

**WOODS**

1012606

3-POINT MOUNTING KIT

For Woods BH90-X Backhoe

INSTALLATION MANUAL

MAN0549

(6/30/2006)

**SAVE THIS  
MANUAL!**

Include it with  
your Backhoe Manual.  
It contains safety,  
operation, and repair  
part information not  
found in other  
manuals.

**WOODS**<sup>®</sup>

Tested. Proven. Unbeatable.

## 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 Product Registration included with this manual. The customer must sign the registration which certifies that all Dealer Check List items have been completed. The dealer is to return the prepaid postage portion to Woods, give one copy to the customer, and retain one copy. **Failure to complete and return this card 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](http://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 Parts section for location)** \_\_\_\_\_

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

Throughout this manual, the term **IMPORTANT** 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 Safety-Alert Symbol indicates a hazard and means **ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!**



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



Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed.



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

**IMPORTANT**

Indicates that failure to observe can cause damage to equipment.

**NOTE**

Indicates helpful information.

**WOODS®**

**ALITEC™**  
**BMP®**  
**CENTRAL FABRICATORS®**  
**GANNON®**  
**GILL®**  
**WAIN-ROY®**  
**WOODS®**

## 2 Introduction

SFMK (Rev. 6/6/2005)

# SAFETY RULES



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



## ¡LEA EL INSTRUCTIVO!

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

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

■ This Mounting Kit is to be used only for the backhoes and tractors specified in the Installation section of this manual. Any other use or modification of this mounting kit may result in serious injury or death.

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

■ 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.

## 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](http://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.

■ 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 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.

■ Protective hose sleeves must cover all hydraulic hoses within 20 inches of the operator and be secured onto metal hose fittings. Replace hoses or sleeves if damaged or if protective sleeve cannot be properly positioned or secured.

■ 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.

■ This mounting kit is designed to provide secure mounting and adequate operator clearance when properly installed. Check clearance dimensions shown in Figure 1 to be sure you have installed mounting kit correctly. Follow all mounting instructions in this manual. Do not operate backhoe unless there is adequate clearance. Failure to check and comply with these instructions may result in serious injury or death.

*(Safety Rules continued on next page)*



# SAFETY RULES

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



*(Safety Rules continued from previous page)*

- 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.
- Make sure attachment is properly secured, adjusted, and in good operating condition.
- Remove seat and upper support assembly before installing or removing backhoe from tractor. Failure to comply may result in equipment failure and/or personal injury.
- Always use original equipment high-strength tractor top link pin when attaching mount to tractor.
- If tractor is equipped with draft sensing control, set control to “HEAVY” (minimum sensitivity) position.
- 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, 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.

## OPERATION

- Do not allow bystanders in the area when operating, attaching, removing, assembling, or servicing equipment.
- Before operating, make sure stabilizer pads are lowered firmly to the ground. Stabilizer arms provide support for the backhoe and support for the backhoe mounting brackets.
- Do not operate or transport equipment while under the influence of alcohol or drugs.
- Always comply with all state and local lighting and marking requirements.
- Do not allow riders. Do not lift or carry anybody on the power unit or attachments.
- The only time the backhoe may be operated from a position other than the operator seat is during backhoe attachment and removal. Operator must:

- Read Mounting Kit Manual instructions on attaching and removing backhoe and use extreme care.
- Always stand between rear tire and backhoe stabilizer arms or along side of tractor to avoid being trapped should the boom swing control be accidentally activated.

- Never leave equipment unattended with engine running or with bucket in raised position. Always engage swing and boom transport locks, relieve system pressure by operating controls, and remove ignition key before leaving equipment.

## MAINTENANCE

- Refer to backhoe manual and follow all maintenance safety rules and instructions.
- Do not modify or alter or permit anyone else to modify or alter the equipment or any of its components in any way.
- Your dealer can supply original equipment hydraulic accessories and repair parts. Substitute parts may not meet original equipment specifications and may be dangerous.
- 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.
- Do not allow bystanders in the area when operating, attaching, removing, assembling, or servicing equipment.
- 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.
- Before working on backhoe, extend boom and dipperstick and place bucket on ground. Make sure that all system pressure has been relieved by operating controls before performing maintenance or service or before disconnecting any hydraulic lines.
- 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.

