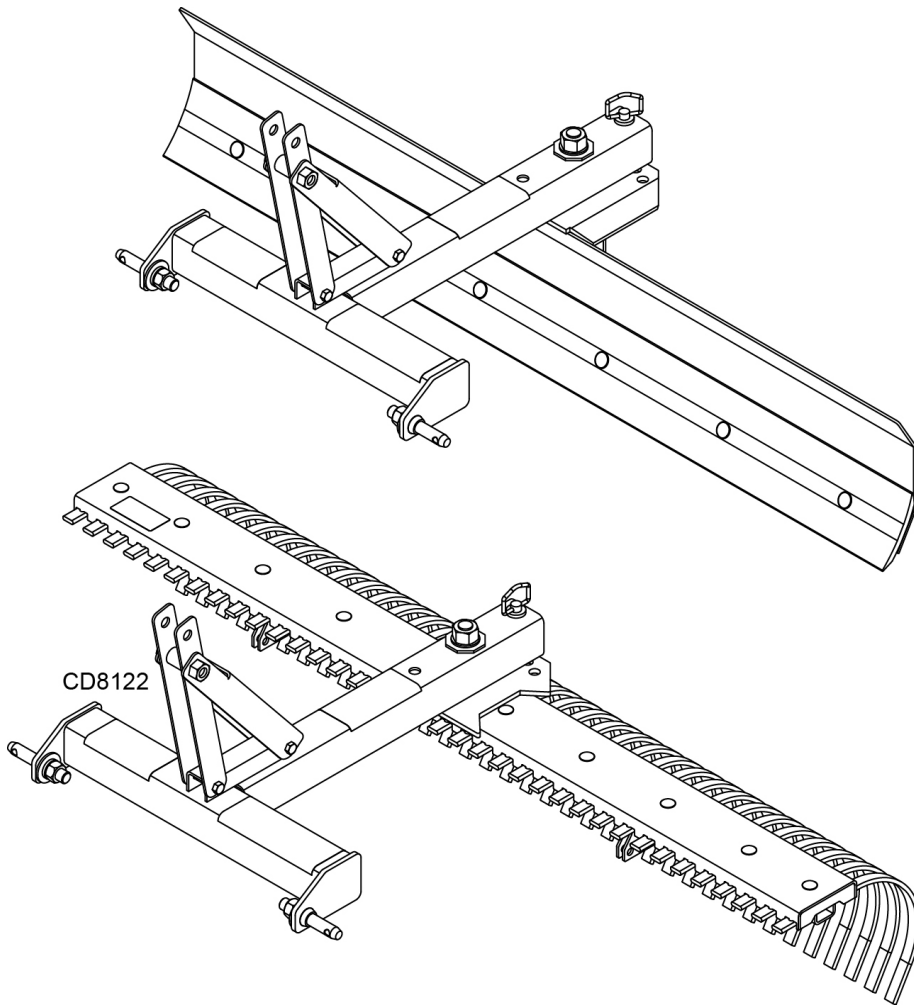


REAR BLADE & LANDSCAPE RAKE

RBS54, RBS60, RBS72
LRS52, LRS60, LRS72
RBS60P, RBS72P, RBS84P
LRS72P, LRS84P, LRS96P



MAN1047

Rev. 12/20/2018

WOODS®

OPERATOR'S MANUAL

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.

**IMPORTANT
or NOTICE**

Is used to address practices not related to physical injury.

NOTE Indicates helpful information.

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

WOODS®
Woods Equipment Company

2 Introduction

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

TABLE OF CONTENTS

INTRODUCTION	INSIDE FRONT COVER
SPECIFICATIONS	4
GENERAL INFORMATION	4
SAFETY RULES	5
SAFETY DECALS	7
OPERATION	9
MAINTENANCE	14
ASSEMBLY	16
DEALER CHECK LISTS	22
PARTS	23
BOLT TORQUE CHART	32
BOLT SIZE CHART & ABBREVIATIONS	33
PRODUCT WARRANTY	34
REPLACEMENT PARTS WARRANTY	INSIDE BACK COVER



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

Models	RBS54 RBS60 RBS72	RBS60P RBS72P RBS84P	LRS52 LRS60 LRS72	LRS72P LRS84P LRS96P
Unit Weight (Pounds)	134, 142, 156	268, 288, 308	156, 168, 186	264, 288, 311
Horse Power	30 HP Max	20 - 45 HP	30 HP Max	20 - 45 HP
Working Width	54", 60", 72"	60", 72", 84"	52", 60", 72"	72", 84", 96"
Hitch Category	Cat 0/Limited Cat 1/Cat 1	Cat 1	Cat 0/Limited Cat 1/ Cat 1	Cat 1
Angle Adjustments - Increments	Forward - 5 @ 30° / Rearward - 5 @ 30°			
Offset Increments	None	12" Right or Left	None	None
Tilt Increments	None	15° Right or Left	None	None
Moldboard Height	13"	15"	NA	NA
Moldboard Thickness	3/16"	1/4"	NA	NA
Tine Dimensions	NA	NA	5/16" x 1"	5/16" x 1"
Tine Spacing	NA	NA	1"	1"
Tine Beam Dimensions	NA	NA	1.50" x 5.75"	1.88" x 5.88"
Options	Skid Shoes Parking Stand	Skid Shoes End Plates Parking Stand	Gauge Wheels Parking Stand	Gauge Wheels Parking Stand

GENERAL INFORMATION

The purpose of this manual is to assist you in operating and maintaining your equipment. 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. However, 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 tractor facing the direction of forward travel.

SAFETY RULES



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.

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 shut down 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.**

■ **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.**

■ **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.**

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

■ **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.

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

■ **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.**

OPERATION

■ **Consult local utilities before working. Know location of all underground cables, pipelines, overhead wires, and other hazards in working area and avoid contact.**

■ **Keep bystanders away from equipment.**

■ **Do not operate or transport 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 or transport on steep slopes.**

(Safety Rules continued on next page)



SAFETY RULES

ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!



(Safety Rules continued from previous page)

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

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.
- 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.

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

- 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.)

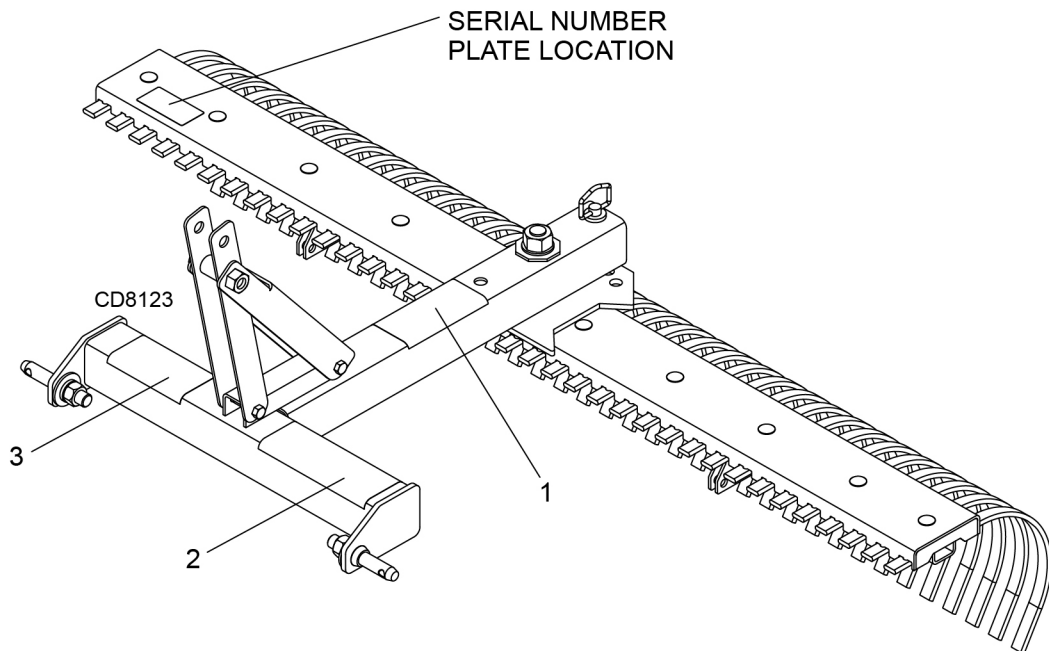
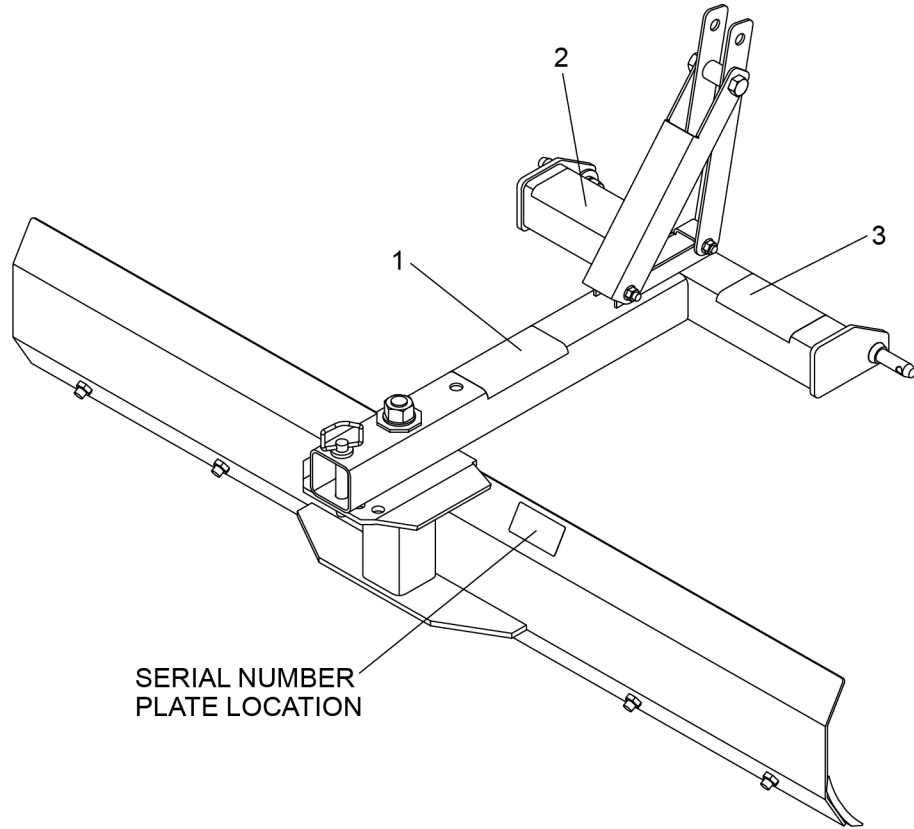
STORAGE

- Block equipment securely for storage.
- Keep children and bystanders away from storage area.
- Follow manual instructions for storage.



SAFETY & INSTRUCTIONAL DECALS

ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!





SAFETY & INSTRUCTIONAL DECALS

ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!



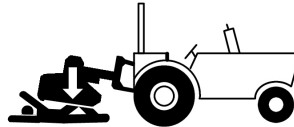
Replace Immediately If Damaged!

Serial Number Plate



2 - 1004299

WARNING



FALLING OFF CAN RESULT IN BEING RUN OVER.

- Tractor must be equipped with ROPS (or ROPS CAB) and seat belt. Keep foldable ROPS systems in "locked up" position at all times.
- Buckle Up! Keep seat belt securely fastened.
- Allow no riders.

RAISED IMPLEMENT CAN DROP AND CRUSH.

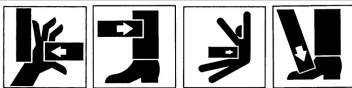
- Never go underneath raised implement which can drop from equipment or tractor 3-point hitch hydraulic leak down, hydraulic system failures, movement of control levers, or mechanical linkage failures.
- Service work does not require going underneath implement. Read manual instructions.

FALLING OFF OR GOING UNDERNEATH IMPLEMENT CAN RESULT IN SERIOUS INJURY OR DEATH.

1004299

1 - 1002941

WARNING



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

WARNING

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

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.

This equipment is designed for a wide range of applications. The blade may be used for scraping, leveling, grading and backfilling. The rake may be used for loosening, leveling and clearing soil of debris.

The blade or rake may be angled to windrow debris to the side for removal.

WARNING

- Never allow children or untrained persons to operate equipment.
- Keep bystanders away from equipment.
- Never allow riders on power unit or attachment.
- A minimum 20% of tractor and equipment weight must be on the tractor front wheels when attachments 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.

CAUTION

- 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.

CONNECT REAR BLADE OR RAKE TO TRACTOR

1. This rake or blade should be mounted on tractors with a maximum drawbar rating of 30 engine hp, not to exceed 2400 lbs.
2. Adjust or remove tractor drawbar to eliminate interference with blade or rake.

Category 1

1. Place tractor 3-point lower lift arms over outer hitch pins.
2. Secure with klik pin (not provided) as shown in Figure 1.

3. Connect tractor top link by inserting tractor clevis pin into top hitch point on rear blade frame assembly and secure (Figure 1).



