

**MAN0983**

(Rev. 8/21/2012)

**SAVE THIS  
MANUAL!**

Include it with the  
backhoe manual. It  
contains safety,  
operation, and repair  
part information not  
found in other  
manuals.

**WOODS**

1034785

4-POINT SUB-FRAME MOUNTING KIT

**for Backhoe Models  
BH70-X, BH80-X**

**on Kubota® Tractors  
B3000**

**with Kubota® Loader  
LA403**

**includes Hose Kit  
1034794**

**WOODS®**

Woods Equipment Company

**INSTALLATION 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. Please contact your dealer to complete this form. 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](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 **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™**

**BMP®**

**CENTRAL FABRICATORS®**

**GANNON®**

**GILL®**

**WAIN-ROY®**

**WOODS®**

**WOODS®**

## 2 Introduction

SFMK (Rev. 12/5/2011)

# 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.

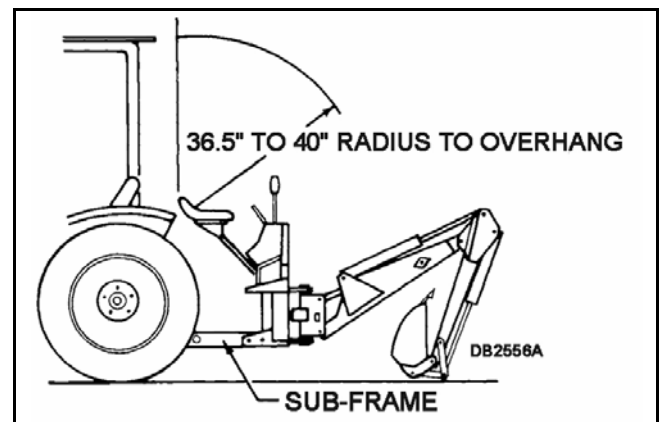
In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, judgement, and proper training of personnel involved in the operation, transport, maintenance, and storage of equipment.

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

- **This Sub-Frame Mounting Kit is only for the backhoes and tractors specified in the Sub-Frame Mount 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.**
- **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.**
- **To prevent contamination during maintenance and storage, clean and then cover hose ends, fittings, and hydraulic ports with tape.**

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

- **This mounting kit is designed to provide secure mounting and adequate operator clearance for most operators when properly installed. Check clearance dimensions shown below to be sure you have installed seat bracket correctly. In some cases it may be necessary to adjust the seat to the lowest position and/or as far forward as possible in order to achieve the ideal 40-inch clearance. For 36.5-inch radius operation, taller operators may need to wear a hardhat for greater comfort and safety.**



- **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.**

*(Safety Rules continued on next page)*

# SAFETY RULES



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



*(Safety Rules continued from previous page)*

- 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.
- 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 system in “locked up” position at all times.
- Remove seat and upper support assembly before installing or removing backhoe from power unit. Failure to comply may result in equipment failure and/or personal injury.
- Make sure attachment is properly secured, adjusted, and in good operating condition.
- 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. Weigh the tractor and equipment. Do not estimate.
- Do not install backhoe and required counterweights on tractor if the total tractor and equipment weight then exceeds the ROPS weight certification of the tractor. To reduce overall weight of unit, remove liquid from rear tires and remove mid-mount mower, if equipped.

■ 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.

■ 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.

■ 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 Parts section for location.)



# BACKHOE SUB-FRAME INSTALLATION

## Tractor Preparation



■ Only use 1034785 4-Point Sub-Frame Mounting Kit for mounting Woods BH70-X, BH80-X on Kubota® B3000, Cab, FWA tractors, equipped with Kubota® LA403 loader. Any other use or modification of this mounting kit may result in serious injury or death.

For installing this sub-frame, references to right, left, forward and rearward directions are determined from the operator's position in the tractor seat.

Leave all hardware loose until sub-frame has been completely installed or otherwise specified in the instructions.

Do not install 1034785 4-point sub-frame on tractor without a Kubota loader attached.

Remove tractor top link. Store for later use when backhoe is removed from tractor.

Place jackstands under rear axle and remove both right and left rear tires.

## Positioning 3-Point Hitch

1. Lower 3-point hitch to the lowest position.
2. Loosen screw and position control lever-stop to prevent accidental raising of the hitch arms.

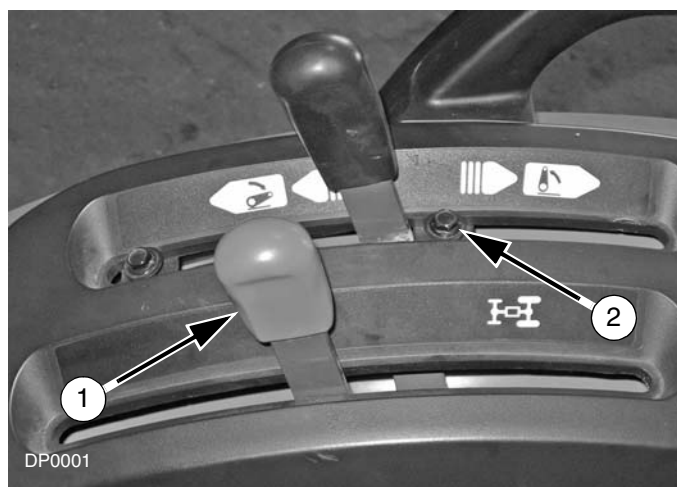


Figure 1. 3-Point Hitch Position



Figure 2. Lower 3-Point Lift Arms

## Nord-Lock® Washer

The Nord-Lock® washer is a unique bolt securing system that uses tension rather than friction. When the bolt and/ or nut is tightened, the teeth grip and seat the mating surfaces. The wedge locking effect created makes the bolt self-locking.

The advantage to the Nord-Lock washer is that it achieves maximum security when locking fasteners. These washers resist loosening caused by vibration or dynamic loads. They are easy to install and remove and provide positive locking at low and high preload levels. They are reusable if lubricated before reuse.

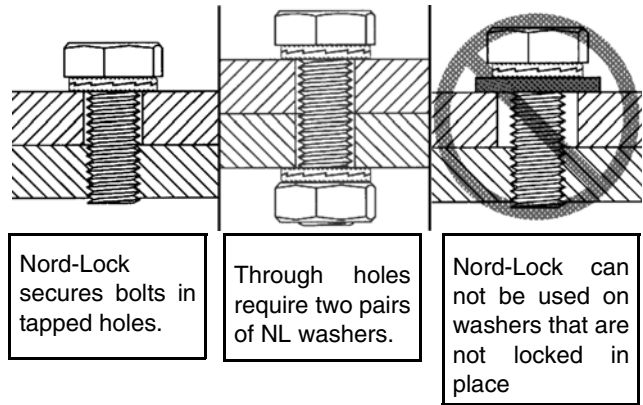


Figure 3. Nord-Lock Washer

## Install ROPS Brackets

1. Attach right ROPS bracket (5) to the tractor using three hex flange screws (46).
2. Repeat steps to install left ROPS bracket.

