

# WOODS

## 1004327 SUB-FRAME MOUNTING KIT

**Woods Backhoe Model:  
BH6500/7500**

mounting to

**Kioti Tractor Model:  
DK40**

equipped with

**Woods Loaders:**

**1009**

**1012**

**1016**

**or**

**Kioti Loader:**

**1470**

Includes

**Hose Kits:**

**1003179**

**MAN0157**

**WOODS®**

## 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 Warranty Registration included in this manual. Both dealer and 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. **Note: Warranty credit is subject to this form being completed and returned.**

## 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 the adjustment and operating procedures before attempting to operate. Replacement manuals can be obtained from your dealer or, in the United States and Canada, by calling 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:** #1004327 Sub-Frame Mounting Kit

**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 **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  
GANNON  
ALLOWAY  
GILL  
GANNONBMP  
WAIN ROY  
CF  
ALITEC**

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# 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.

## INSTALLATION

- This Sub-Frame Mounting Kit is to be used 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.
- 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 are available from dealer 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.
- 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.
- Protective hose sleeves must cover all hydraulic hoses 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.
- Always wear relatively tight and belted clothing to avoid entanglement in moving parts. Wear sturdy, rough-soled work shoes and protective equipment for eyes, hair, hands, hearing, and head.
- Make sure attachment is properly secured, adjusted, and in good operating condition.
- The sub-frame mount 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 sub-frame correctly. Follow all mounting instructions in this manual. Do not operate backhoe unless there is adequate clearance. Failure to

# SAFETY RULES



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



check and comply with these instructions may result in serious injury or death.

■ 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.

■ If tractor is equipped with draft sensing control, set control to “HEAVY” (minimum sensitivity) position.

■ On tractors equipped with optional “Draft Control Hitch,” you must install the “Draft Lockout” (provided in sub-frame kit) into position as shown. Failure to install the “Draft Lockout” will allow upper hitch to move during backhoe operation and could result in operator injury.

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

■ A minimum 25% 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 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 Sub-Frame Mounting Kit Manual instructions on attaching and removing back-

hoe 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 entanglement in moving parts. Wear sturdy, rough-soled work shoes and protective equipment for eyes, hair, hands, hearing, and head.

■ 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 SUB-FRAME INSTALLATION

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.

## DANGER

- The sub-frame mount 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 sub-frame 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.
- 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 Sub-Frame 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.

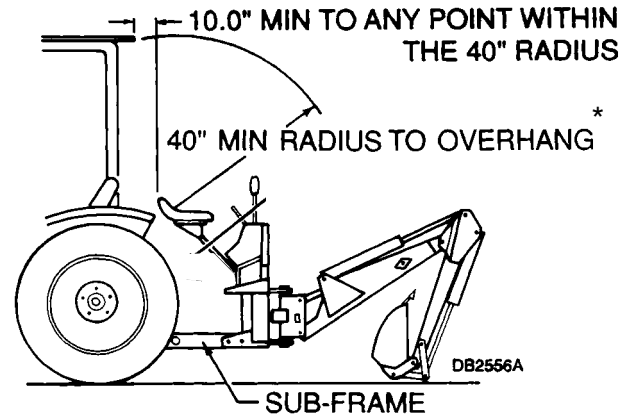
## WARNING

- Only use #1004327 Sub-Frame Mounting Kit for mounting Woods BH6500/7500 backhoe on Kioti DK40 tractor equipped with Woods 1009/1012/1016 loaders or Kioti 1470 loader. Any other use or modification of this mounting kit may result in serious injury or death.
- Safety instructions are important! Read all attachment and power unit manuals; follow all safety rules and safety decal information. (Replacement manuals are available from dealer 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.
- 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.
- A minimum 25% 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.
- 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.