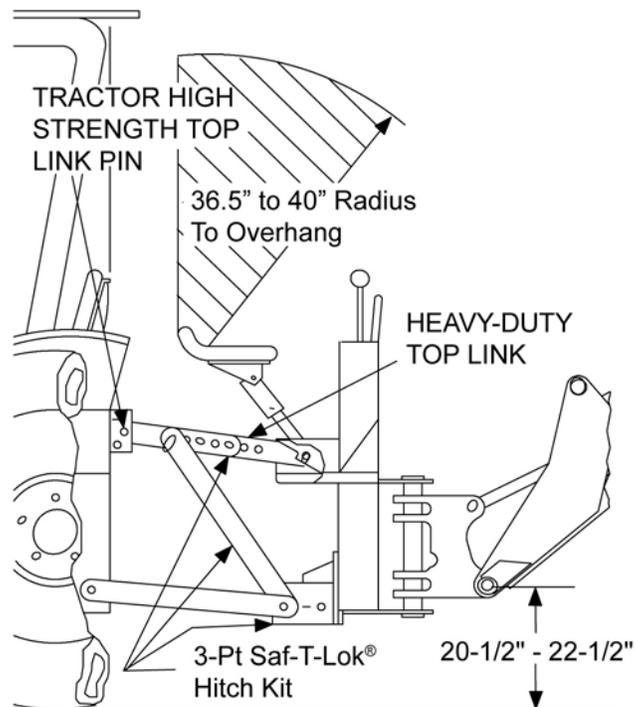
# BACKHOE 3-POINT MOUNT INSTALLATION

## TRACTOR PREPARATION

**NOTE:** For installing this 3-point mounting kit, reference to right, left, forward and rearward directions are determined from the operator's position in the backhoe seat.

**NOTE:** Leave all hardware loose until mounting kit has been fit up.

1. Refer to the WOODS BH90-X Backhoe Operator's Manual for backhoe assembly instructions.
2. Remove the tractor top link and top link storage bracket, if equipped.



\* Operator's seat must be located in the lowest and most forward position to obtain 40" minimum radius.

Figure 1. Seat Clearance

## Attach Rear Brackets to Backhoe

1. Attach rear brackets (4 & 5) to main frame using bolts (6), hardened flat washers (16), and hex nuts (8) as shown in Figure 2.
2. Torque hardware to 297 lbs-ft.

- |     |       |                          |
|-----|-------|--------------------------|
| 4.  | 37682 | Right mount bracket      |
| 5.  | 37683 | Left mount bracket       |
| 6.  | 13759 | 3/4 NC x 2-1/4 HHCS GR5  |
| 8.  | 1450  | 3/4 NC Hex nut           |
| 16. | 57798 | 3/4 Hardened flat washer |