- 5. 1031734 Right ROPS bracket
- 5. 1031734 Left ROPS bracket (not shown)
- 24. 1028717 M16 x 1.50 x 45 mm HFS CL10.9

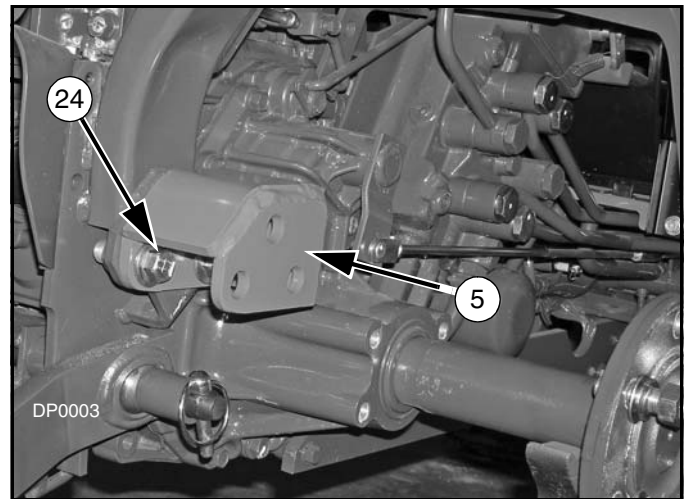


Figure 4. Right ROPS Bracket Installed

## Install Front Weights

1. Attach front weights (10) to the front bumper using cap screws (15), hardened flat washers (18) and hex nuts (19) provided.
2. Add weight until a minimum of 20% of weight is on the front axle when backhoe and loader are installed.
3. Weight placement will vary based on the loader and tractor arrangement.

- 10. 1031741 Front Weight
- 15. 1637 1/2NC x 3-1/2 HHCS
- 18. 57816 1/2 Flat Hardened Washer
- 19. 1093 1/2 Hex Nut

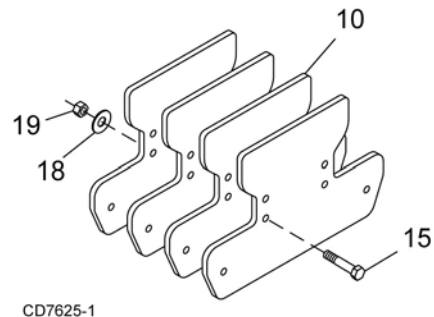
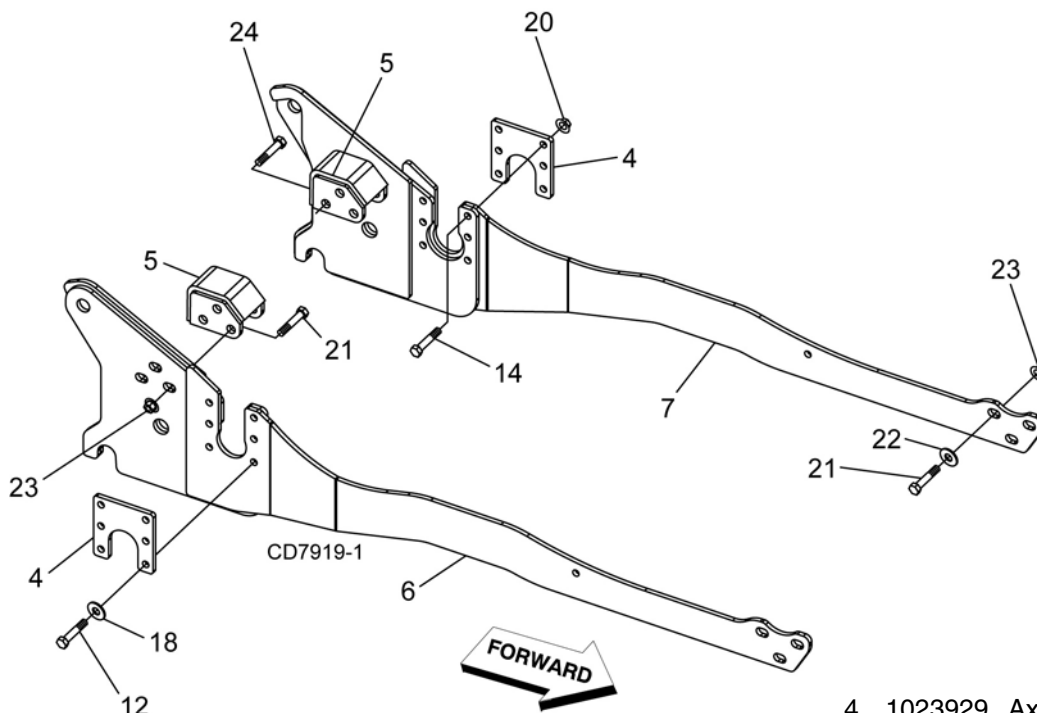


Figure 5. Front Weight Assembly



## Install Tractor Brackets to Kubota LA403

1. Place right tractor bracket (6) around rear axle housing.
2. Secure bracket to ROPS bracket (5) using hex flange screws (21), and hex flange nuts (23).
3. Attach right tractor bracket (6) to the outside of the right loader mount using hex flange screws (21), hardened flat washers (22), and hex flange nuts (23). Left side mounting bracket (7) shows proper mounting of tractor bracket to the loader mount.
4. Place axle bracket (4) over axle and align holes. Secure into position using four hex flange screws (12) and Nord-Lock washers (18) in the lower four holes. Use two cap screws (14), and two hex flange nuts (20) in the upper two holes.
5. Repeat steps to install left tractor bracket (7).



- |     |         |                             |
|-----|---------|-----------------------------|
| 4.  | 1023929 | Axle Bracket                |
| 5.  | 1031734 | ROPS Bracket                |
| 6.  | 1034786 | Right Tractor Bracket       |
| 7.  | 1034787 | Left Tractor Bracket        |
| 12. | 1026941 | M12 1.75P X 60 CL10.9       |
| 14. | 1028902 | 1/2 NC X 1-3/4 GR8          |
| 18. | 1012568 | 1/2 Nordlock Washer         |
| 20. | 1028903 | 1/2 NC GR8                  |
| 21. | 19024   | 5/8 NC X 1-3/4 GR5          |
| 22. | 58337   | 5/8 Hardened Flat Washer    |
| 23. | 19025   | 5/8 NC Flange Head Lock Nut |

**Figure 6.** Right Tractor Bracket Installation - LA403 Loader Mount

## Torque Backhoe Bracket Hardware

1. Torque hardware around right rear axle.
2. Torque right backhoe attach bracket hardware at loader mount.
3. Repeat steps for left side of tractor following same bolt sequence.