Figure 1. Lower Lift Arm Attachment and Top Link Connection, Category 1

Quick Hitch (Category 1 Only)

The RBS and LRS will attach to a Category 1 quick hitch.

An optional parking stand is available for use with a quick hitch.

1. Use Bushing Kit 1023725 when using a quick coupler.
2. Place bushings over mounting pin and secure into position with roll pin.
3. Align quick hitch with mounting pins and second hole from top on rear blade frame assembly.

Category 0 (Optional)

1. Place tractor 3-point lower lift arms over inner hitch pins.
2. Secure with safety pins (not provided) as shown in Figure 2.
3. Connect tractor top link to top hitch point on rear blade frame assembly and secure.



Figure 2. Lower Lift Arm Attachment, Category 0

Category 0 / 1 Hitch Pin Kit (Optional)

1. Remove existing hitch pins.
2. Place hitch pin (1) through rear blade assembly.
3. Secure with flat washer (2), lock washer (3) and hex nut (4).
4. Repeat for opposite side. See Figure 3.

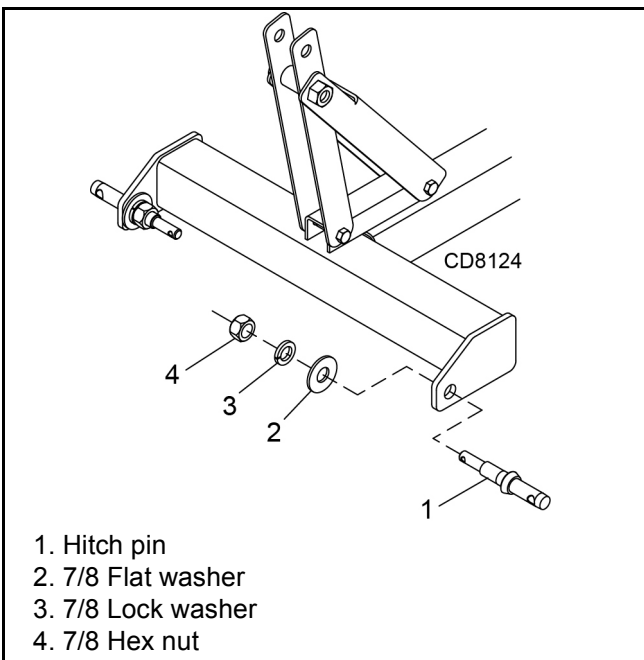


Figure 3. Hitch Pin Kit (Optional)

OPERATING TECHNIQUES

Level the A-frame and boom with 3-point connecting links and top link. Adjusting the top link length will change the fore and aft pitch of the tool.

Lengthening the top link will cause the tool to contact the ground with a sharper pitch and feed itself into the ground more readily.

When using the rake tool, you may need to adjust the tail wheels after adjusting pitch to maintain the desired working depth.

Position 3-point lift arm sway blocks or tighten sway chains to eliminate side sway. Install side braces if necessary.

Reversing (Blade or Rake)

For most tractors, the blade or rake may be rotated 360 degrees without unhooking from the tractor. To rotate without unhooking, pull hitch pin assembly.

Rotate to desired position; replace hitch pin assembly.

Angling (Blade or Rake)

Remove hitch pin assembly.

The blade or rake may be set 15 degrees or 30 degrees to the left or right for forward grading.

Tilting (Premium Series Blade Only)

The blade may be tilted 15 degrees either direction.

Loosen bolts (2) but do not remove. Tilt moldboard to desired position. Figure 4.

Tighten bolts (2) to proper torque specification.

Offsetting (Premium Series Blade Only)

The blade may be offset right or left 12" by moving pivot assembly along moldboard offset adjusting slot

Loosen bolts (2) but do not remove. Slide moldboard along offset adjusting slot until desired offset is obtained. Figure 4.

Tighten bolts (2) to proper torque specification..

Only offset blade when operating in light material such as sand, loose soil, or snow.

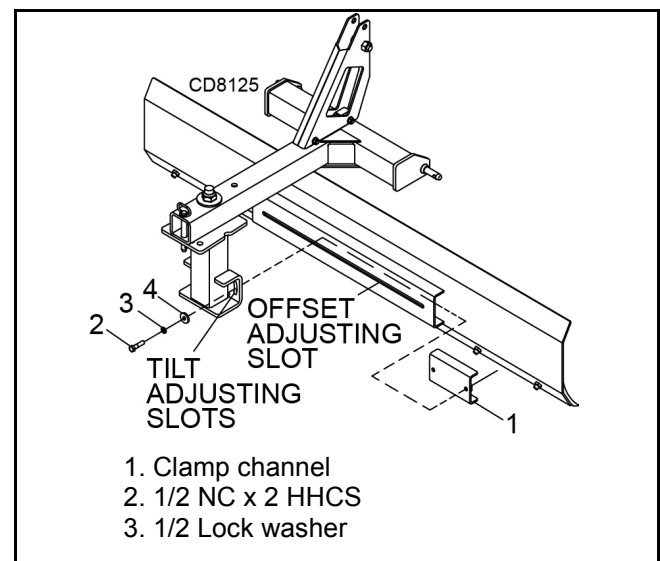


Figure 4. Moldboard Offset and Tilt Adjustment

Backfilling

Reverse blade for backfilling ditches or trenches (see Reversing).

The rake may also be used in light backfilling applications.

Cutting Ditches (Premium Series Blade Only)

Loosen bolts (2) but do not remove. Tilt moldboard left or right until desired blade angle is obtained.

Tighten bolts (2) to proper torque specification.

Angle blade to bring lower end forward. Bring lower point near the center line of the rear wheel track using 3-point hitch height adjustment. Figure 4.

Parking Stand Placement (Optional)

Assembly

1. Assemble parking stand holder (1) toward center of frame assembly using 3/8 hex head cap screw (3), 3/8 flat washers (4) and secure with 3/8 hex nut (5). Do not allow parking stand holder to cover any portion of safety decal. Figure 5.

Operating Position

1. Slide parking stand (2) into holder (1) and align lowest hole in parking stand with hole in parking stand holder.
2. Secure parking stand into position using lock pin (6).

Storage Position

1. Raise tractor 3-point arms.
2. Remove parking stand (2) from operating position.
3. Align hole in parking stand holder with appropriate hole in parking stand according to your particular blade or rake and secure into position with lock pin (6).

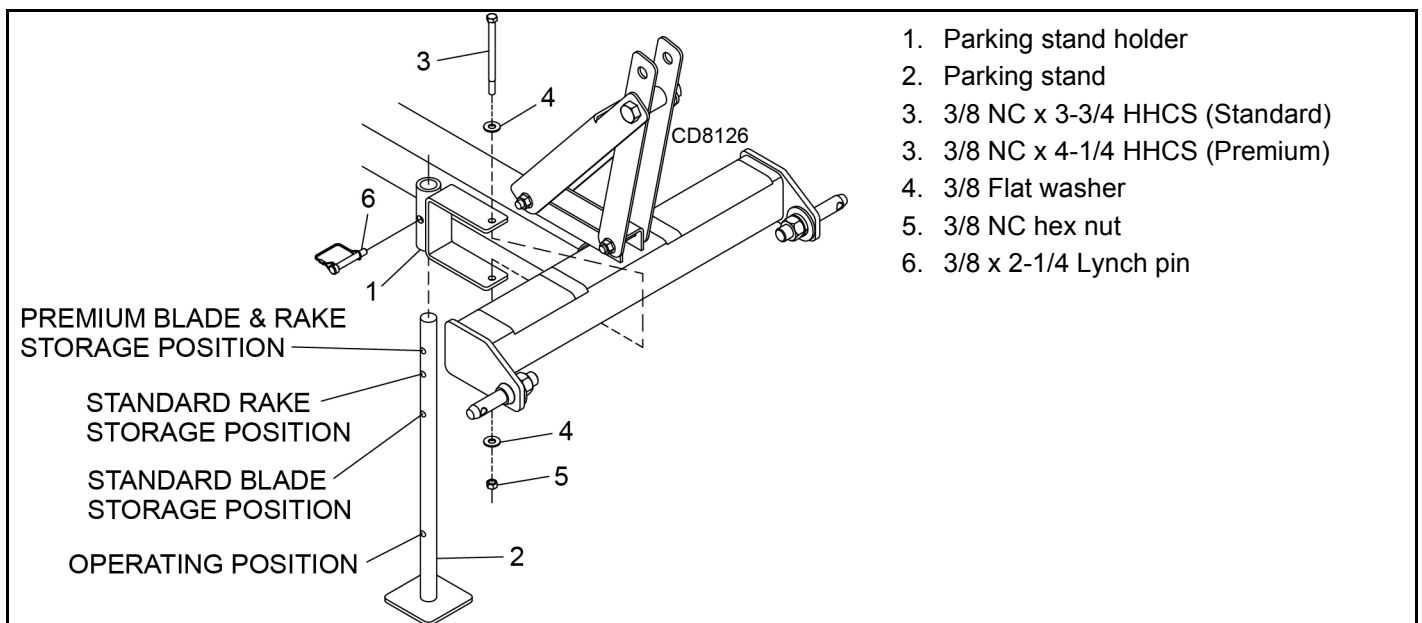


Figure 5. Parking Stand Assembly (Optional)

TAIL WHEEL ADJUSTMENT (OPTIONAL)
(STANDARD LANDSCAPE RAKE ONLY)

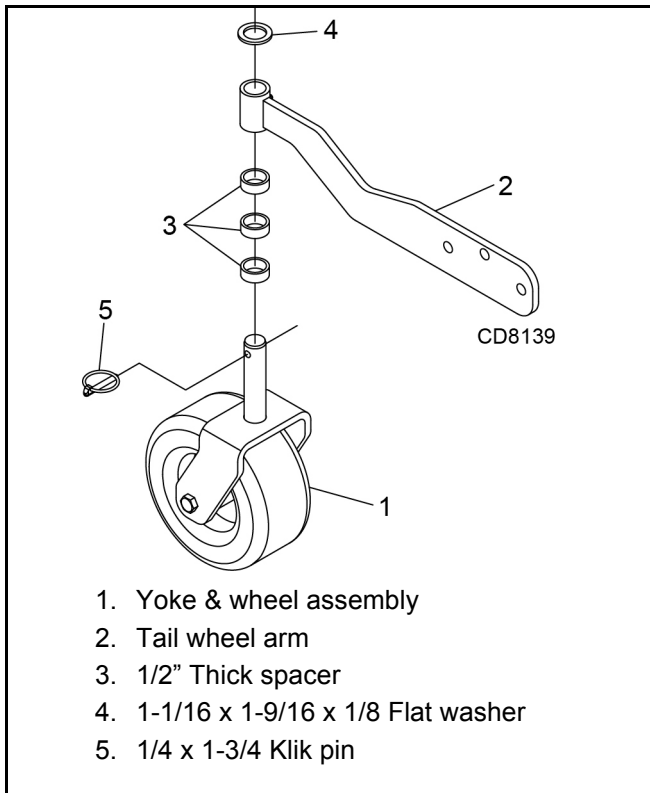


Figure 6. Tail Wheel Adjustment (Standard)

TAIL WHEEL ADJUSTMENT (OPTIONAL)
(PREMIUM LANDSCAPE RAKE ONLY)

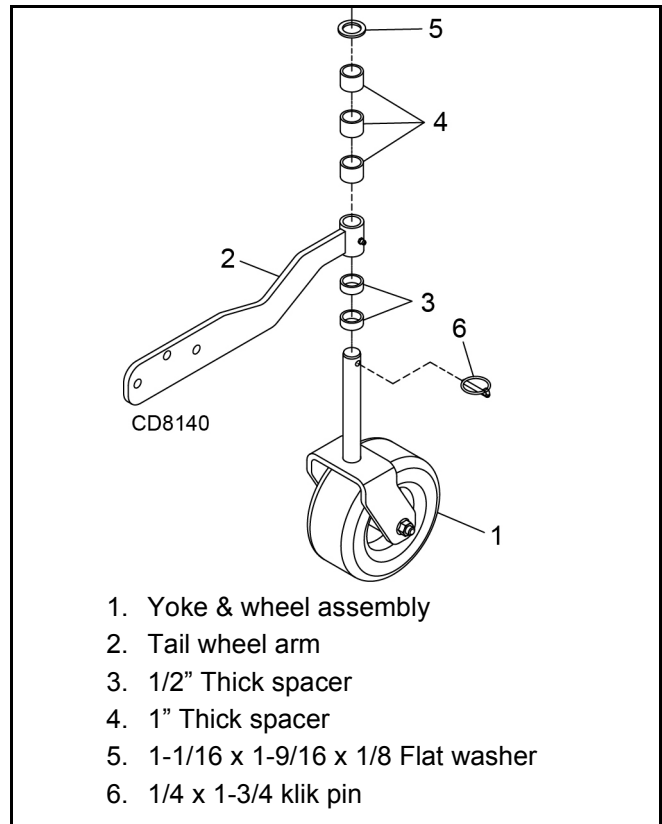


Figure 7. Tail Wheel Adjustment (Premium)

IMPORTANT

■ When optional tail wheels are installed behind rake, you must raise rake and tail wheels off of ground before operating in reverse.