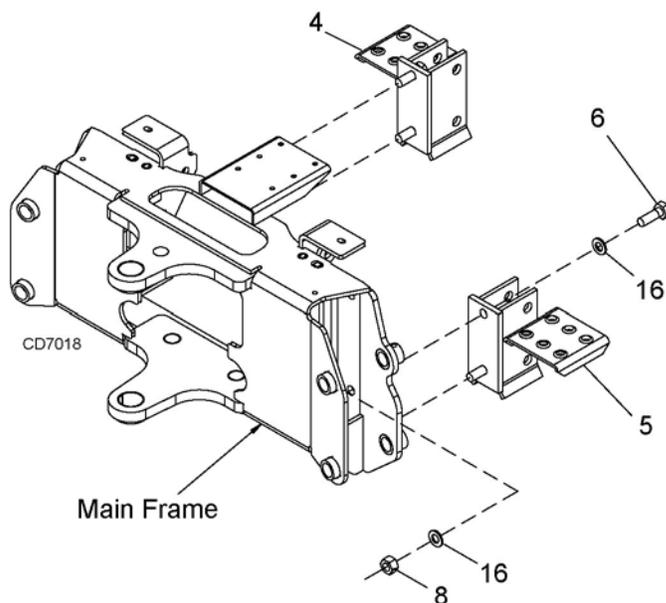


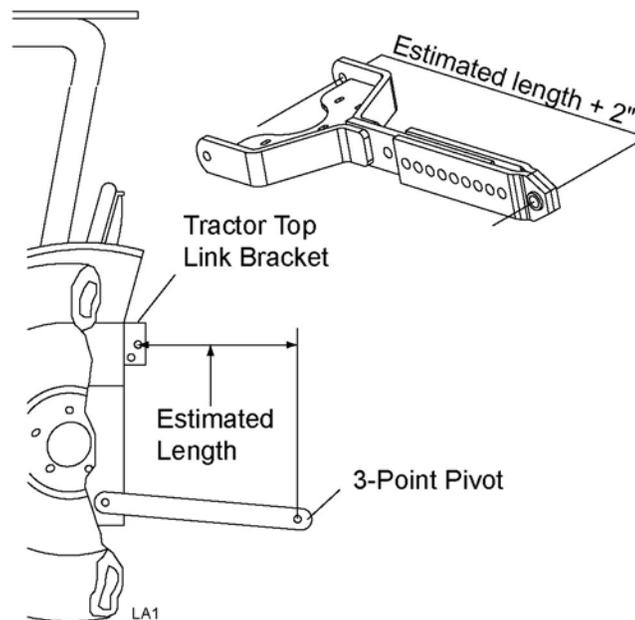
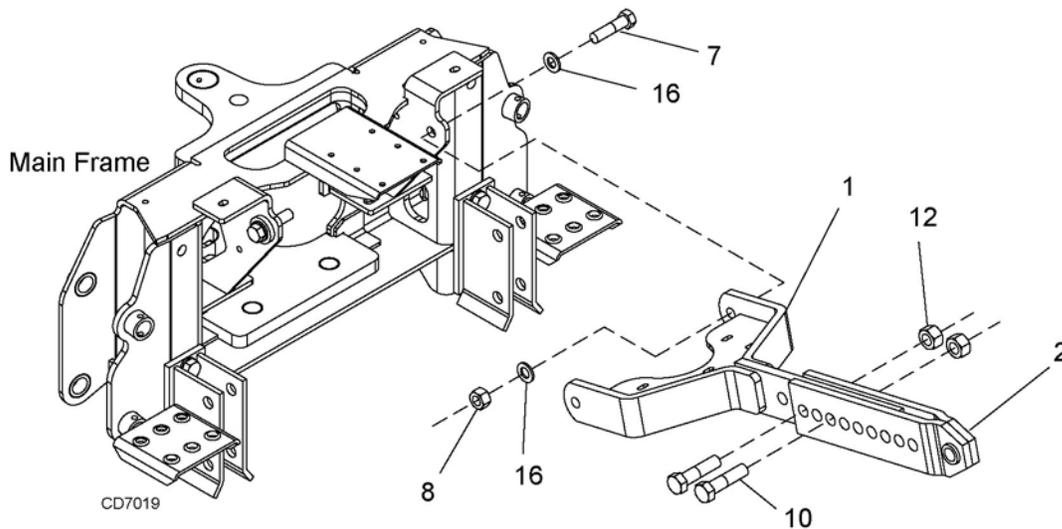
Figure 2. Rear Bracket Installation

## Attach Top Link to Backhoe

1. Attach top link (1) to the main frame using two cap screws (7), four hardened flat washers (16), and two hex nuts (8).
2. Slide double top link (2) over top link (1) and secure using two cap screws (10) and lock nuts (12). See Figure 3.

**NOTE:** To estimate the overall length of the two top link bars; roughly measure from the center of the tractor top link bracket to the center of the lower 3-point lift arm pivot as shown in Figure 3. Final adjustment will be made when backhoe is attached to tractor.

1. 1017875 Top link
2. 37670 Double top link
7. 14334 3/4 NC x 3 HHCS GR5
8. 1450 3/4 NC Hex nut
10. 34157 7/8 NC x 3-1/2 HHCS GR5
12. 34194 7/8 NC Lock nut
16. 57798 3/4 Hardened flat washer

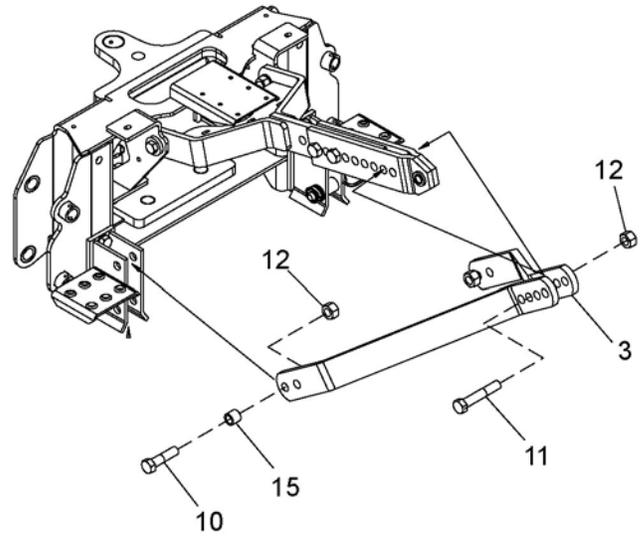


**Figure 3.** Top Link Installation

## Attach Offset Bars to Backhoe

3. Attach offset bars (3) to right and left rear brackets using sleeves (15), cap screws (10), and lock nuts (12). Do not tighten nuts at this time.
4. Swing offset bars up and attach it to the double top link bar using cap screw (11) and lock nut (12). See Figure 4.

- |     |       |                           |
|-----|-------|---------------------------|
| 3.  | 37679 | Offset bar                |
| 10. | 34157 | 7/8 NC x 3-1/2 HHCS GR5   |
| 11. | 34163 | 7/8 NC x 5 HHCS GR5       |
| 12. | 34194 | 7/8 NC Lock nut           |
| 15. | 38696 | Sleeve, .88 x 1.25 x 1.06 |