### TORQUE SPECIFICATIONS

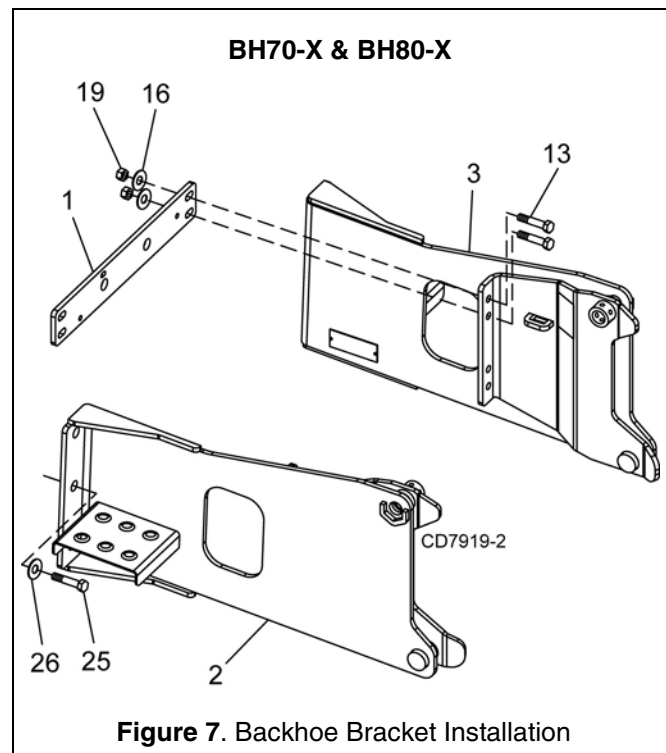
Ref	Cap Screw	Qty	Wrench Size	Required Torque
14	1/2 NC x 1-3/4	4	3/4"	85 lbs-ft (115 N-m)
12	M12 x 1.75P x 60 mm CL10.9	8	18 mm	70 lbs-ft (94 N-m)
21	5/8 NC x 1-3/4	12	15/16"	170 lbs-ft (230 N-m)

## Attach Backhoe Brackets BH70-X & BH80-X (Figure 7)

**NOTE:** Leave all hardware loose until backhoe has been mounted to the tractor.

1. Attach right backhoe bracket (2) and left backhoe bracket (3) to backhoe frame.
2. Secure into position using six (three per bracket) cap screws (25) and hardened flat washers (26).
3. Place crossbrace (1) between right and left backhoe brackets. Secure using four cap screws (13), flat washers (16), and hex nuts (19).

- 1. 1009810 Cross Member
- 2. 1034814 Right backhoe bracket
- 3. 1034815 Left backhoe bracket
- 13. 3379 1/2 NC x 1-1/2 HHCS GR5
- 16. 854 1/2 Flat washer
- 19. 1093 1/2 NC Hex Nut
- 25. 735 3/4 NC x 2 HHCS GR5
- 26. 1006371 3/4 Hardened Flat Washer, Extra Thick



**Figure 7.** Backhoe Bracket Installation

As a valued customer, Woods appreciates your comments. Once sub-frame and hydraulic hoses have been installed, please take a few minutes to complete the Sub-Frame Mount Evaluation sheet that was supplied with your sub-frame. Your comments will help us continue to bring you quality products.



# 1034794 HOSE KIT INSTALLATION FOR BH70-X, BH80-X

## WARNING

- Keep hands and body away from pressurized lines. Use paper or cardboard, not hands or other body parts to check for leaks. Wear safety goggles. Hydraulic fluid under pressure can easily penetrate skin and will cause serious injury or death.
- Make sure that all operating and service personnel know that if hydraulic fluid penetrates skin, it must be surgically removed as soon as possible by a doctor familiar with this form of injury or gangrene, serious injury, or death will result. CONTACT A PHYSICIAN IMMEDIATELY IF FLUID ENTERS SKIN OR EYES. DO NOT DELAY.

## WARNING

- 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.

### Install Bulkhead Adapter and Bracket

1. Attach bulkhead adapter bracket (9) and back plate (10) to the right ROPS frame using four cap screws (11), eight flat washers (14), lock washers (12), and hex nuts (13). Position bracket approximately 1 inch below the serial tag on the ROPS. Place bulkhead adapter bracket on the outside of ROPS. See Figure 8.
2. Install bulkhead adapters (1) to the bulkhead adapter bracket (9). Secure using nut supplied with bulkhead adapter.
3. Attach female quick coupler (3) to the top bulkhead adapter.

- |     |         |  |
|-----|---------|--|
| 1.  | 1006144 | Adapter, bulkhead<br>3/8 NPTM x 3/4 JICM |
| 3.  | 64299   | Quick coupler, female                    |
| 9.  | 1014460 | Bracket, bulkhead adapter                |
| 10. | 1014474 | Back plate                               |
| 11. | 7747    | 3/8 NC x 3 HHCS GR5                      |
| 12. | 838     | 3/8 Lock washer                          |
| 13. | 835     | 3/8 NC Hex nut                           |
| 14. | 565     | 3/8 Flat washer                          |

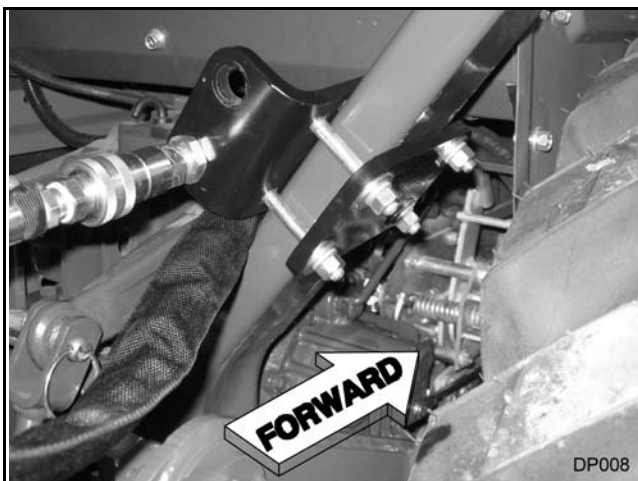


Figure 8. Bulkhead Adapter Bracket Installed

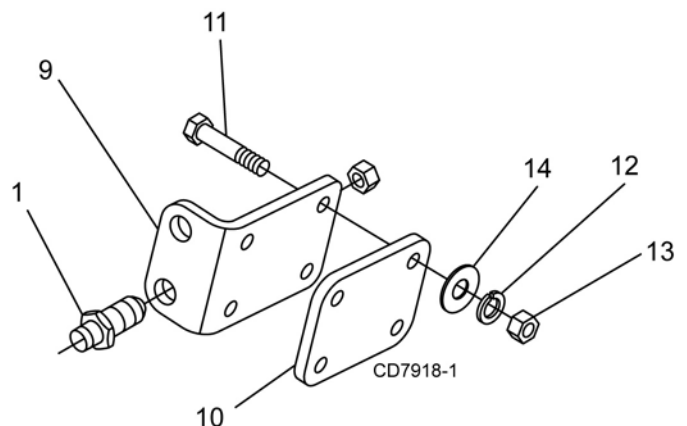


Figure 9. Bulkhead Adapter Bracket Installation

## 1034794 Hose Kit

### Connect Hydraulic Hoses to Tractor

1. Remove the PBY hose (inside hose) that is between the loader control valve and the hydraulic block on the right side of the tractor. See Figure 10.
2. Attach one end of hose (6) to the PBY port on the loader control valve.
3. Route hose(6) along underside of right tractor bracket and out the backside of tractor.
4. Attach connector (8) and male Quick Coupler to end of hose (6).
5. Attach hose (15) to the PBY port on the hydraulic block. Route hose (15) along underside of right tractor bracket and connect to bulkhead adapter (1) with female Quick Coupler (3) on bulkhead bracket (9).
6. Insert cable tie (16) and secure hose to tractor rail as needed. Cable tie is supplied in kit.
7. Install both rear tires on tractor at this time.