1. Raise rake until wheels clear the ground.
2. Remove klik pin (5) from yoke shaft while holding wheel. Remove flat washer (4).
3. Add or remove 1/2" thick spacers (3) above or below tail wheel arm (2).
4. Placing spacers below tail wheel arm raises the rake height.
5. When height is established, secure assembly by installing flat washer (4) and klik pin (5).
6. Adjust the pitch of the rake to maintain the desired working depth.
7. Position 3-point lift arm sway blocks or tighten sway chains to eliminate side sway. Install side braces if necessary.

NOTE: Use a good multi-purpose grease to lubricate pivot tube and tail wheel every 8 hours of operation.

IMPORTANT

■ When optional tail wheels are installed behind rake, you must raise rake and tail wheels off of ground before operating in reverse.

1. Raise rake until wheels clear the ground.
2. Remove klik pin (6) from yoke shaft while holding wheel. Remove flat washer (5).
3. Add or remove any combination of 1/2" thick spacers (3) and 1" thick spacers (4) above or below tail wheel arm (2).
4. Placing any spacer below tail wheel arm raises the rake height.
5. When height is established, secure assembly by installing flat washer (5) and klik pin (5).
6. Adjust the pitch of the rake to maintain the desired working depth.
7. Position 3-point lift arm sway blocks or tighten sway chains to eliminate side sway. Install side braces if necessary.

NOTE: Use a good multi-purpose grease to lubricate pivot tube and tail wheel every 8 hours of operation.

PRE-OPERATION CHECK LIST

(Owner's Responsibility Before Each Use)

- ___ Review and follow all safety rules and safety decal instructions on pages 5 through 8.
- ___ Check that all safety decals are installed and in good condition. Replace if damaged.
- ___ Check that all hardware is properly installed and secured.
- ___ Check that equipment is properly and securely attached to tractor.
- ___ Do not allow riders.
- ___ Make sure tractor ROPS or ROPS cab and seat belt are in good condition. Keep seat belt securely fastened during operation.
- ___ Check that blade cutting edge is in good condition.
- ___ Consult local utilities before digging. Know location of and avoid contacting all underground cables, pipelines, overhead wires and other hazards in digging area.

MAINTENANCE

The information in this section is written for operators who possess basic mechanical skills. If you need help, your dealer has trained service technicians available. For your protection, read and follow all safety information in this manual.

WARNING

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

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

CAUTION

■ 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.

REPLACING BLADE CUTTING EDGE

Remove Cutting Edge

1. Remove plow bolts (3), and hex lock nuts (4).
2. Remove cutting edge (2) from moldboard (1) and replace with new cutting edge. Re-install hardware previously removed.

Reverse Cutting Edge

1. Remove plow bolts (3), and hex lock nuts (4).
2. Remove cutting edge (2) from moldboard and reverse cutting edge with sharp edge down. Re-install hardware previously removed.

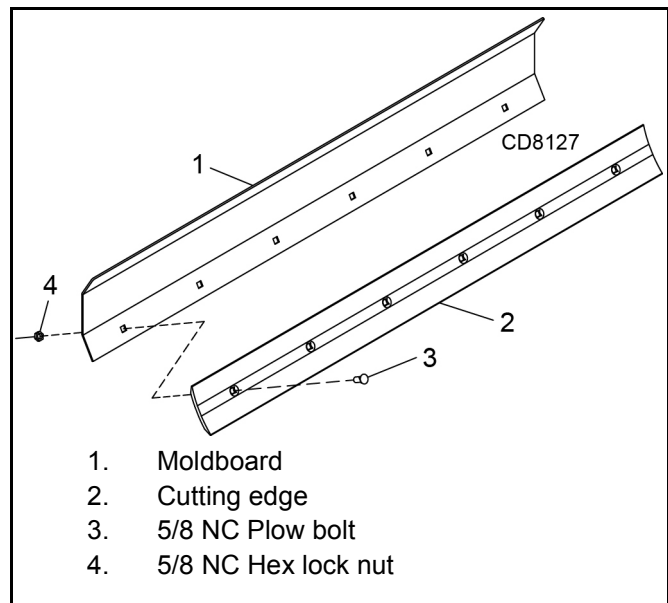


Figure 8. Cutting Edge Replacement

RAKE TINE REPLACEMENT

NOTE: Tines should be replaced when they cannot be reformed to their original configuration.

NOTE: Tine clamp channel (3) does not need to be completely removed to remove tines.

1. Loosen carriage bolts (4) and flange lock nuts (5) holding tine beam (2) and tine clamp channel (3) together. It is not necessary to completely remove hardware. Remove old tine.
2. Inset new tine, hole end first, into slot in rear of tine beam (2) and assemble hole in tine onto nub in front of tine channel. Tighten carriage bolts (4) and flange lock nuts (5).

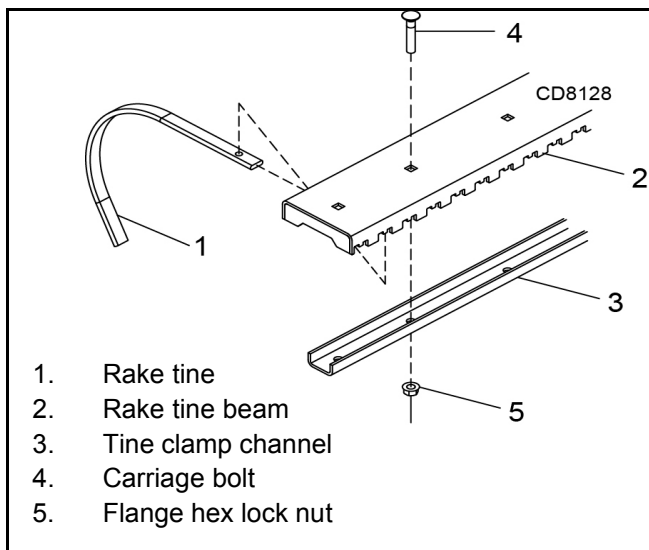


Figure 9. Rake Tine Replacement

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.

ASSEMBLY INSTRUCTIONS

DEALER SET-UP INSTRUCTIONS

Assembly of this Rear Blade/Landscape Rake is the responsibility of the WOODS dealer. It should be delivered to the owner completely assembled, lubricated and adjusted for normal cutting conditions.

The Rear Blade/Landscape Rake is shipped partially assembled. Assembly will be easier if components are aligned and loosely assembled before tightening hardware. Recommended torque values for hardware are located on page 24.

WARNING

■ 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.

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

CAUTION

■ 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.

Blade and Rake Assembly

Blade and Rake Assembly (Standard)

1. Assemble frame assembly onto threaded stud on moldboard or tine beam assembly and secure with flat washer (12) and nylock nut (13).
2. Remove hitch channel (3) from frame assembly. Reassemble channel to frame with 1/2 NC x 3-1/2 hex cap screw (7) and 1/2 NC flange lock nut (9).
3. Assemble top holes of hitch channel to middle hole of hitch links (4) using 3/4 NC x 3-1/2 hex cap screw (10) and 3/4 NC flange lock nut (11). Assemble sleeve (5) between hitch links.
4. Install 3/4 x 5 hitch pin (14) thru hole in frame assembly and into desired hole in pivot plate of moldboard or tine beam.

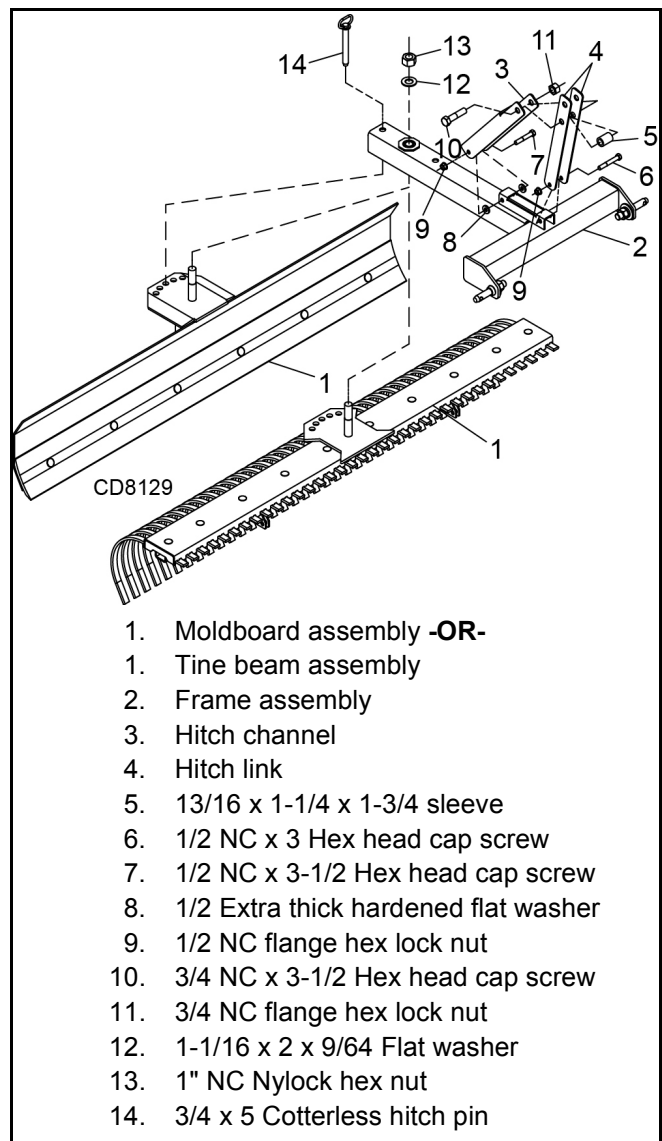


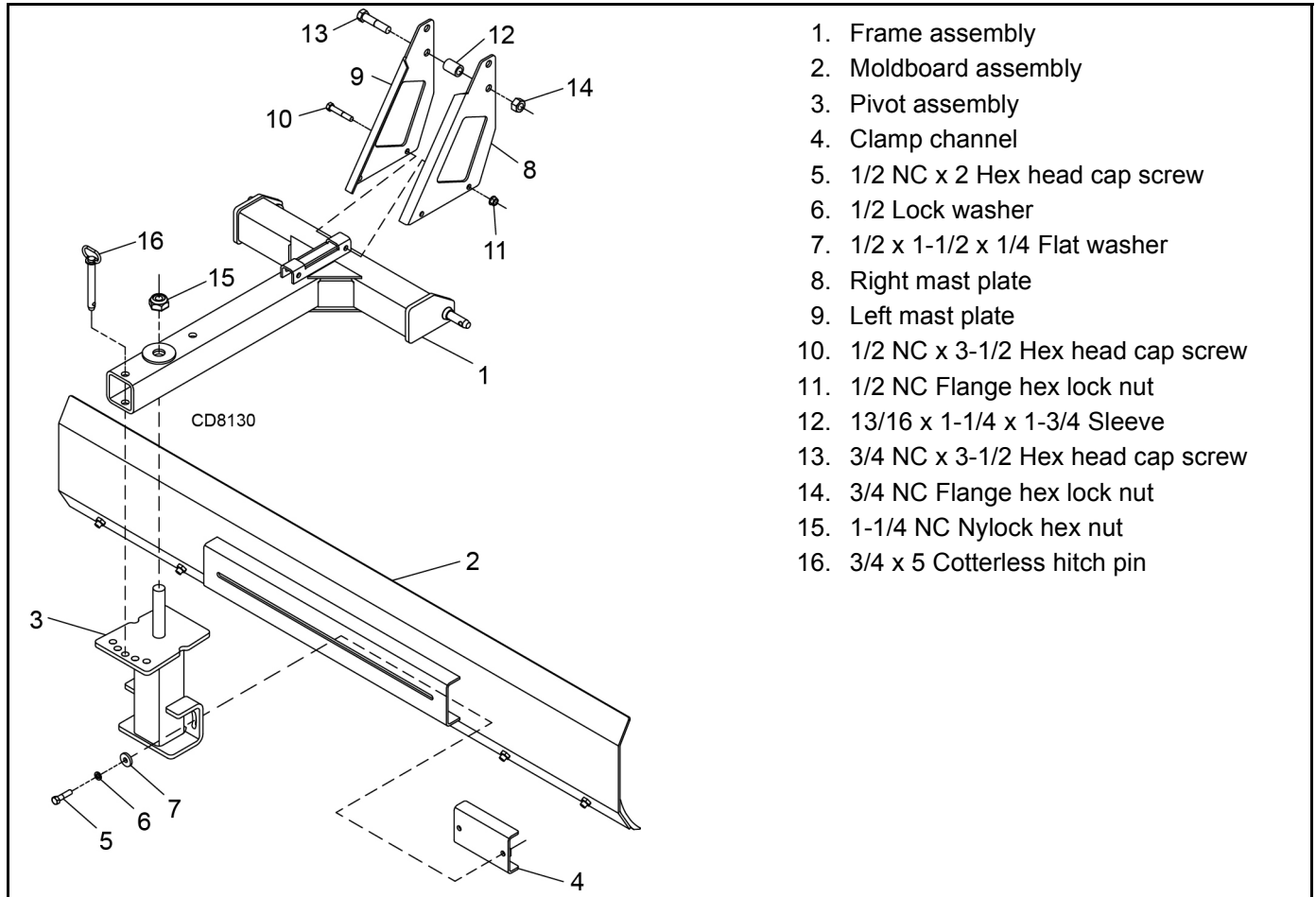
Figure 10. Standard Blade and Rake Assembly

Blade Assembly (Premium)

1. Remove clamp channel (4) from pivot assembly (3). Insert clamp channel into main channel on back of moldboard (2). Reinstall 1/2 NC x 2 hex cap screw (5), 1/2 lock washer (6) and 1/2 x 1-1/2 x 1/4 flat washer (7) to secure pivot to moldboard.
2. Support moldboard and pivot assembly in an upright position.
3. Place blade frame assembly (1) onto threaded stud on pivot assembly and secure with nylock nut (15).