## SUB-FRAME INSTALLATION Cont'd

### CAUTION

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



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

Figure 1 Sub-Frame Clearance

## TRACTOR PREPARATION

1. Refer to the WOODS BH6500/7500 Backhoe Operator's Manual for backhoe assembly instructions.

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

2. Remove the tractor top link, 3-point lift lower arms, and anti-sway links.

**NOTE:** The pins and hardware that attach the lower links to the transmission will be needed for the sub-frame installation.

**NOTE:** Loader mounting kit #111768 or Kioti 1470 loader mount must be installed prior to sub-frame mounting kit #1004327 installation.

**NOTE:** Leave all hardware loose until sub-frame weldment has been fit up.

## Modify PTO Shield.

1. Remove PTO shield from tractor.
2. Cut out right and left corner of PTO shield as shown in Figure 2.
3. Reinstall PTO shield on tractor.

**NOTE:** Make sure 3-point lower lift pins can be removed without interfering with PTO shield installed. Remove more material as needed.

### WARNING

- Make sure shields and guards are properly installed and in good condition. Replace if damaged

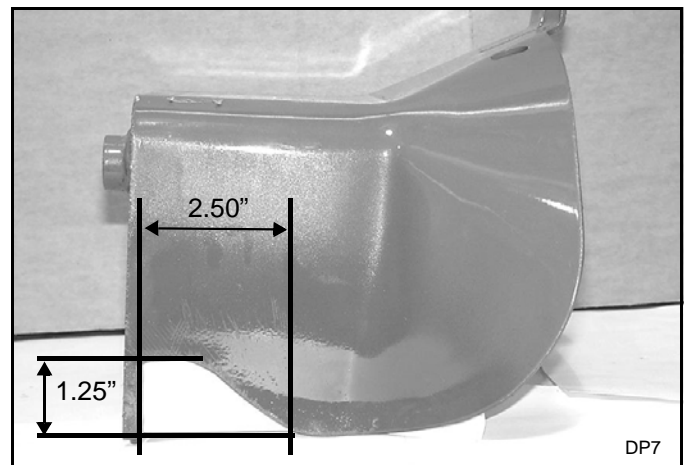


Figure 2 Modified PTO Shield.



## SUB-FRAME INSTALLATION Cont'd

### Front Mounting Brackets

#### Woods 1009, 1012, 1016 Loaders

**NOTE:** Front mounting bracket (crossmember) is installed with loader mounting kit #111768, (Figure 3).

Backhoe can only be installed after loader mounting kit is installed.



Figure 3 Crossmember Installed with LMK #111768

#### Kioti 1470 Loader

1. Remove cross brace from right and left loader mounts on the underside of tractor. Retain hardware for later use.

2. Position front mount (4) under tractor and secure to right and left loader mounts using hardware previously removed, (Figure 4).

**NOTE:** Loosen hardware on loader mounts as needed for easier installation of front mount hardware.

3. Secure rear half of mount to tractor frame using two cap screw (18) and hardened flat washers (15).

- 4. 1004339 Front mount (Kioti loader)
- 15. 57816 1/2 Hardened flat washer
- 18. 65506 M12 x 1.25P x 35mm Cap screw
- \* Loader mount hardware