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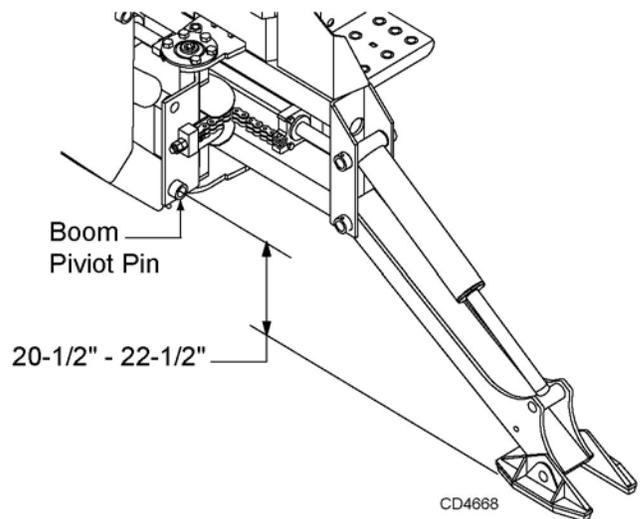
Figure 4. Offset Bar Installation

## Attach Backhoe to Tractor

1. Back tractor up to backhoe and 3-point mount. Center between the tractor rear tires. Position tractor so that the hydraulic system can be connected. Shut off tractor, set brake, and remove key.
2. Attach hydraulic pump to tractor PTO or connect hydraulic hoses.
3. With transmission in neutral, start tractor engine at idle speed and engage PTO or start hydraulic flow.

**NOTE:** Use the backhoe hydraulics to maneuver the 3-point mount into position. Use care in this procedure to avoid being trapped between tractor and backhoe or between backhoe parts.

4. Raise backhoe with stabilizer controls and level backhoe from side to side and front to back. Set ground clearance between 20-1/2 to 22-1/2 inches. Measure from the center of boom pivot pin to the ground. See Figure 5.



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Figure 5. Ground Clearance

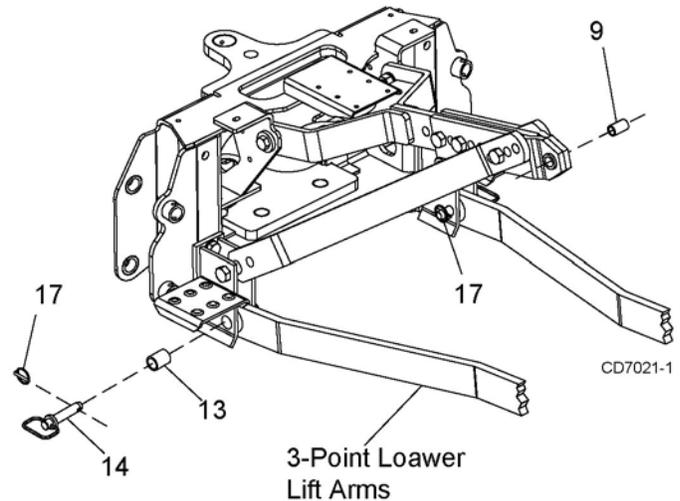
## Attach Backhoe to Tractor (Continued)

- Place tractor 3-point lower lift arms between right and left mounting brackets on the backhoe. Secure into position using hitch pins (14), sleeves (13) if needed, and klik pin (17).
- Connect double top link bar to the tractor top link bracket. Use top link pin supplied with your tractor and sleeve (9). If necessary, separate and adjust top link bars IN or OUT to maintain the backhoe vertical position. See "Tractor Connections" on page 11 for tractor top link specifications.

**NOTE:** Sleeve (9) is for tractors with a 1-inch top link pin.

- Torque all hardware to specifications listed in the

- |     |       |                               |
|-----|-------|-------------------------------|
| 9.  | 30067 | Sleeve, .765 x 1.0 x 1.69     |
| 13. | 34291 | Sleeve, 5/32 x 1-7/16 x 1-7/8 |
| 14. | 37487 | Pin, hitch .88 x 3.0          |
| 17. | 62043 | Klik pin, 1/4 x 1-3/4         |



**Figure 6.** Tractor 3-Point Arm Installed

## Remove Backhoe

### **⚠ DANGER**

■ The only time the backhoe may be operated from a position other than the operator seat is during backhoe attachment and removal. Operator must

- Read Mounting Kit Manual instructions on attaching and removing backhoe and use extreme care.
- Always stand between rear tire and backhoe stabilizer arms or along side of tractor to avoid being trapped should the boom swing control be accidentally activated.

1. Remove the seat assembly.
2. Start the tractor. Engage hydraulics at slow idle speed. Curl the bucket all the way towards the operator.
3. On a hard level surface, center the boom, remove transport lock bar, and extend boom and dipperstick.
4. Rest bucket on the ground and lower stabilizers to take backhoe weight off tractor.
5. Remove high-strength tractor top link pin from top link.
6. Remove lower 3-point arms from backhoe.
7. Place 6" blocks under backhoe mainframe and raise stabilizers to lower the backhoe onto the blocks as shown in Figure 7. Adjust blocks to make backhoe stable.
8. Disengage PTO, turn off engine, set brakes, and remove key before leaving tractor seat.
9. Remove the backhoe hydraulic pump from the PTO shaft or disconnect hydraulic hoses from tractor.
10. Start tractor and drive the tractor away.
11. Reinstall seat assembly.