Install hitch pin (16) through hole in frame and into desired hole in pivot assembly.

4. Assemble left and right mast plates (8 & 9) to frame assembly (1) using 1/2 NC x 3-1/2 hex cap screws (10) and 1/2 NC flange lock nuts (11).
5. Assemble 13/16 x 1-1/4 x 1-3/4 sleeve (12) between mast plates and secure with 3/4 NC x 3-1/2 hex cap screw (13) and 3/4 NC flange lock nut (14). Torque all hardware.



1. Frame assembly
2. Moldboard assembly
3. Pivot assembly
4. Clamp channel
5. 1/2 NC x 2 Hex head cap screw
6. 1/2 Lock washer
7. 1/2 x 1-1/2 x 1/4 Flat washer
8. Right mast plate
9. Left mast plate
10. 1/2 NC x 3-1/2 Hex head cap screw
11. 1/2 NC Flange hex lock nut
12. 13/16 x 1-1/4 x 1-3/4 Sleeve
13. 3/4 NC x 3-1/2 Hex head cap screw
14. 3/4 NC Flange hex lock nut
15. 1-1/4 NC Nylock hex nut
16. 3/4 x 5 Cotterless hitch pin

Figure 11. Premium Blade Assembly

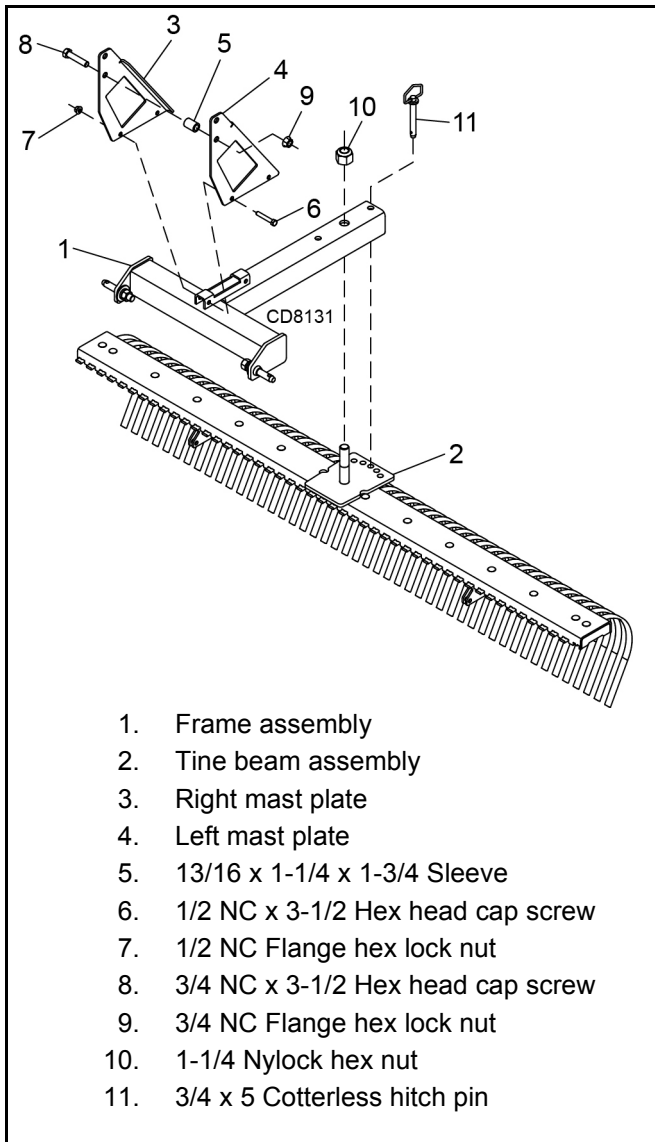


Figure 12. Premium Rake Assembly

Rake Assembly (Premium)

1. Assemble frame assembly (1) onto threaded stud on tine beam assembly (2) and secure with nylock nut (10). Install hitch pin (11) thru hole in frame and into desired hole in tine beam assembly.
2. Assemble left and right mast plates (3 & 4) to frame assembly (1) using 1/2 NC x 3-1/2 hex cap screws (6) and 1/2 NC flange lock nuts (7).
3. Assemble 13/16 x 1-1/4 x 1-3/4 sleeve (5) between mast plates and secure with 3/4 NC x 3-1/2 hex cap screw (8) and 3/4 NC flange lock nut (9). Torque all hardware.

**Tail Wheel Installation (Optional)
 (Landscape Rake Only)**

1. Remove landscape rake from tractor 3-point lift arms if attached.
2. Roll landscape rake over with tines pointing upward.
3. Place jack stands or suitable blocking device under tine beam to raise tine beam approximately 8 to 10 inches.
4. Place tail wheel arm assembly (2) between lugs on tine beam and align holes.
5. Secure into position using three 1/2 NC x 1-1/2 hex cap screws (3) and 1/2 NC flange lock nuts (4).

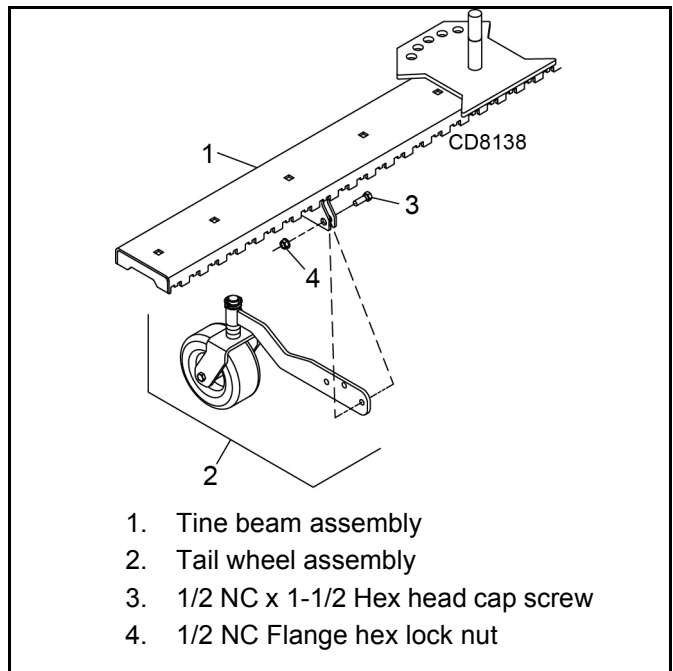


Figure 13. Tail Wheel Installation

Quick Hitch Bushing Kit (Optional)

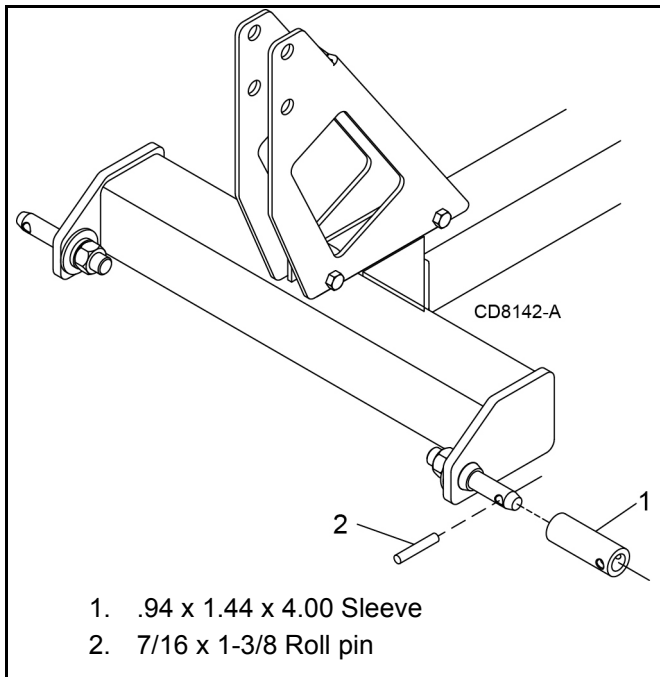


Figure 14. Quick Hitch Bushing Kit

1. Place sleeve (1) over lower 3-point pin, secure with roll pin (2). Repeat for opposite side.

Parking Stand (Optional)

Assembly

1. Assemble parking stand holder (1) toward center of frame assembly using 3/8 NC hex cap screw (3), 3/8 flat washers (4) and secure with 3/8 NC hex nut (5). Do not allow parking stand holder to cover any portion of safety decal. Figure 17.

Operating Position

1. Slide parking stand (2) into holder (1) and align lowest hole in parking stand with hole in parking stand holder.
2. Secure parking stand into position using lock pin (6).

Storage Position

1. Raise tractor 3-point arms.
2. Remove parking stand from operating position.
3. Align hole in parking stand holder with appropriate hole in parking stand according to your particular blade or rake and secure into position with lock pin (6).

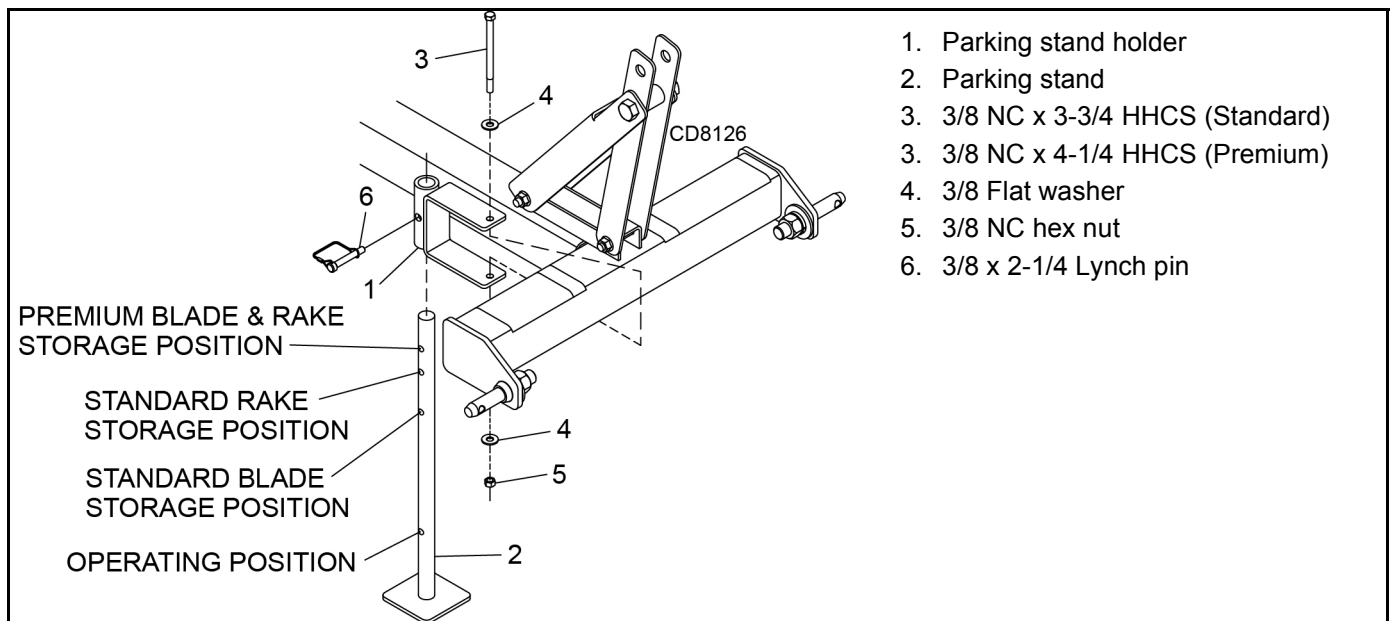


Figure 15. Parking Stand

Category 0 / 1 Hitch Pin Kit (Optional)

1. Remove existing hitch pins.
2. Place hitch pin (1) through rear blade assembly.
3. Secure with flat washer (2), lock washer (3) and hex nut (4).
4. Repeat for opposite side. See Figure 18.