1. 1006144 Adapter, bulkhead  
3/8 NPTM x 3/4 JICM
3. 64299 Quick coupler, female
4. 64300 Quick coupler, male
6. 1023494 Hose, 105" x 9/16 JICF x 3/4 JICF
7. 313017 Elbow, 3/8 NPTM x 3/8 NPTF 90°
8. 315037 Adapter, 3/8 NPTM x 3/4 JICM
15. 1034795 Hose, 74" x 9/16 JICF x 3/4 JICF
16. 89 Cable tie (not shown)

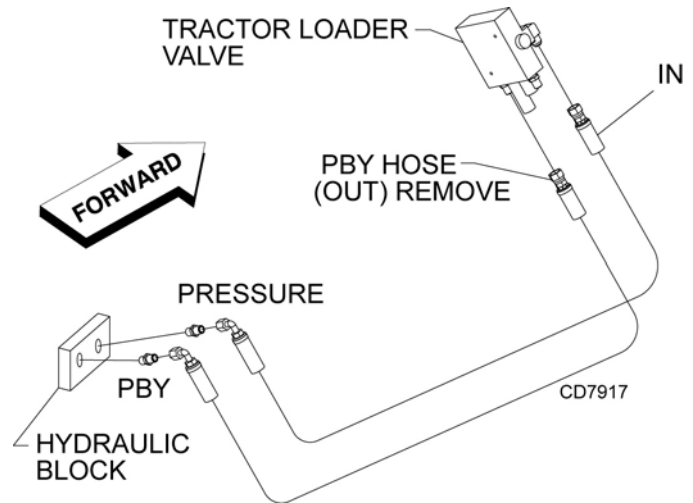


Figure 10. Remove Control Valve PBY Hose

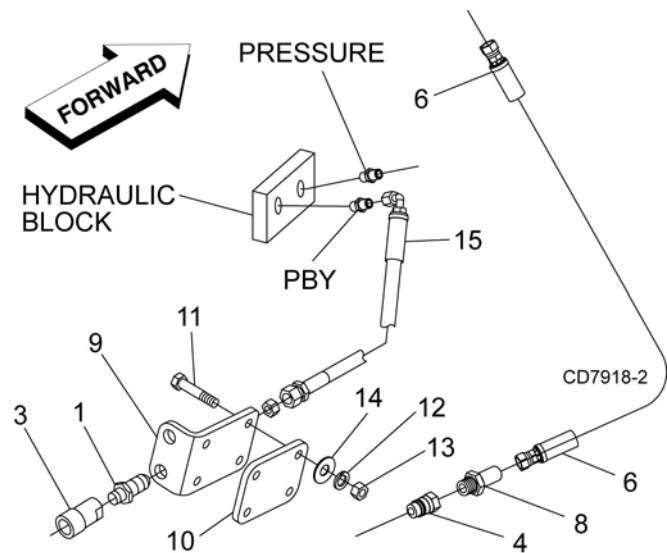


Figure 11. Hydraulic Hose Installation - Tractor

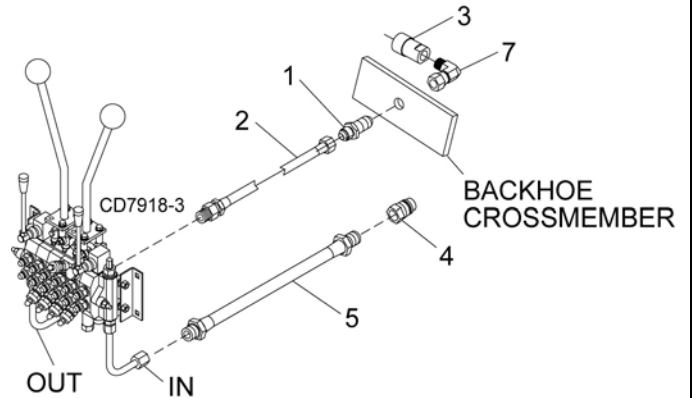


Figure 12 Remote Control Valve Hoses

## 1034794 Hose Kit

### Install Hoses to Backhoe Valve

1. Attach hose (5) to the IN port on the backhoe valve.
2. Attach male quick coupler (4) to end of hose (5).
3. Attach hose (2) to the out port on backhoe valve.
4. Attach bulkhead adapter (1) to backhoe crossmember.
5. Attach elbow (7) and female quick coupler (3) to bulkhead adapter (1). (Face up)
6. Attach hose (2) to bulkhead adapter (1).

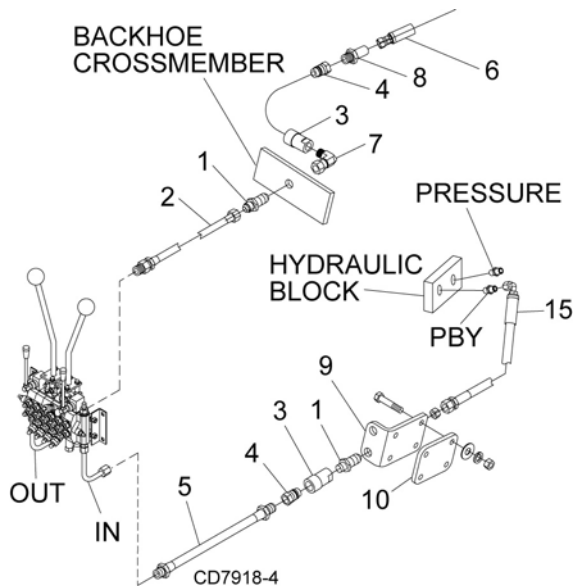


**Figure 13.** Backhoe Hose Connection

1. 1006144 Adapter, bulkhead  
3/8 NPTM x 3/4 JICM
2. 1006902 Hose, 22" x 3/4 JICF x 3/4 ORBM
3. 64299 Quick coupler, female
4. 64300 Quick coupler, male
5. 1010924 Hose, 40 x 3/8 NPTM x 3/4 ORBM
7. 313017 Elbow, 3/8 NPTM x 3/8 NPTF 90°

### Connect Hoses When Attaching Backhoe

1. Connect male quick coupler (4) on end of hose (5) from the IN port of the backhoe valve to female quick coupler (3) on bulkhead adapter bracket.
2. Connect male quick coupler (4) on end of hose (6) from the hydraulic block on the tractor to the female quick coupler (3) on backhoe crossmember from the OUT port on the backhoe valve.