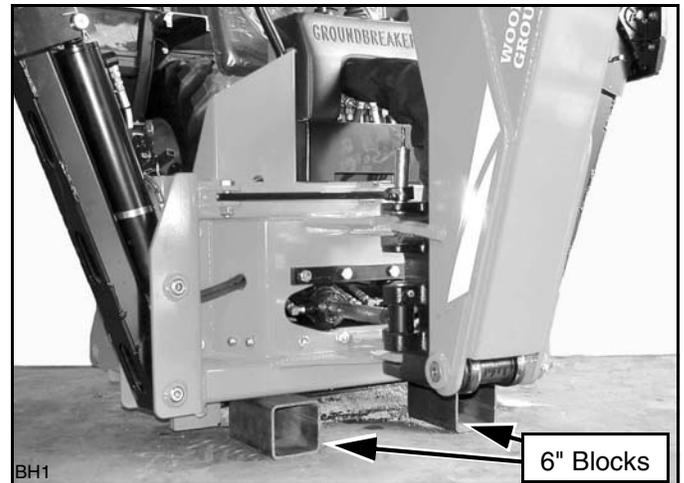


Figure 7. Backhoe Storage Position (Typical)

## Store Hydraulic Pump (If Equipped)

Store pump on back side of backhoe to prevent dirt and debris from accumulating in pump adapter.

## Attach Backhoe to Tractor

### DANGER

■ This mounting kit is designed to provide secure mounting and adequate operator clearance when properly installed. Check clearance dimensions shown in Figure 1 to be sure you have installed mounting kit correctly. Follow all mounting instructions in this manual. Do not operate backhoe unless there is adequate clearance. Failure to check and comply with these instructions may result in serious injury or death.

### WARNING

■ Remove seat and upper support assembly before installing or removing backhoe from tractor. Failure to comply may result in equipment failure and/or personal injury.

1. Back tractor up to backhoe and 3-point mount, center between the tractor rear tires. Position tractor so that the hydraulic system can be connected. Shut off tractor, set brake, remove key.
2. Connect hydraulic pump or hydraulic hose kit.
3. With transmission in neutral, start tractor engine at idle speed and engage PTO or start hydraulic flow.

**NOTE:** Very little engine power is required to power hydraulic system in this mode. Should engine pull down excessively, check plumbing hook-up for reversed lines or a control lever stuck in an operating position.

Use the backhoe hydraulics to maneuver the 3-point mount into position. Use care in this procedure to avoid being trapped between tractor and backhoe or between backhoe parts.

4. Raise the 3-point mount up by lowering stabilizers and boom section until even with tractor 3-point lift arms. Attach tractor 3-point lift arms to right and left rear brackets using hitch pins (14), sleeves (13), and klik pin (17). See page 8.
5. Raise backhoe with stabilizer and boom section to establish ground clearance between 20-1/2 to 22-1/2 inches from boom pivot to ground.
6. Level backhoe from side to side and front to back with stabilizer control. It may not be possible to obtain the ground clearance on small tractors and also maintain minimum head clearance for tractors with ROPS and cabs. Head clearance must take priority.
7. Align 3-point mount top link with tractor top link attachment point using the boom section and stabilizers. Attach top link using only original equipment high-strength tractor top link pin.
8. Reinstall seat.
9. Run at idle for 5 minutes, then check oil level. Add fluid as necessary.
10. Operate all functions through full cylinder stroke to purge air from system. Check oil level again and add fluid as necessary.
11. Raise stabilizers and boom section secure in transport position (see Backhoe Operator's Manual).

**NOTE:** Install swing lock before transporting.

## Tractor Connections

There may be more than one hole provided in tractor top link attachment bracket. Select hole A, B, or C that most evenly distributes the load between top link bracket top and bottom mounting bolts. See Figure 8.

For the Massey Ferguson 1455V tractor use hole position D.

**NOTE:** The maximum width between tractor top link attachment plates must not exceed 2-1/2 inches. This will prevent excessive bending loads to the tractor top link pin.

For tractors with draft control, select hole closest to supporting point of floating link. Block or lock draft control so it is inoperative. Lower manual 3-point lift control to the lowest position to deactivate draft sensing control (refer to tractor manual).