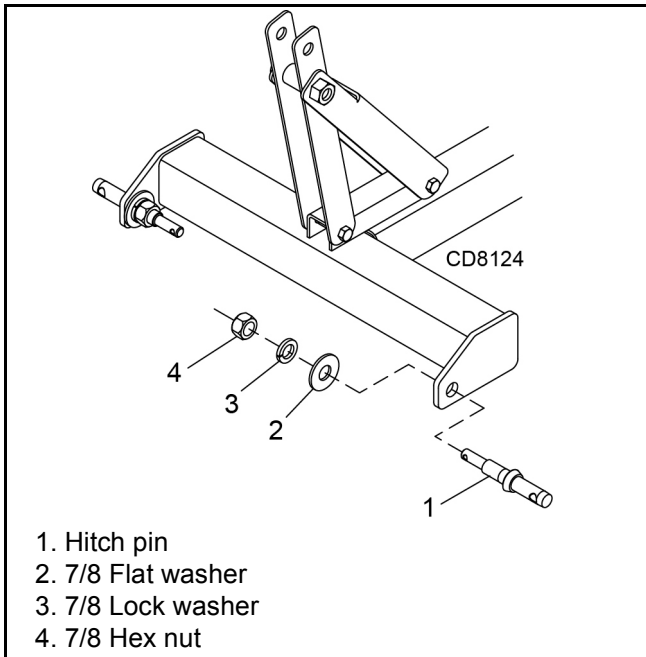


Figure 16. Hitch Pin Kit

End Plate Kit (RBS Premium Only) (Optional)

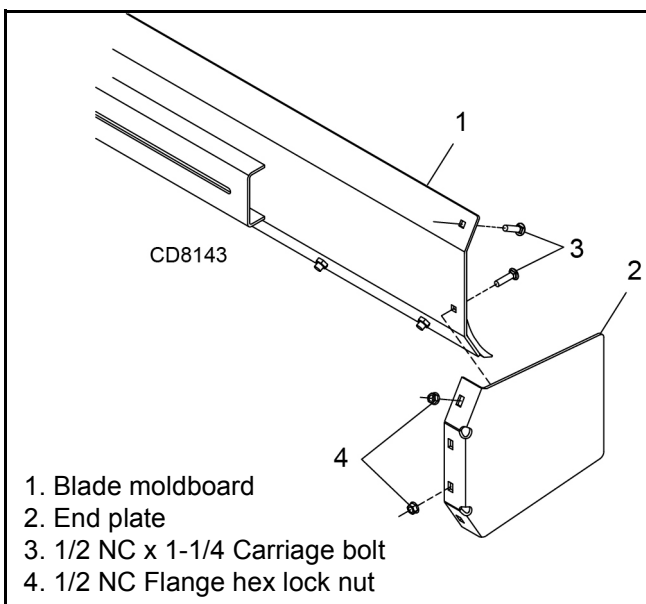


Figure 17. End Plate Installation

Assemble one end plate (2) to each end of blade using two carriage bolts (3) and flange lock nuts (4) on each end plate.

Skid Shoe Kit (Optional)

1. Remove plow bolts from each end of cutting edge.
2. Attach skid shoe (1) to rear of moldboard with 5/8 NC x 2 plow bolt (2), 5/8 hardened flat washer (3) and 5/8 NC hex lock nut (4), supplied in kit.
3. Adjust skid shoe to desired height.
4. Repeat steps for opposite side of moldboard.

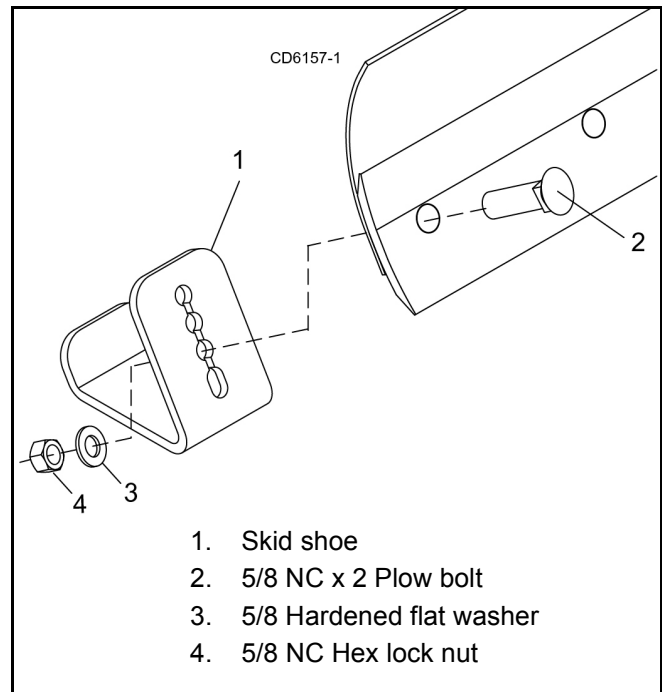


Figure 18. Basic Skid Shoe Installation

Skid Shoe Kit (Optional)

Remove plow bolts from each end of cutting edge.

Attach right and left skid shoe brackets (3 & 4) to rear of moldboard with plow bolts (8), washers (9), and lock nuts (10) supplied in kit. Top of skid shoe brackets should angle slightly toward edge of blade.

Adjust skid shoe to desired height using washers (7) and spacers (5). One washer must be installed between the shoe bracket and the spacers.

Make sure skid shoe rotates freely to prevent premature skid pad wear.

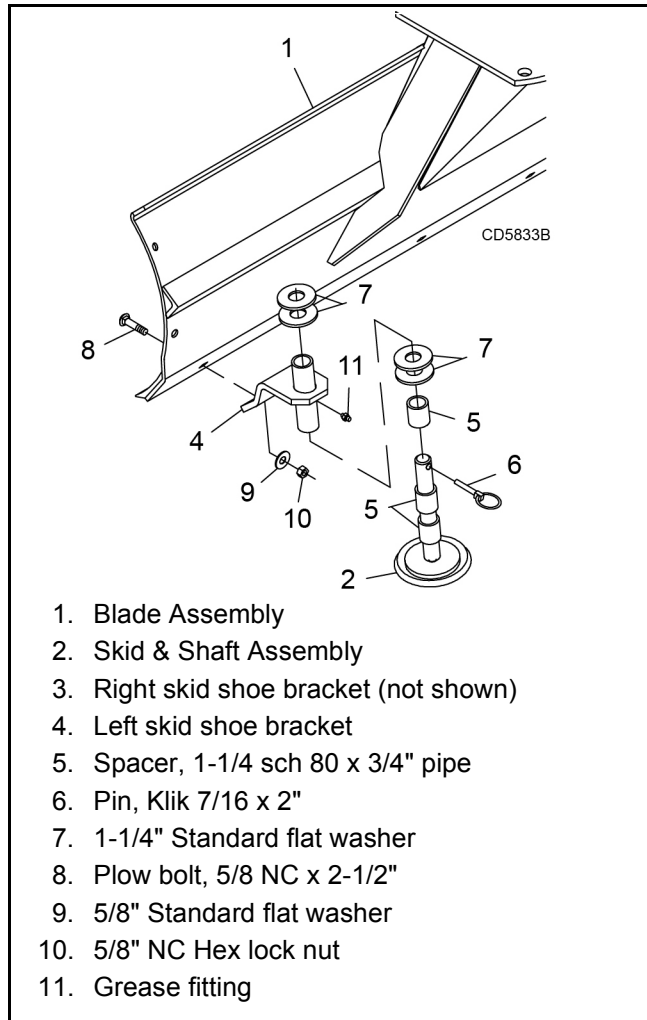


Figure 19. Premium Skid Shoe Installation

DEALER CHECK LISTS

PRE-DELIVERY CHECK LIST

Inspect the equipment thoroughly after assembly to ensure it is set up properly before delivering it to the customer.

The following check lists are a reminder of points to inspect. Check off each item as it is found satisfactory or after proper adjustment is made.

- ___ Check that all safety decals are installed and in good condition. Replace if damaged.
- ___ Properly attach implement to tractor and make all necessary adjustments.
- ___ Check parking stand for proper operation.
- ___ Check all bolts to be sure they are properly torqued.
- ___ Check that all cotter pins and safety pins are properly installed. Replace if damaged.

DELIVERY CHECK LIST

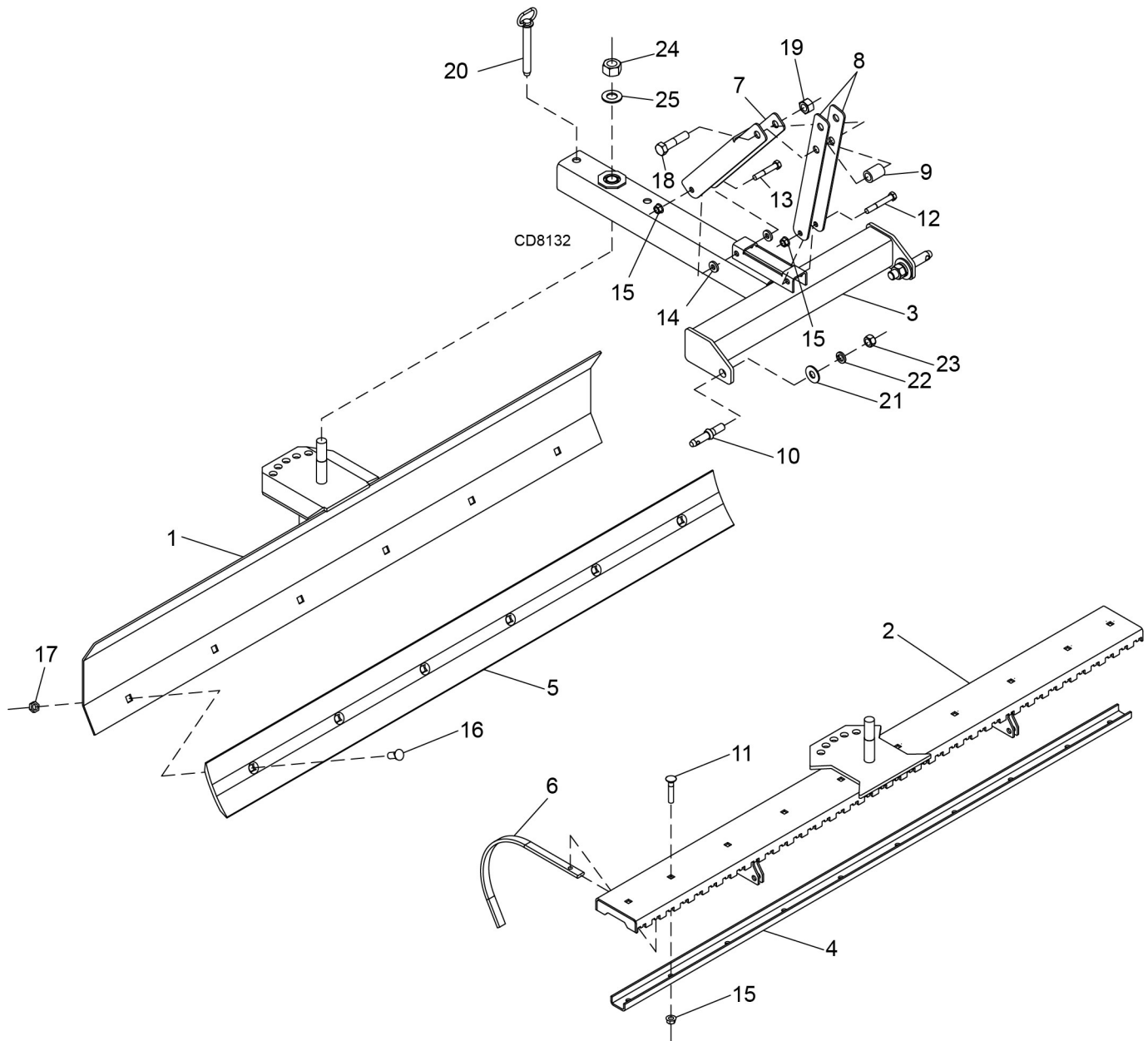
- ___ Show customer how to make adjustments.
- ___ Instruct customer how to lubricate and explain importance of lubrication.
- ___ Point out the safety decals. Explain their meaning and the need to keep them in place and in good condition. Emphasize the increased safety hazards when instructions are not followed.
- ___ 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.
- ___ 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.
- ___ Show customer the safe, 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!
- ___ Make customer aware of optional equipment available so that customer can make proper choices as required.