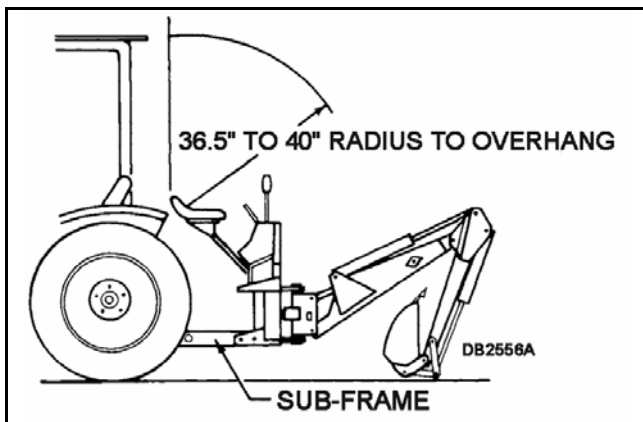
**Figure 14** Backhoe to Tractor Hose Connection

1. 1006144 Adapter, bulkhead  
3/8 NPTM x 3/4 JICM
2. 1006902 Hose, 22" x 3/4 JICF x 3/4 ORBM
3. 64299 Quick coupler, female
4. 64300 Quick coupler, male
5. 1010924 Hose, 40 x 3/8 NPTM x 3/4 ORBM
6. 1023494 Hose, 105" x 9/16 JICF x 3/4 JICF
7. 313017 Elbow, 3/8 NPTM x 3/8 NPTF 90°
8. 315037 Adapter, 3/8 NPTM x 3/4 JICM
9. 1014460 Bracket, bulkhead adapter
10. 1014474 Back plate
15. 1034795 Hose, 74" x 9/16 JICF x 3/4 JICF

## Mount Backhoe to Tractor

### **! DANGER**

■ This mounting kit is designed to provide secure mounting and adequate operator clearance for most operators when properly installed. Check clearance dimensions shown below to be sure you have installed seat bracket correctly. In some cases it may be necessary to adjust the seat to the lowest position and/or as far forward as possible in order to achieve the ideal 40-inch clearance. For 36.5-inch radius operation, taller operators may need to wear a hardhat for greater comfort and safety.



■ 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.

### **! WARNING**

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

## Check Hydraulic System

Check all hydraulic fittings and lines to be sure they are tight and free of kinks or twists.

1. Remove the backhoe seat assembly.
2. Back tractor up to backhoe and center mount between the tractor rear tires. Position tractor so that the hydraulic system can be connected. Shut off tractor, set brake, remove key.
3. Attach backhoe hydraulic system.
4. With the tractor transmission in neutral, start the engine and run at low idle. Hydraulic power is provided when the tractor is started.

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

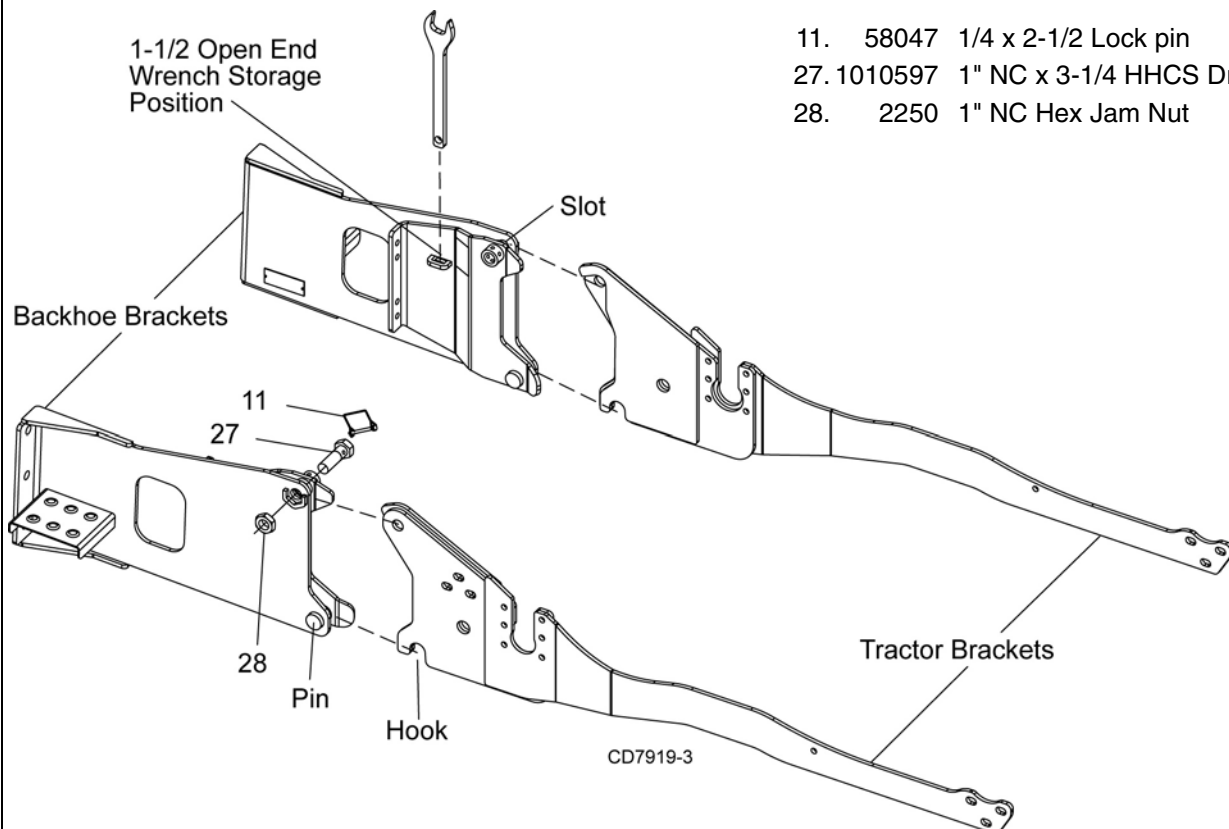
**NOTE:** You will use the backhoe hydraulics to maneuver the backhoe brackets into position. Use care in this procedure to avoid being trapped between tractor and backhoe or between backhoe parts.

## Mount Backhoe to Tractor (Continued)

5. Using the backhoe hydraulics, position the backhoe brackets at a slight angle, approximately 5- to 10-degrees.
6. Raise backhoe up by lowering stabilizers and boom section until backhoe mounting pins on backhoe brackets are slightly lower than tractor bracket hooks.
7. Slowly move tractor back until backhoe brackets are positioned below the tractor bracket hooks. Set tractor brake.
8. Raise backhoe bracket bottom mounting pins into tractor bracket bottom hooks.
9. Rotate backhoe bracket upper mounting slots over tractor bracket mounting holes and align holes.
10. Install cap screws (14) and jam nuts (15). Tighten with 1-1/2-inch open end wrench provided with kit. Return wrench to storage position (see Figure 15).
11. Secure hex nut into position with lock pin (16).
12. Shut off tractor and remove key.
13. Tighten all hardware with backhoe secured to the tractor. This will ensure proper alignment and fit-up for future installation.
  - 1/2 NC x 1-3/4 . . . . .85 lbs-ft (115 N-m)
  - 5/8 NC x 1-3/4 . . . . .170 lbs-ft (230 N-m)
  - 3/4 NC x 2 . . . . .297 lbs-ft (403 N-m)
14. Reinstall seat.
15. Start tractor and put backhoe into transport position (see Backhoe Operator's Manual).