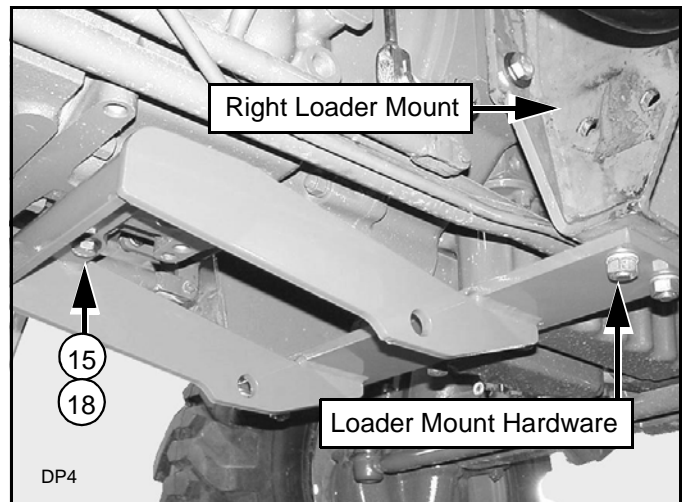


Figure 4 Front Mount Installed

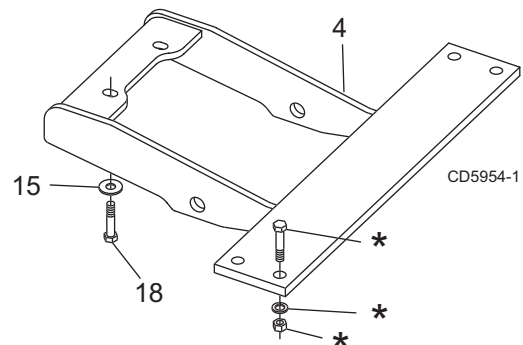


Figure 5 Front Mount Installation



## SUB-FRAME INSTALLATION Cont'd

### Install Rear Hanger Bracket

1. Install rear hanger bracket (6) to bottom of transmission housing. Position bracket with the slots to the rear of the tractor. Secure using two cap screws (12) and hardened flat washers (13).
2. Torque these cap screws to 87 lbs.-ft. at this time.

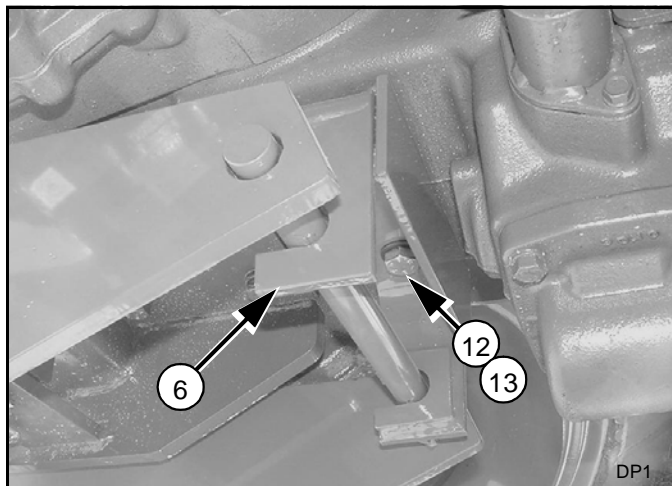


Figure 6 Rear Hanger Bracket Installed

- 2. 1004329 Rear mount
- 6. 62977 Rear hanger bracket
- 12. 16087 M14 x 1.5P x 35mm Cap screw
- 13. 46070 9/16 Hardened flat washer, thick

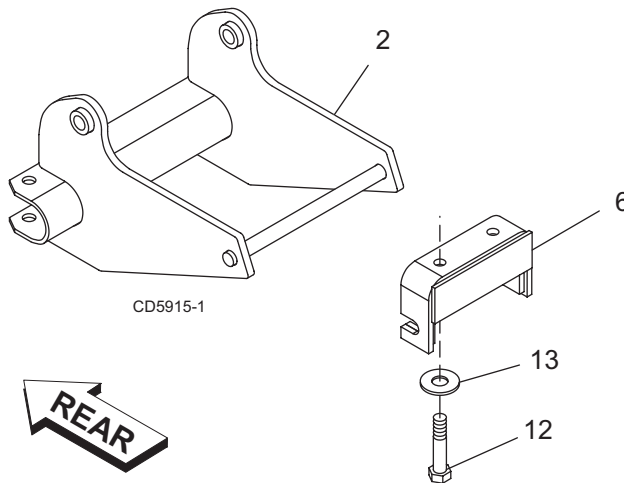


Figure 7 Rear Hanger & Rear Mount

### Install Rear Mount

1. Slide round bar of rear mount (2) into slots of rear hanger bracket (Figure 6 & Figure 7).
2. Pivot rear mount upward and secure to tractor with 3-point lower link pins and hardware (Figure 8).