1. Original equipment high-strength tractor top link
2. Safety pin
3. Backhoe top link
4. Saf-T-Lok

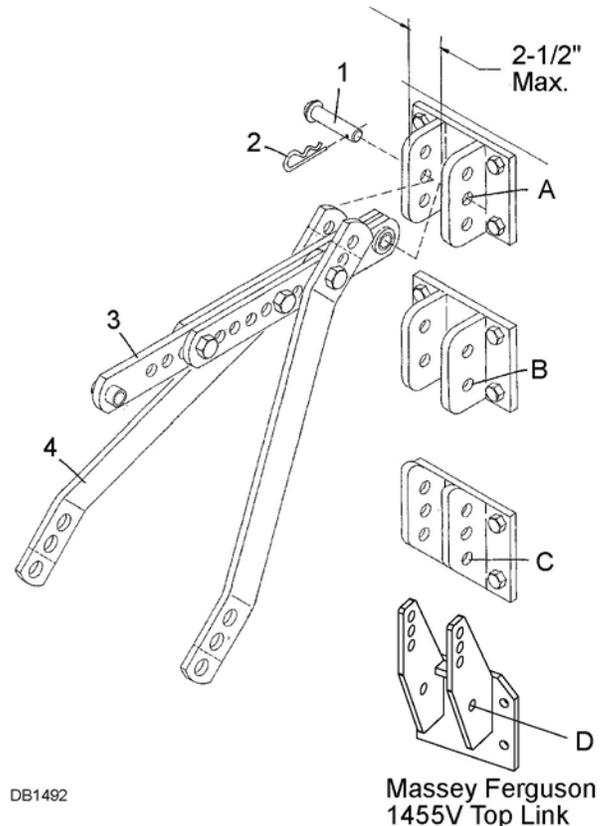


Figure 8. Tractor Top Link Connections

## Seat Installation and Adjustment

Install seat and upper seat support.

The seat may be adjusted fore, aft, up, and down for operator comfort.

Moving the seat down also moves it forward; moving it up also moves it rearward. The fore and aft adjustment may be used with the up and down adjustment to obtain desired position.

Never operate backhoe unless manufacturer's 3-point hitch Saf-T-Lok limiter or sub-frame has been installed and adjusted. Operator's area (shown shaded in Figure 9) must be free from obstructions in a 36.5" to 40" radius from the seat.

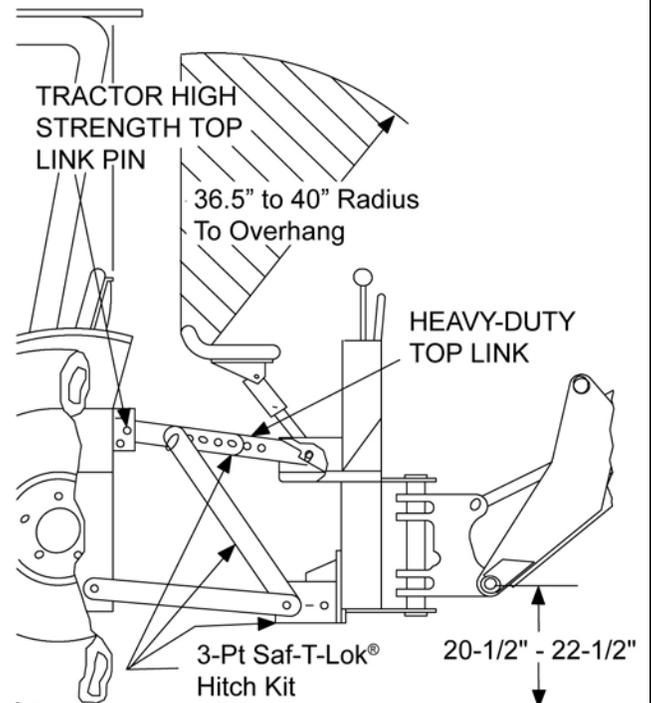
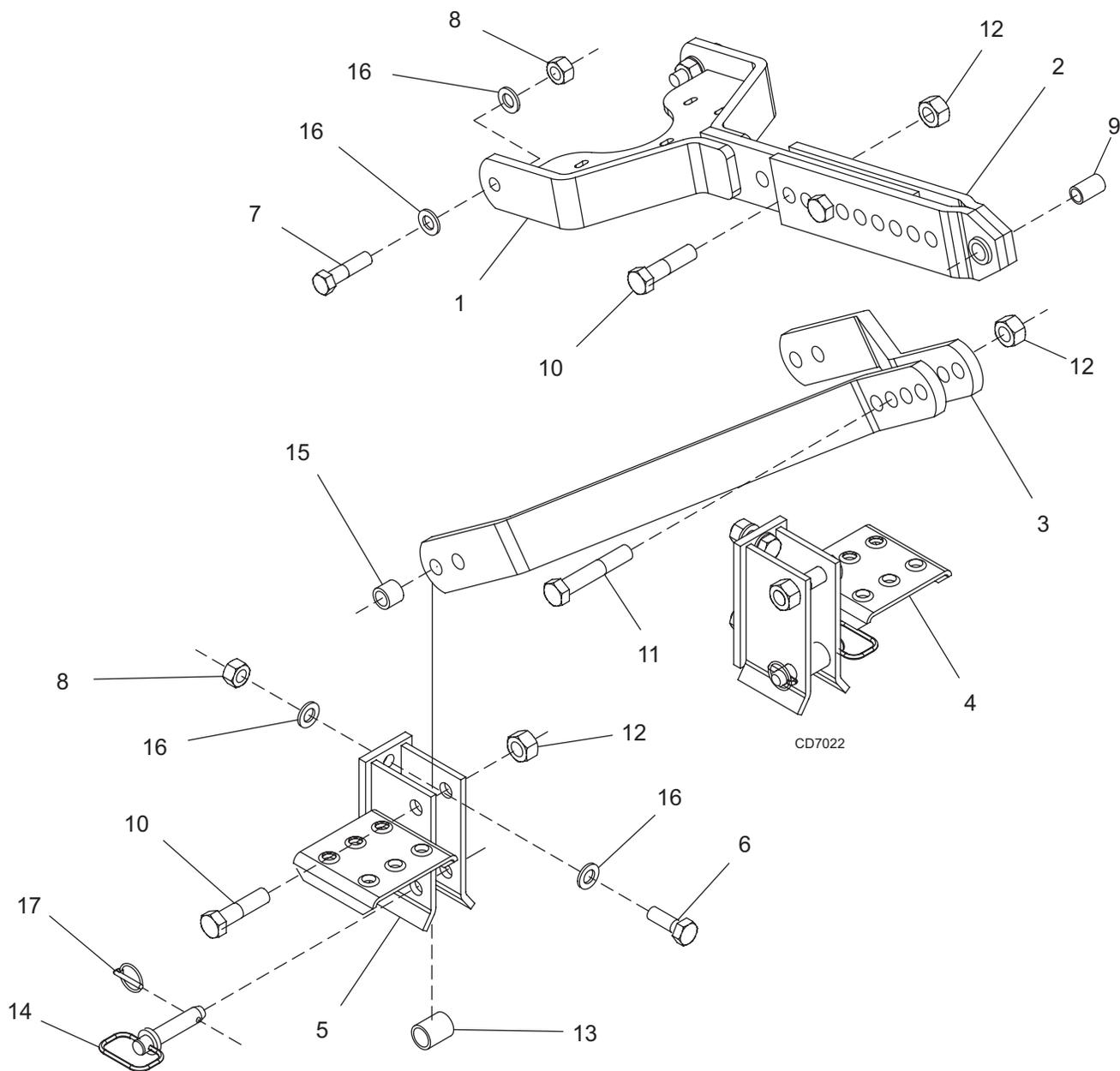