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

- 11. 58047 1/4 x 2-1/2 Lock pin
- 27. 1010597 1" NC x 3-1/4 HHCS Drilled
- 28. 2250 1" NC Hex Jam Nut



**Figure 15.** Backhoe to Tractor Installation - BH70-X/BH80-X Backhoe

## Remove Backhoe from Tractor

### 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.

### WARNING

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

1. Position tractor on a hard, level surface and center the backhoe boom.
2. Lower stabilizers and take backhoe weight off tractor.
3. Lower boom and dipper to form a 90-degree angle and rest bucket on the ground.
4. Remove the seat assembly.
5. Remove klik pins from bolt and nut assemblies.
6. Use 1-1/2" open end wrench supplied with the mounting kit to remove hex nuts. Return wrench to storage position (see Figure 15).
7. Use the boom to relieve excess pressure on 1" bolts and remove bolts.
8. Tilt backhoe main frame to separate slots on the backhoe brackets from the tractor brackets.

9. Raise stabilizers until backhoe brackets slide out of hooks on the bottom of the tractor brackets.

10. Move tractor forward to clear backhoe brackets.

11. Lower backhoe until backhoe main frame is firmly on the ground. Retract boom and dipper and place bucket cutting edge flat on the ground. See Figure 16. Connect transport lock and insert swing lock pin.

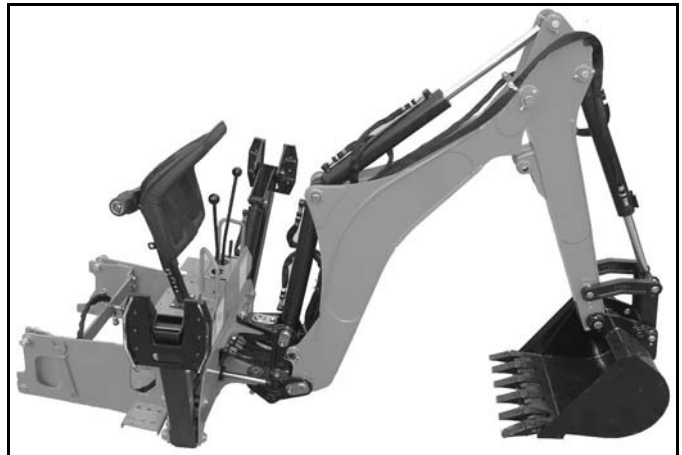
**NOTE:** It may be necessary to place backhoe main frame on 6" blocks if backhoe hose lengths are not long enough to achieve proper clearance when separating backhoe from tractor.

12. Turn off engine, set brakes, and remove key.

13. Disconnect hydraulic hoses. See page 15 for storage.

13. Reinstall seat assembly.

**NOTE:** For instructions on extended storage, see Backhoe Operator's Manual.



**Figure 16.** Backhoe Storage Position BH70-X

## STORAGE

### Connect Hydraulic Hoses

#### **NOTICE**

■ Failure to connect hoses together will result in damage to tractor hydraulic system.

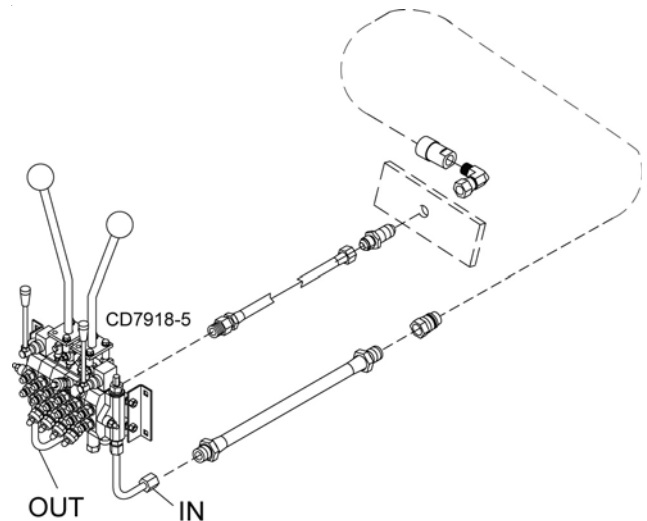
**TRACTOR:** Connect male quick coupler on end of hose from the tractor hydraulic block to the female quick coupler on bulkhead bracket when backhoe is removed from tractor. See example in Figure 17.

**NOTE:** Figure 17 shows typical hose kit connection.



**Figure 17.** Tractor Hose Connection - Backhoe Removed (Typical)

**BACKHOE:** Connect IN and OUT quick couplers together to prevent dirt and debris from accumulating in quick couplers. See Figure 18.

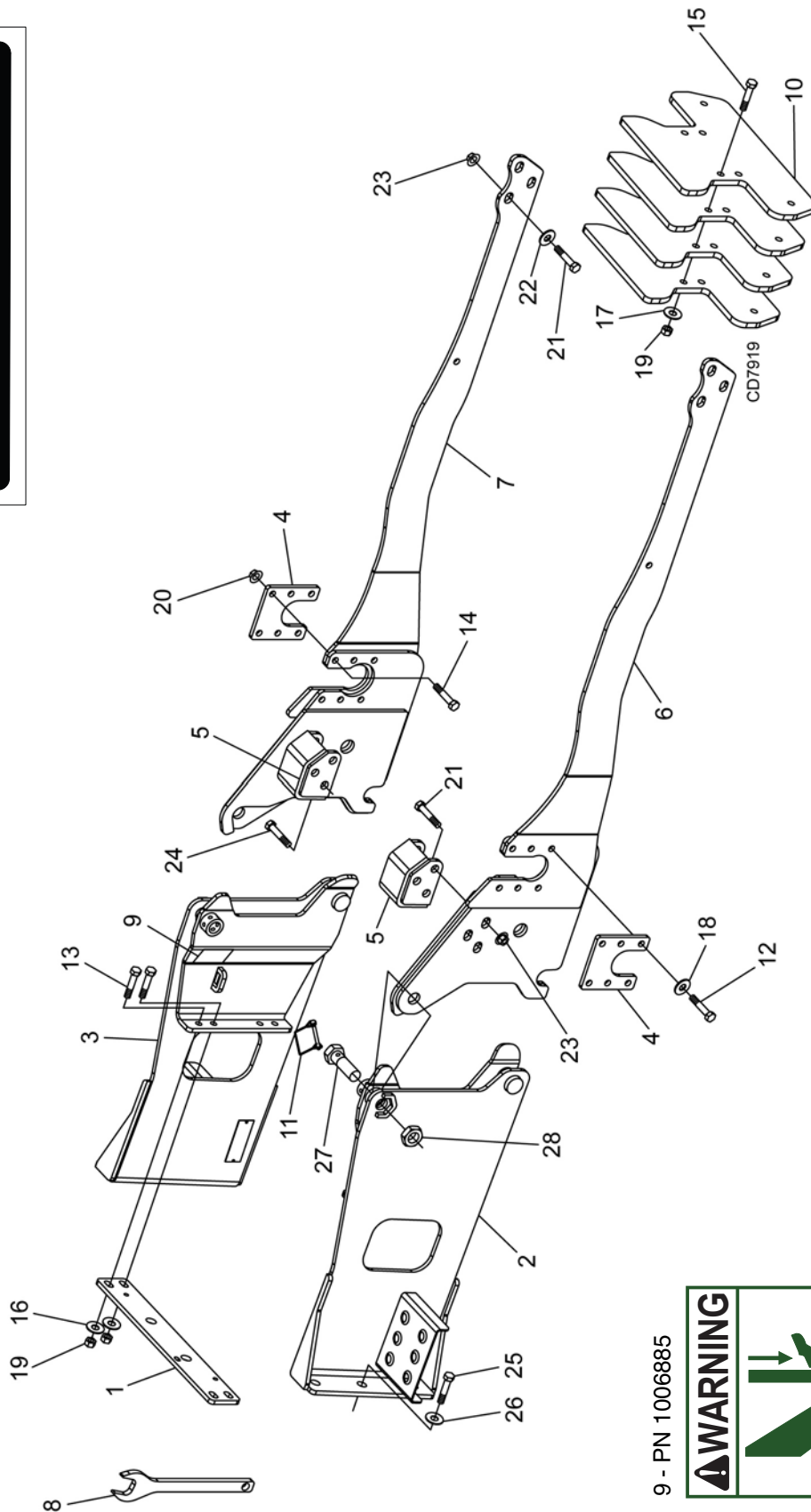
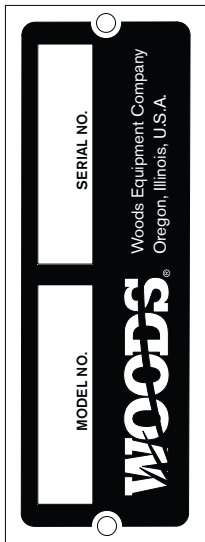