REAR BLADE & LANDSCAPE RAKE

**RBS54, RBS60, RBS72
LRS52, LRS60, LRS72
RBS60P, RBS72P, RBS84P
LRS72P, LRS84P, LRS96P**

RBS & LRS STANDARD ASSEMBLY	24 - 25
RBS PREMIUM ASSEMBLY	26
LRS PREMIUM ASSEMBLY	27
RBS & LRS PARKING STAND (OPTIONAL).....	28
CATEGORY 1 QUICK HITCH BUSHING KIT (OPTIONAL)	28
LRS TAIL WHEEL STANDARD (OPTIONAL)	29
BASIC SKID SHOE KIT (OPTIONAL)	29
LRS TAIL WHEEL PREMIUM (OPTIONAL).....	30
CATEGORY 0/1 HITCH PIN KIT (OPTIONAL)	30
PREMIUM SKID SHOE KIT (OPTIONAL)	31
END PLATE KIT RBS PREMIUM (OPTIONAL).....	31

RBS54, RBS60 & RBS72 ASSEMBLY LRS52, LRS60 & LRS72 ASSEMBLY



26 - DECAL SET - REAR BLADE
27 - DECAL SET - LANDSCAPE RAKE

24 Parts

(Rev. 11/10/2014)
MAN1047 (Rev. 4/15/2014)

RBS54, RBS60 & RBS72 ASSEMBLY LRS52, LRS60 & LRS72 ASSEMBLY

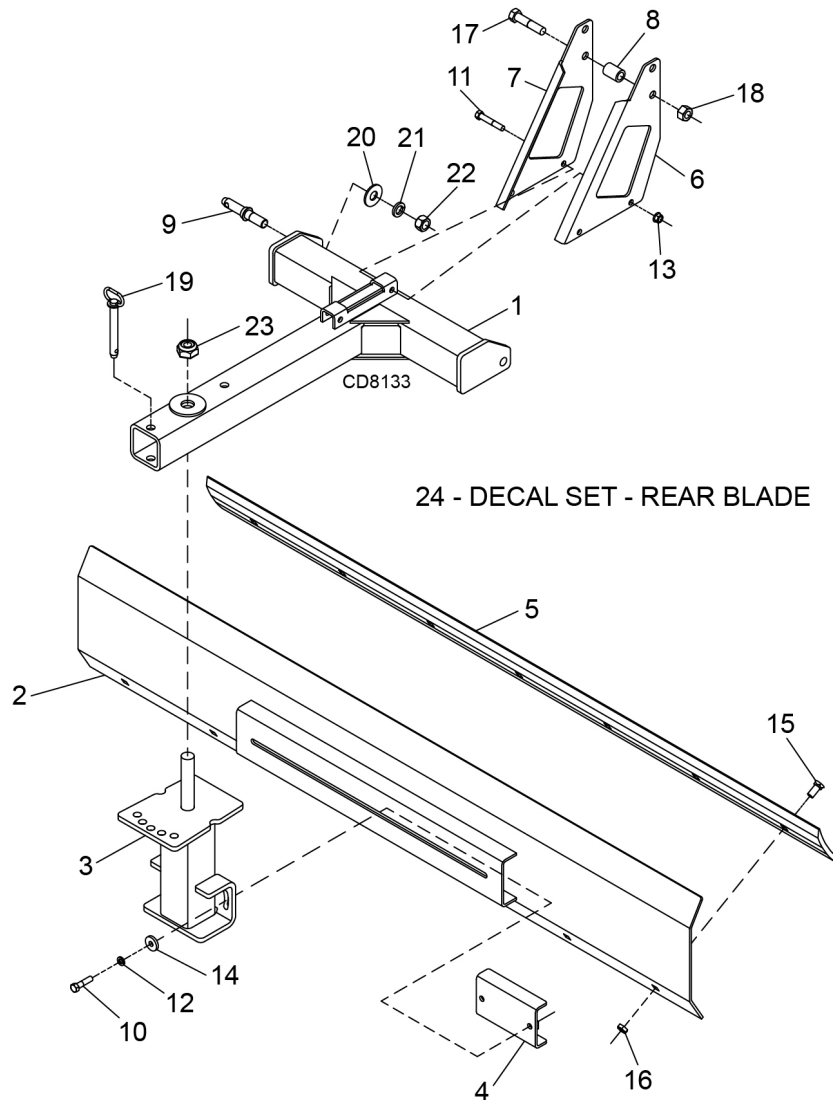
REF	PART	QTY	DESCRIPTION	REF	PART	QTY	DESCRIPTION
1	103741154RP	1	RBS54 Moldboard	11	54982*	A/R	1/2 NC x 2-3/4 Carriage bolt, GR5
1	103741160RP	1	RBS60 Moldboard	12	3489*	1	1/2 NC x 3 HHCS, GR5
1	103741172RP	1	RBS72 Moldboard	13	1637*	1	1/2 NC x 3-1/2 HHCS, GR5
2	103743152RP	1	LRS52 Tine beam	14	57811	2	1/2 Extra thick hardened flat washer
2	103743160RP	1	LRS60 Tine beam	15	11900*	A/R	1/2 NC Flange hex lock nut
2	103743172RP	1	LRS72 Tine beam	16	25265	A/R	5/8 NC x 1-1/2 Plow bolt
3	1043075	1	Hitch frame	17	6239*	A/R	5/8 NC Hex lock nut
4	103742752RP	1	LRS52 Clamp channel -OR-	18	15007	1	3/4 NC x 3-1/2 HHCS, GR5
4	103742760RP	1	LRS60 Clamp channel -OR-	19	W302207	1	3/4 NC Flange hex lock nut
4	103742772RP	1	LRS72 Clamp channel	20	1037591	1	3/4 x 4-1/8 Hitch pin
5	1037454	1	RBS54 Cutting edge -OR-	21	4258	2	7/8 Std flat washer
5	1037460	1	RBS60 Cutting edge -OR-	22	30008	2	7/8 Lockwasher
5	1037472	1	RBS72 Cutting edge	23	30007	2	7/8 NF Hex nut
6	1005370	A/R	LRS Rake tine	24	1035379	1	1 NC Nylock hex nut
7	1037446RP	1	Hitch channel	25	1037449	1	1.06 x 2 x .14 Hardened flat washer
8	1037445RP	2	Hitch link	26	1040410	1	Decal set, complete - Rear Blade
9	1004661RP	1	Sleeve, .812 x 1.25 x 1.75	27	1040411	1	Decal set, complete - Landscape Rake
10	33661RP	2	Category 1 mounting pin (Includes lock washer 20 & nut 21)				

A/R As Required

HHCS - Hex Head Cap Screw

* Standard hardware - obtain locally

RBS60, RBS72 & RBS84 (PREMIUM) ASSEMBLY



REF	PART	QTY	DESCRIPTION	REF	PART	QTY	DESCRIPTION
1	1043076	1	Hitch frame	10	3699*	2	1/2 NC x 2 HHCS, GR5
2	103751160RP	1	RBS60 Moldboard -OR-	11	1637*	2	1/2 NC x 3-1/2 HHCS, GR5
2	103751172RP	1	RBS72 Moldboard -OR-	12	855*	2	1/2 Lock washer
2	103751184RP	1	RBS84 Moldboard	13	11900*	2	1/2 NC Flange hex lock nut
3	1037513RP	1	Pivot weldment	14	1036161	2	.53 x 1.25 x .25 Belleville washer
4	1037509RP	1	Clamp channel	15	25265	A/R	5/8 NC x 1-1/2 Plow bolt
5	32280 *	1	RBS60 Cutting edge -OR-	16	6239*	A/R	5/8 NC Hex lock nut
5	25258	1	RBS72 Cutting edge -OR-	17	15007	1	3/4 NC x 3-1/2 HHCS, GR5
5	46440	1	RBS84 Cutting edge	18	W302207	1	3/4 NC Flange hex lock nut
6	1037504RP	1	Right mast plate	19	1037593	1	3/4 x 4-3/4 Hitch pin
7	1037503RP	1	Left mast plate	20	4258	2	7/8 Std flat washer
8	1004661RP	1	Sleeve, .812 x 1.25 x 1.75	21	30008	2	7/8 Lock washer
9	33661RP	2	Category 1 mounting pin (Includes lock washer 21 & nut 22)	22	30007	2	7/8 NF Hex nut
				23	1037524	1	1-1/4 NC Nylock hex nut, GR8
				24	1040410	1	Decal set, complete - Rear Blade

HHCS - Hex Head Cap Screw

A/R As Required

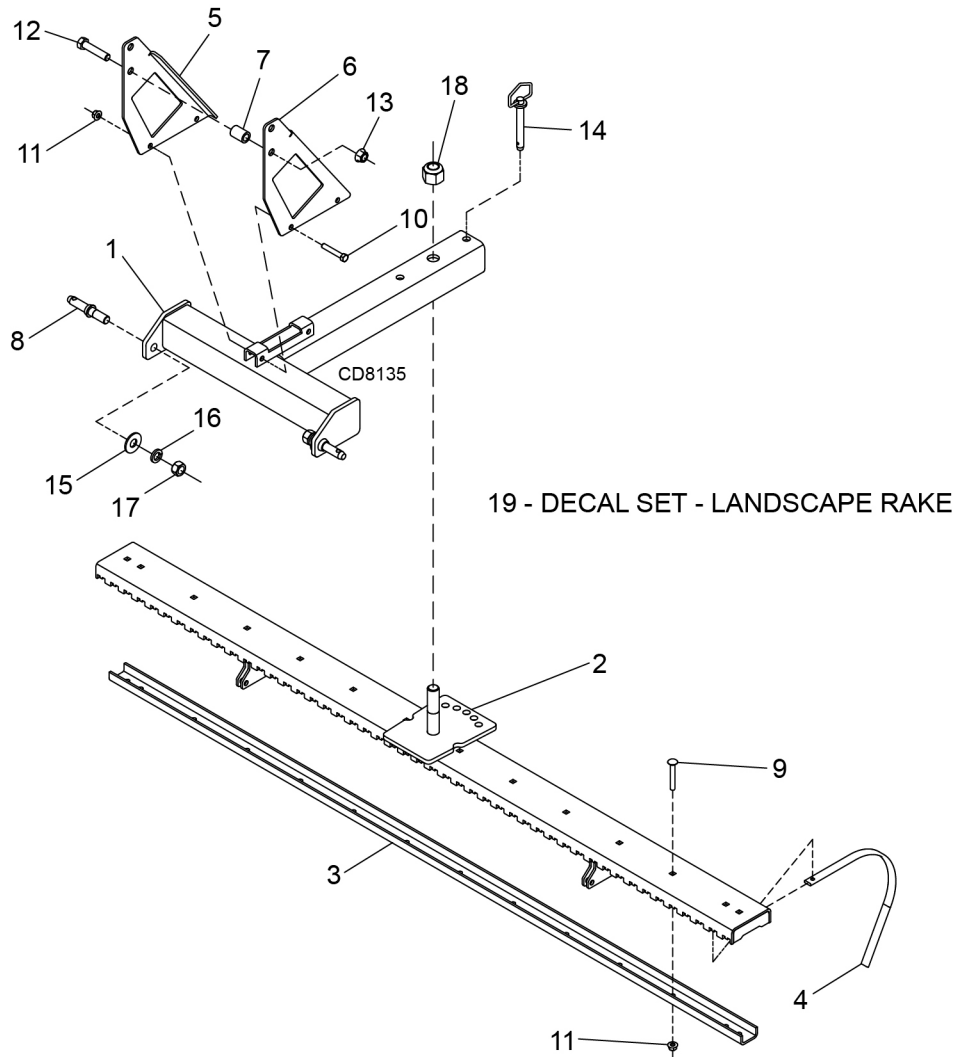
* Standard hardware - obtain locally

26 Parts

(Rev. 12/20/2018)

MAN1047 (Rev. 4/15/2014)

LRS72, LRS84 & LRS96 (PREMIUM) ASSEMBLY



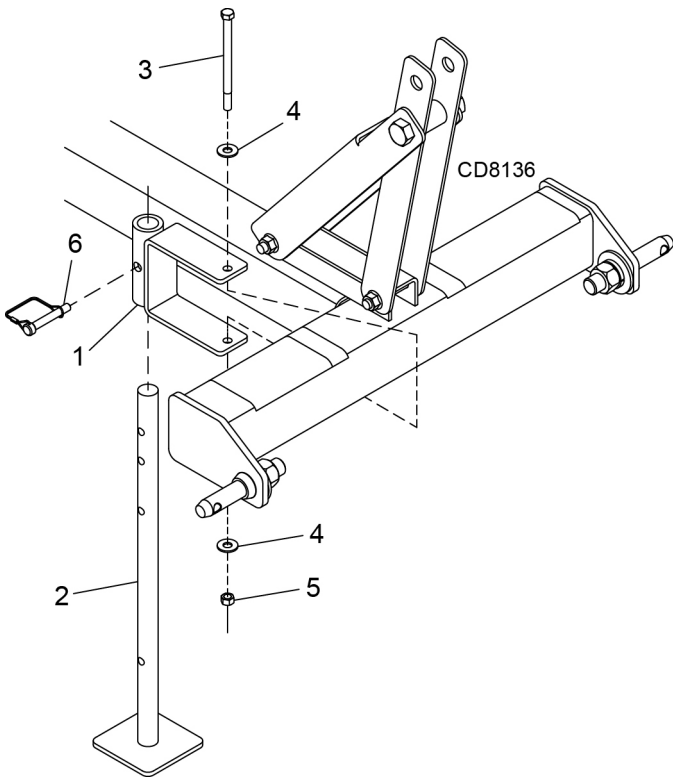
REF	PART	QTY	DESCRIPTION	REF	PART	QTY	DESCRIPTION
1	1043076	1	Hitch frame	9	27635*	A/R	1/2 NC x 3-1/2 Carriage bolt, GR5
2	103753172	1	LRS72 Tine beam -OR-	10	1637*	2	1/2 NC x 3-1/2 HHCS, GR5
2	103753184	1	LRS84 Tine beam -OR-	11	11900*	A/R	1/2 NC Flange hex lock nut
2	103753196	1	LRS96 Tine beam	12	15007	1	3/4 NC x 3-1/2 HHCS, GR5
3	103753772	1	LRS72 Clamp channel -OR-	13	W302207	1	3/4 NC Flange hex lock nut
3	103753784	1	LRS84 Clamp channel -OR-	14	1037593	1	3/4 x 4-3/4 Hitch pin
3	103753796	1	LRS96 Clamp channel	15	4258	2	7/8 Std flat washer
4	10562	A/R	LRS Rake tine	16	30008	2	7/8 Lock washer
5	1037504RP	1	Right mast plate	17	30007	2	7/8 NF hex nut
6	1037503RP	1	Left mast plate	18	1037524	1	1-1/4 NC Nylock hex nut, GR8
7	1004661RP	1	Sleeve, .812 x 1.25 x 1.75	19	1040411	1	Decal set, complete - Landscape Rake
8	33661RP	2	Category 1 mounting pin (Includes lockwasher 21 & nut 22)				