Figure 9. Seat Clearance

# 1012606 3-POINT MOUNTING KIT



REF	PART	QTY	DESCRIPTION	REF	PART	QTY	DESCRIPTION
1	1017875	1	Top link	11	34163 *	1	7/8 NC x 5 HHCS GR5
2	37670	1	Double top link (upper)	12	34194 *	5	7/8 NC Lock nut
3	37679	2	Offset links, .75 x 3 x 32.23 x 12.95	13	34291	2	Sleeve, 5/32 x 1-7/16 x 1-7/8
4	37682	1	Right mounting bracket	14	37487	2	Hitch pin, .88 x 3.0
5	37683	1	Left mounting bracket	15	38696	2	Sleeve, .88 x 1.25 x 1.06
6	13759 *	4	3/4 NC x 2-1/4 HHCS GR5	16	57798	12	3/4 Hardened flat washer
7	14334 *	2	3/4 NC x 3 HHCS GR5	17	62043	2	Klik pin, 1/4 x 1-3/4
8	1450 *	6	3/4 NC Hex nut				
9	30067	1	Sleeve, .765 x 1.0 x 1.69				HHCS, Hex Head Cap Screw
10	34157 *	4	7/8 NC x 3-1/2 HHCS GR5				* Standard Hardware, obtain locally

**12 Parts**

MAN0549 (6/30/2006)

# BOLT TORQUE CHART

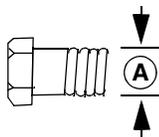
Always tighten hardware to these values unless a different torque value or tightening procedure is listed for a specific application.

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

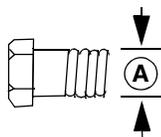


SAE Grade 5  
(3 Radial Dashes)



SAE Grade 8  
(6 Radial Dashes)

Ⓐ 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



Metric  
Grade 10.9

Ⓐ Diameter & Thread Pitch (Millimeters)	Wrench Size	COARSE THREAD				FINE THREAD				Ⓐ Diameter & Thread Pitch (Millimeters)
		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