**Figure 18.** Backhoe Hose Connection - Backhoe Removed



# 1034785 4-POINT SUB-FRAME MOUNTING KIT

Serial Number Plate



9 - PN 1006885



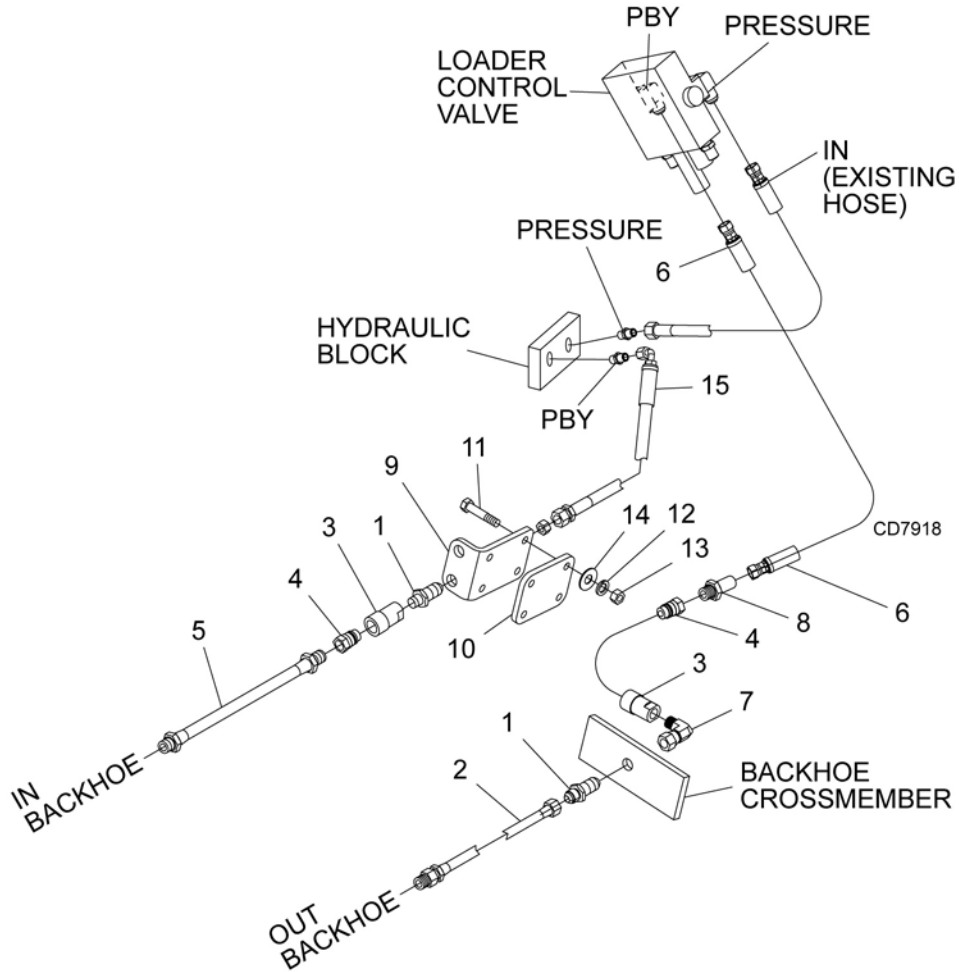
**16 Parts**

MAN0983 (8/21/2012)

# 1034785 4-POINT SUB-FRAME MOUNTING KIT PARTS LIST

REF	PART	QTY	DESCRIPTION	REF	PART	QTY	DESCRIPTION
1	1009810	1	Cross Member	20	1028903	4	1/2 NC HFN GR8
2	1034814	1	Right Backhoe Bracket	21	19024	12	5/8 NC x 1-3/4 HFS GR5
3	1034815	1	Left Backhoe Bracket	22	58337	6	5/8 Extra-Thick Hardened Flat Washer
4	1023929	2	Axle Link	23	19025	12	5/8 NC Flange Lock Nut
5	1031734	2	ROPS Bracket	24	1028717	6	M16 x 1.5P x 45 mm HHCS CL 10.9
6	1034786	1	Right Tractor Bracket	25	735	6	3/4 NC x 2 HHCS GR5
7	1034787	1	Left Tractor Bracket	26	1006371	6	3/4 Extra-Thick Hardened Flat Washer
8	1006883	1	1-1/2" Open-End Wrench	27	1010597	2	1 NC x 3-1/4 HHCS GR5 Drilled
9	1006885	1	Decal, Pinch Point Warning	28	2250	2	1 NC Hex Jam Nut
10	1031741	4	Front Weight				
11	58047	2	1/4 x 2-1/2 Lock Pin				
12	1026941	8	M12 x 1.75P x 60 mm HFS CL 10.9				
13	3379 *	7	1/2 NC x 1-1/2 HHCS GR5		HFS		Hex Flange Screw
14	1028902	4	1/2 NC x 1-3/4 HFS GR5		HHCS		Hex Head Cap Screw
15	1637 *	4	1/2 NC x 3-1/2 HHCS GR5		HFN		Hex Flange Nut
16	854 *	4	1/2 Standard Flat Washer				
17	57816	4	1/2 SAE Hardened Flat Washer				* Standard hardware, obtain locally
18	1012568	8	1/2 Nord-Lock Washer				
19	1093 *	8	1/2 NC Hex Nut				

# 1034794 HOSE KIT



REF	PART	QTY	DESCRIPTION	REF	PART	QTY	DESCRIPTION
1	1006144	2	Adapter, Bulkhead 3/8 NPTM x 3/4 JICM	9	1014460	1	Bulkhead Bracket
2	1006902	1	Hose, 22" x 3/4 JICF x 3/4 ORBM	10	1014474	1	Back Plate
3	64299	2	Quick Coupler, 3/8 Female	11	7747 *	4	3/8 NC x 3 HHCS GR5
4	64300	2	Quick Coupler, 3/8 Male	12	838 *	4	3/8 Lockwasher
5	1010924	1	Hose, 40" x 3/8 NPTM x 3/4 ORBM	13	835 *	4	3/8 NC Hex Nut
6	1023494	1	Hose, 105" x 9/16 JICF x 3/4 JICF	14	565 *	4	3/8 Flat Washer
7	313017	1	Elbow, 3/8 NPTM x 3/4 JICF 90°	15	1034795	1	Hose, 74" x 9/16 JICF x 3/4 JICF
8	315037	1	Adapter, 3/8 NPTM x 3/4 JICM	NS	89 *	4	Cable Tie, Nylon

HHCS Hex Head Cap Screw

NS Not Shown

\* Standard hardware, obtain locally

**18 Parts**

MAN0983 (8/21/2012)

# BOLT TORQUE CHART

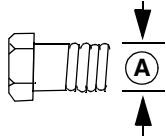
Always tighten hardware to these values unless a different torque value or tightening procedure is listed for a specific application.