HHCS - Hex Head Cap Screw

A/R As Required

* Standard hardware - obtain locally

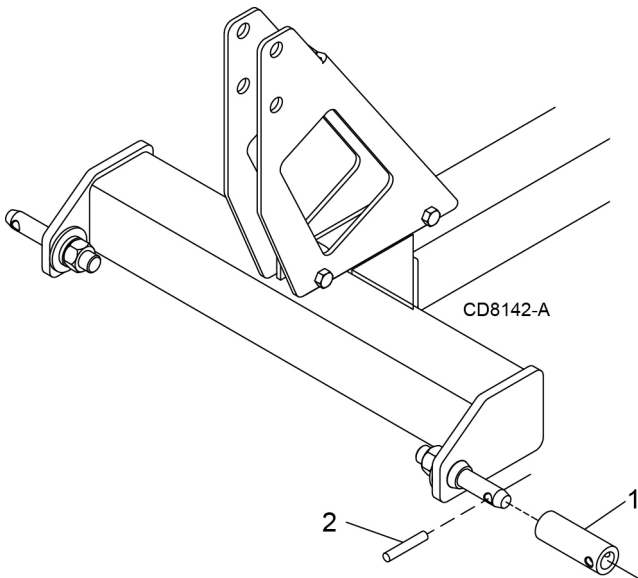
RBS & LRS PARKING STAND (OPTIONAL)



REF	PART	QTY	DESCRIPTION
A	1037480	1	Parking stand kit (For Standard) -OR-
A	1037450	1	Parking stand kit (For Premium)
1	1037481	1	Parking stand mounting bracket (For Standard) -or-
1	1037451	1	Parking stand mounting bracket (For Premium)
2	1021062RP	1	Parking stand
3	13927*	1	3/8 NC x 3-3/4 HHCS, GR5 (Standard)
3	20375*	1	3/8 NC x 4-1/4 HHCS, GR5 (Premium)
4	565*	2	3/8 Std flat washer
5	835*	1	3/8 NC Hex nut
6	33000	1	3/8 x 2-1/4 Lynch pin

* Standard hardware - obtain locally
HHCS - Hex Head Cap Screw

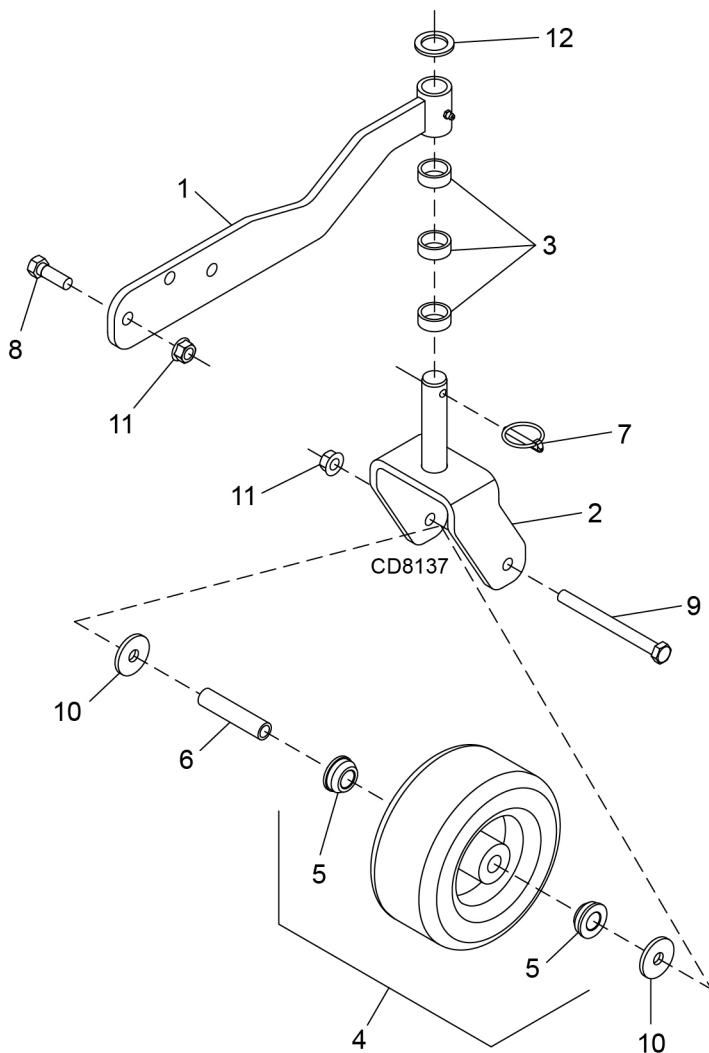
1023725 CATEGORY 1 QUICK HITCH BUSHING KIT (OPTIONAL)



REF	PART	QTY	DESCRIPTION
A	1023725	1	Category 1 quick hitch bushing kit
1	NSS	2	.94 x 1.44 x 4.00 Sleeve
2	NSS	2	7/16 x 1-3/8 Roll pin

NSS - Not Serviced Separately

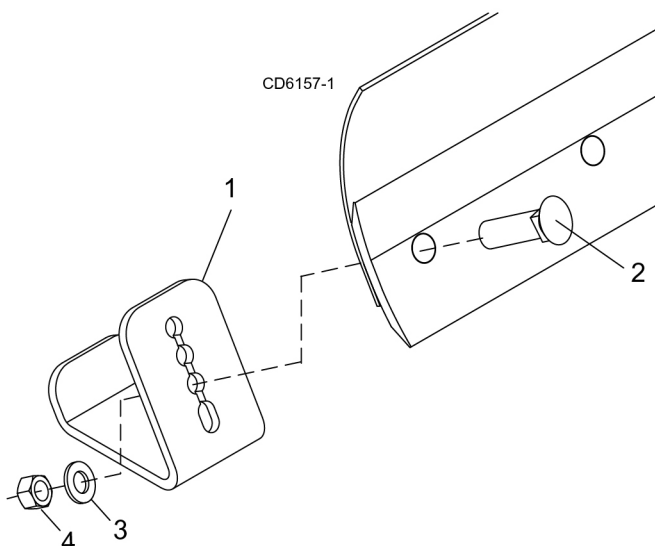
LRS TAIL WHEEL (OPTIONAL)



REF	PART	QTY	DESCRIPTION
A	1037437	1	Tail wheel kit, LRS (Standard)
1	1037434RP	1	Tail wheel arm
2	1037435RP	1	Tail wheel clevis yoke
3	65129	3	Pipe, SCH 40 x .50, Spacer
4	66965	1	Wheel, 7.75 x 3.5 x .75 (Includes bearings item 5)
5	65577	2	Flange bearing, .75 x 1.415
6	29368	1	Sleeve, .50 x .75 x 3.38
7	62043*	1	1/4 x 1-3/4 Klink pin
8	3379*	3	1/2 NC x 1-1/2 HHCS, GR5
9	12305*	1	1/2 NC x 5-1/2 HHCS, GR5
10	63757RP	2	1/2 x 1-3/4 x 7 Ga Flat washer
11	11900*	4	1/2 NC Flange hex lock nut
12	31303	1	1-1/16 x 1-9/16 x 10 Ga Flat washer

* Standard hardware - obtain locally
HHCS - Hex Head Cap Screw

1004646 BASIC SKID SHOE KIT (OPTIONAL)

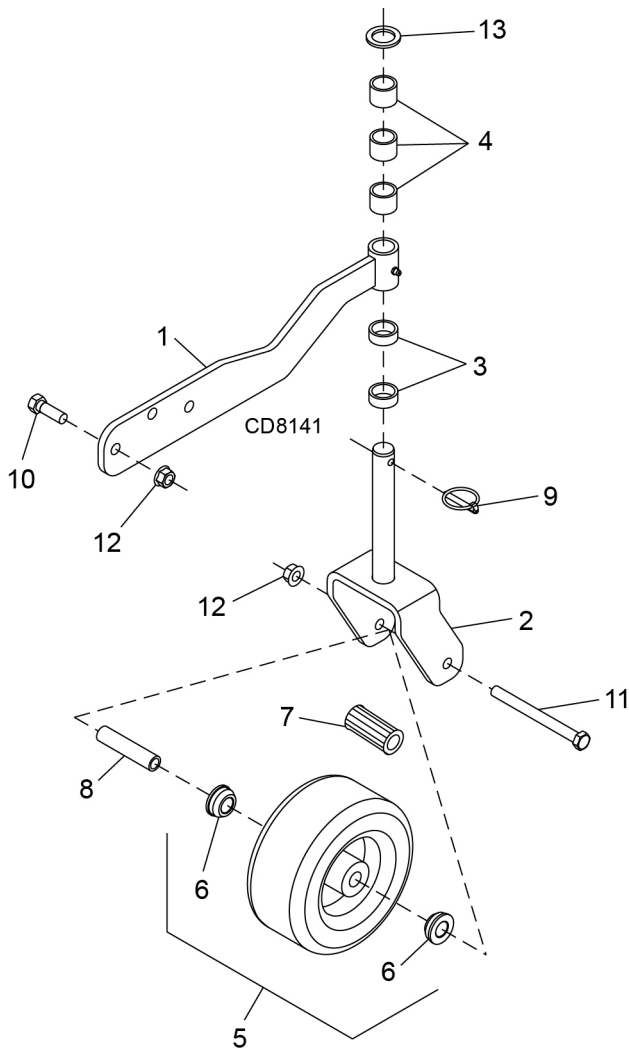


REF	PART	QTY	DESCRIPTION
A	1004646	1	Skid shoe kit (Basic)
1	NSS	1	Skid Shoe
2	25266	1	5/8 NC x 2 Plow bolt
3	57817	1	5/8 Hardened flat washer
4	6239*	1	5/8 NC Hex lock nut

NSS - Not Serviced Separately

* Standard hardware - obtain locally

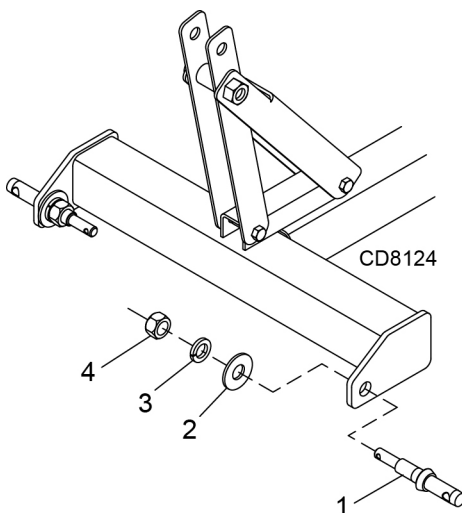
LRS TAIL WHEEL (PREMIUM) (OPTIONAL)



REF	PART	QTY	DESCRIPTION
A	1037589RP	1	Tail wheel kit, LRS (Premium)
1	1037534RP	1	Tail wheel arm
2	1008032RP	1	Tail wheel clevis yoke
3	65129	2	Pipe, SCH 40 x .50, Spacer
4	65130	3	Pipe, SCH 40 x 1.00, Spacer
5	19754	1	Wheel, 10.0 x 3.25 x .75, Pneum (Includes bearings items 6 & 7)
6	65577	2	Flange bearing, .75 x 1.415
7	19756	1	Roller bearing, .75 x 1.38 x 2.5
8	19749	1	Sleeve, .50 x .75 x 4.06
9	62043*	1	1/4 x 1-3/4 Klink pin
10	3379*	3	1/2 NC x 1-1/2 HHCS, GR5
11	12305*	1	1/2 NC x 5-1/2 HHCS, GR5
12	11900*	4	1/2 NC Flange hex lock nut
13	31303	1	1-1/16 x 1-9/16 x 10 Ga Flat washer