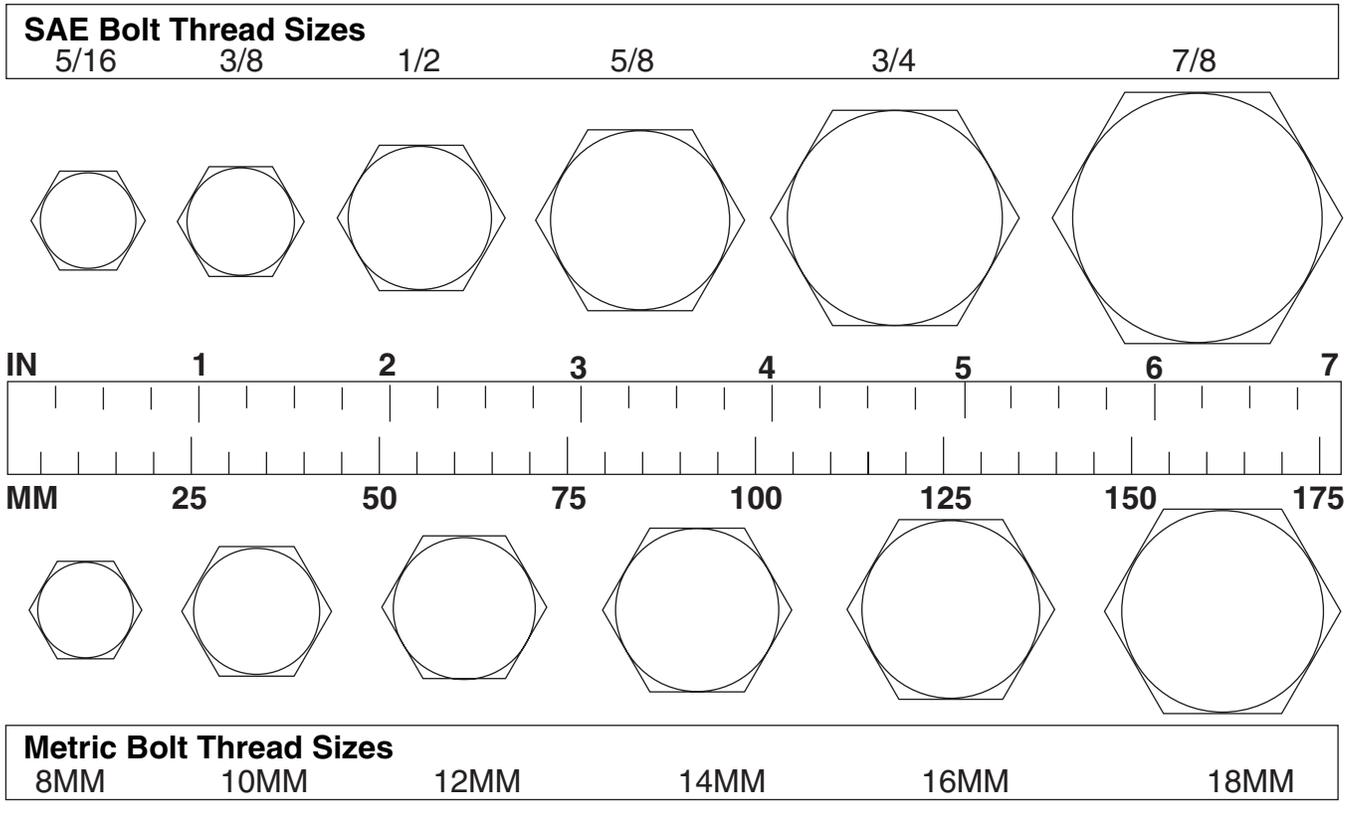
Flat Washer

Bolt

8/9/00

# BOLT SIZE CHART

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



## ABBREVIATIONS

AG ..... Agriculture  
 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  
 GA ..... Gauge  
 GR (5, etc.) ..... Grade (5, etc.)  
 HHCS ..... Hex Head Cap Screw  
 HT ..... Heat-Treated  
 JIC ..... Joint Industry Council 37° Degree Flare  
 LH ..... Left Hand  
 LT ..... Left  
 m ..... Meter  
 mm ..... Millimeter  
 M ..... Male  
 MPa ..... 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  
 P ..... Pitch  
 PBY ..... Power-Beyond  
 psi ..... Pounds per Square Inch  
 PTO ..... 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 and Woods Boundary™ Utility Vehicles)

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.

The warranty periods for certain gearboxes and blade spindles are listed below:

Model No.	Part Warranted	Duration
PHD25, PHD35, PHD65, PHD95, 1260, 2162, 3240, BB48, BB60, BB72, BB84, BB600, BB720, BB840, BB6000, BB7200, BB8400, BW180-2, BW1800, DS96, DS120, RCC42, RM550-2, RM660-2, RM990-3, PRD6000, PRD7200, PRD8400, 7144RD-2, 9180RD-2, 9204RD-2, S15CD, S20CD, S22CD, S25CD, S27CD	Gearbox components	5 years from the date of delivery to the original purchaser.
RDC54, RD60, RD72	Gearbox components	3 years from the date of delivery to the original purchaser.
RDC54, RD60, RD72	Gearbox components	1 year from the date of delivery to the original purchaser if used in rental or commercial applications.
RM550-2, RM660-2, RM990-3, PRD6000, PRD7200, PRD8400, 7144RD-2, 9180RD-2, 9204RD-2	Blade spindles	3 years from the date of delivery to the original purchaser.

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:

## Woods Equipment Company

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

800-319-6637 tel  
800-399-6637 fax  
www.WoodsEquipment.com



ALITEC™

BMP®

CENTRAL FABRICATORS®

GANNON®

GILL®

WAIN-ROY®

WOODS®



## 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.

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

**WOODS®**

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