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 Grade 2  
(No Dashes)

SAE Bolt Head Identification

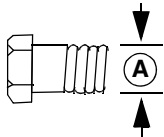


SAE Grade 5  
(3 Radial Dashes)



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  
Grade 8.8

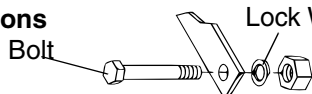
Metric Bolt Head Identification



Metric  
Grade 10.9

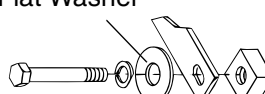
Ⓐ Diameter & Thread Pitch (Millimeters)	Wrench Size	COARSE THREAD				FINE THREAD				Ⓐ Diameter & Thread Pitch (Millimeters)
		MARKING ON HEAD								
		Metric 8.8		Metric 10.9		Metric 8.8		Metric 10.9		
		N-m	lbs-ft	N-m	lbs-ft	N-m	lbs-ft	N-m	lbs-ft	
6 x 1.0	10 mm	8	6	11	8	8	6	11	8	6 x 1.0
8 x 1.25	13 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

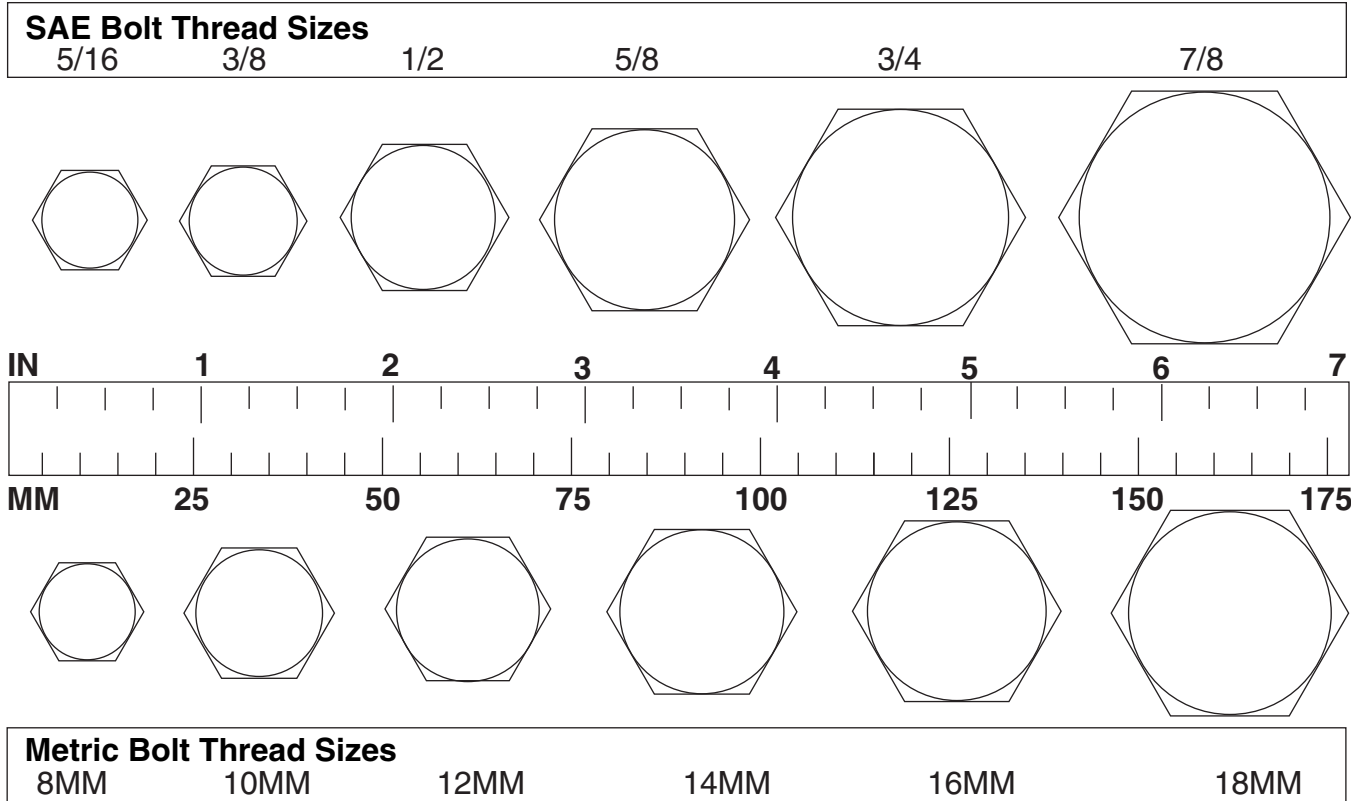
Flat Washer



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

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 loaders and backhoes are warranted for two (2) years from the date of delivery to the original purchaser.

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)
	<b>All units invoiced after 4/30/2012</b>	
Gearbox components	BB48X, BB60X, BB72X, BB84X, BB600X, BB720X, BB840X, BB6000X, BB7200X, BB8400X, DS1260, DSO1260, DS1440, TS1680,	6 years
	BW15LH, BW126X, BW180X, BW126XHD, BW180XHD, BW1260X, BW1800X,	
	BW240X, BW240XHD, BW1620X, BW2400X	
	PHD25, PHD35, PHD65, PHD95, DS96, DS120, RCC42, RD990X, PRD6000, PRD7200, PRD8400, S15CD, S20CD, S22CD, S25CD, S27CD, S30CD, TC/R74, TC/R68, TC/R60, TBW144, TBW180, TBW204	3 years (1 year if used in rental or commercial applications)
RDC54, RD60, RD72, TBW150C, TS/R60, TS/R52, TS/R44, HC48, HC54, HC60, HC72		
Blade spindles	RD990X, PRD6000, PRD7200, PRD8400, TBW144, TBW180, TBW204	3 years
Rust-through	BB600, BB720, BB840, BB6000, BB7200, BB8400, BW15LH, BW126X, BW180X, BW126XHD, BW180XHD, BW1260X, BW1800X, BW240, BW240HD, DS1260, DSO1260, DS1440, TS1680	10 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:

## Woods Equipment

A Blount International Company

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

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

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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.

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**BMP®**  
**CENTRAL FABRICATORS®**  
**GANNON®**  
**GILL®**  
**WAIN-ROY®**  
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