* Standard hardware - obtain locally
 Uv c pfcHex Head Cap Screw

1009298 CATEGORY 0 / 1 HITCH PIN KIT (OPTIONAL)



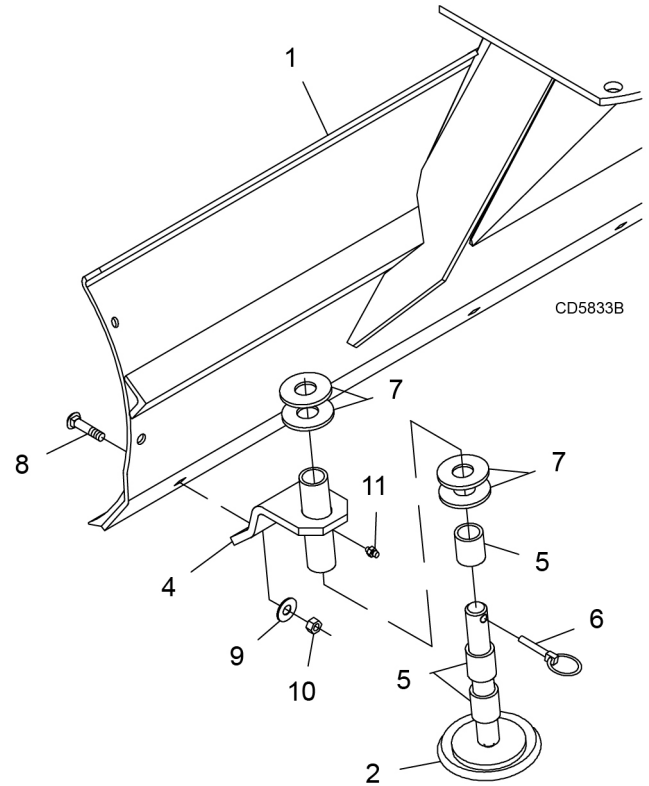
REF	PART	QTY	DESCRIPTION
A	1009298	1	Cat 0/Cat1 Hitch pin kit
1	1004626	2	Hitch pin Cat 0 / 1 (includes 3 and 4)
2	4258		7/8 Flat washer (included with blade/rake)
3	30008	2	7/8 Lock washer
4	30007	2	7/8 MF Hex nut

30 Parts

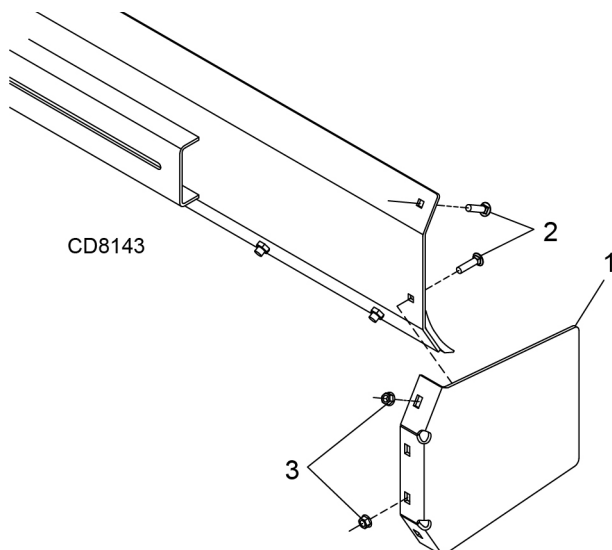
MAN1047 (Rev. 4/15/2014)

18300 PREMIUM SKID SHOE KIT (OPTIONAL)

REF	PART	QTY	DESCRIPTION
A	18300	1	Skid shoe kit (Premium)
1	----	1	Blade assembly
2	27586RP	2	Skid & shaft assembly
3	1005328RP	1	Bracket, skid shoe right (not shown)
4	1005329RP	1	Bracket, skid shoe left
5	52854	6	Sleeve, 1.28 x 1.66 x .75
6	27542	2	Pin, klik 7/16 x 2
7	*	8	Washer, flat 1-1/4 standard
8	26169	2	Bolt, plow 5/8 NC x 2-1/2 GR5
9	*	2	Washer, flat 5/8 standard
10	*	2	5/8 NC Lock nut
11	*	2	Grease fitting, 1/4 -28 tapered thread
	*		Standard hardware; obtain locally



1037348 END PLATE KIT (RBS PREMIUM ONLY) (OPTIONAL)



REF	PART	QTY	DESCRIPTION
A	1037348	1	End plate kit, RBS (Premium)
1	NSS	2	End plate
2	301109*	4	1/2 NC x 1-1/4 Carriage bolt, GR5
3	11900*	4	1/2 NC Flange hex lock nut

NSS - Not Serviced Separately

* Standard hardware - obtain locally

BOLT TORQUE CHART

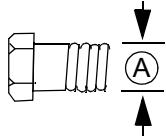
Always tighten hardware to these values unless a different torque value or tightening procedure is listed for a specific application.

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

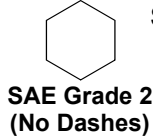
Always use the proper tool for tightening hardware: SAE for SAE hardware and Metric for metric hardware.

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.



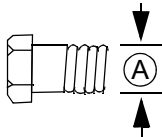
SAE SERIES TORQUE CHART



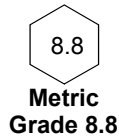
SAE Bolt Head Identification



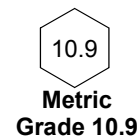
Ⓐ Diameter (Inches)	Wrench Size	MARKING ON HEAD					
		SAE 2		SAE 5		SAE 8	
		lbs-ft	N-m	lbs-ft	N-m	lbs-ft	N-m
1/4"	7/16"	6	8	10	13	14	18
5/16"	1/2"	12	17	19	26	27	37
3/8"	9/16"	23	31	35	47	49	67
7/16"	5/8"	36	48	55	75	78	106
1/2"	3/4"	55	75	85	115	120	163
9/16"	13/16"	78	106	121	164	171	232
5/8"	15/16"	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

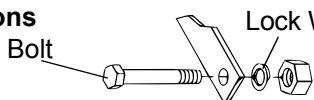


Metric Bolt Head Identification



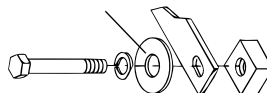
Ⓐ Diameter & Thread Pitch (Millimeters)	Wrench Size	Coarse Thread				Fine Thread				Ⓐ Diameter & Thread Pitch (Millimeters)
		Marking on Head				Marking on Head				
		Metric 8.8		Metric 10.9		Metric 8.8		Metric 10.9		
		N-m	lbs-ft	N-m	lbs-ft	N-m	lbs-ft	N-m	lbs-ft	
6 x 1.0	10 mm	8	6	11	8	8	6	11	8	6 x 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



Lock Washer

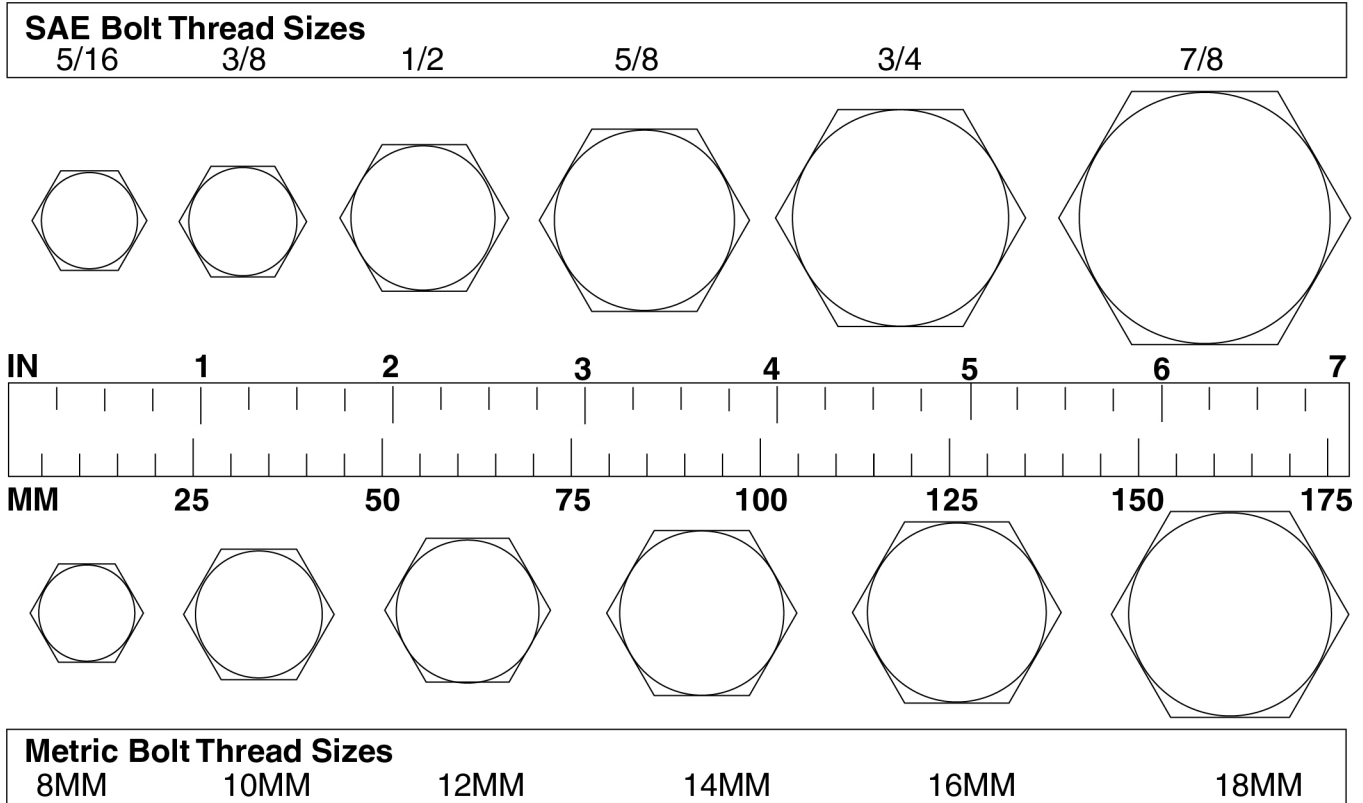
Flat Washer



8/9/00

BOLT SIZE CHART

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



ABBREVIATIONS

<p>AG Agriculture</p> <p>ASABE American Society of Agricultural & Biological Engineers (formerly ASAE)</p> <p>ASAE American Society of Agricultural Engineers</p> <p>ATF Automatic Transmission Fluid</p> <p>BSPP British Standard Pipe Parallel</p> <p>BSPTM British Standard Pipe Tapered Male</p> <p>CV Constant Velocity</p> <p>CCW Counter-Clockwise</p> <p>CW Clockwise</p> <p>F Female</p> <p>FT Full Thread</p> <p>GA Gauge</p> <p>GR (5, etc.) Grade (5, etc.)</p> <p>HHCS Hex Head Cap Screw</p> <p>HT Heat-Treated</p> <p>JIC Joint Industry Council 37° Flare</p> <p>LH Left Hand</p> <p>LT Left</p> <p>m Meter</p> <p>mm Millimeter</p> <p>M Male</p>	<p>MPa Mega Pascal</p> <p>N Newton</p> <p>NC National Coarse</p> <p>NF National Fine</p> <p>NPSM National Pipe Straight Mechanical</p> <p>NPT National Pipe Tapered</p> <p>NPT SWF National Pipe Tapered Swivel Female</p> <p>ORBM O-Ring Boss - Male</p> <p>P Pitch</p> <p>PBY Power-Beyond</p> <p>psi Pounds per Square Inch</p> <p>PTO Power Take Off</p> <p>QD Quick Disconnect</p> <p>RH Right Hand</p> <p>ROPS Roll-Over Protective Structure</p> <p>RPM Revolutions Per Minute</p> <p>RT Right</p> <p>SAE Society of Automotive Engineers</p> <p>UNC Unified Coarse</p> <p>UNF Unified Fine</p> <p>UNS Unified Special</p>
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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	
Gearbox components	BB48X, BB60X, BB72X, BB84X, BB600X, BB720X, BB840X, BB6000X, BB7200X, BB8400X, DS12.50, TS14.60, DS1440, TS1680, DS8.30, DS10.40, DS8.50, DSO8.50, DS10.50, DSO10.50, DBH5.30, DBH6.30	6 years
	BW12, BW15, BW126X, BW180X, BW126XHD, BW180XHD, BW1260X, BW1800X, BW10.50, BW10.50Q, BW15.50, BW15.50Q, BW10.60, BW10.60Q, BW15.60, BW15.60Q, BW10.70, BW10.70Q, BW15.70, BW15.70Q	
	BW240X, BW240XHD, BW1620X, BW2400X	
	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 enlarge this Warranty. Answers to any questions regarding warranty service and locations may be obtained by contacting:

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



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 Zero-Turn Mowers)

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.

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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
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