### IMPORTANT

- Figure 8 is shown with PTO shield removed for clarification. Only remove PTO shield for modifications described on 5.

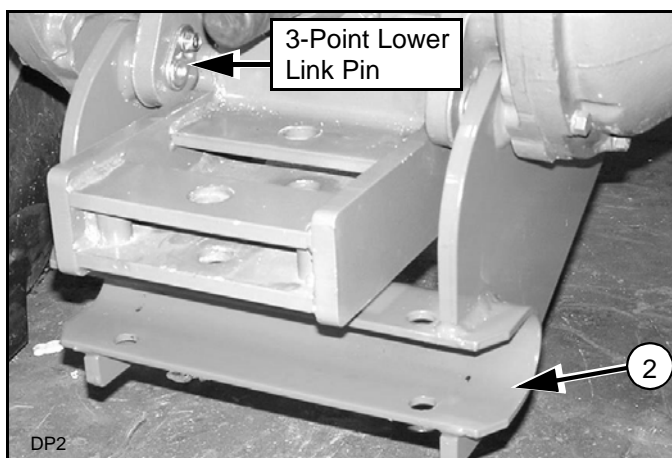


Figure 8 Rear Mount Installed

## SUB-FRAME INSTALLATION Cont'd

### Sub-Frame Fit-Up

1. Center sub-frame under tractor.
2. Insert cross tube of sub-frame into channel of rear mount bracket (2) as shown in Figure 9.
3. Install clevis pins (10) and hair pins (20) to secure in rear mounting bracket as shown in Figure 10.

- 2. 1004329 Rear mount
- 10. 1002850 Hitch pin, 3/4 x 2-3/4
- 20. 2688 Hair pin, 5/32

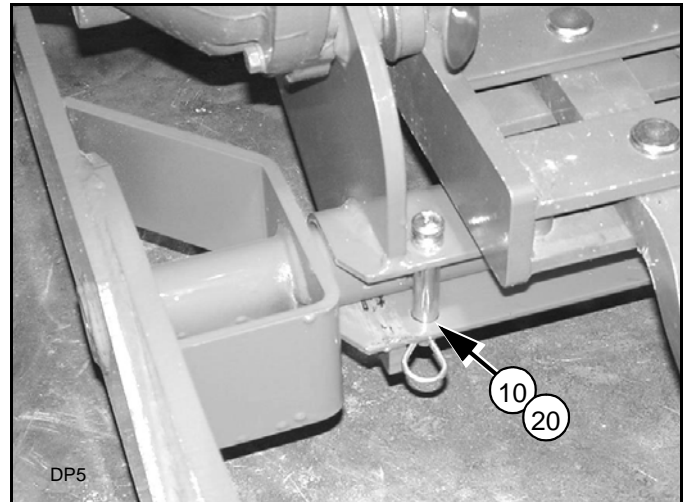


Figure 9 Sub-Frame Fit-Up (Typical)

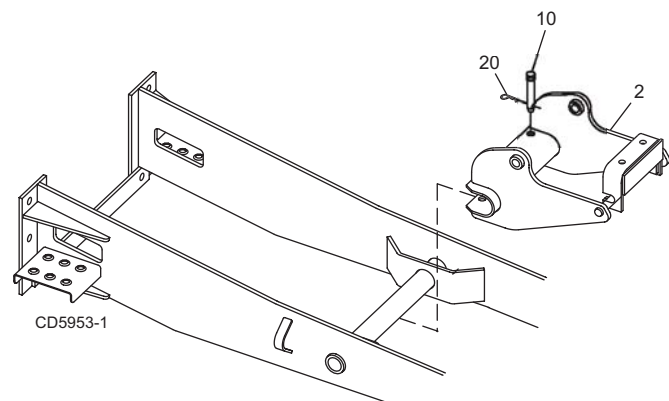


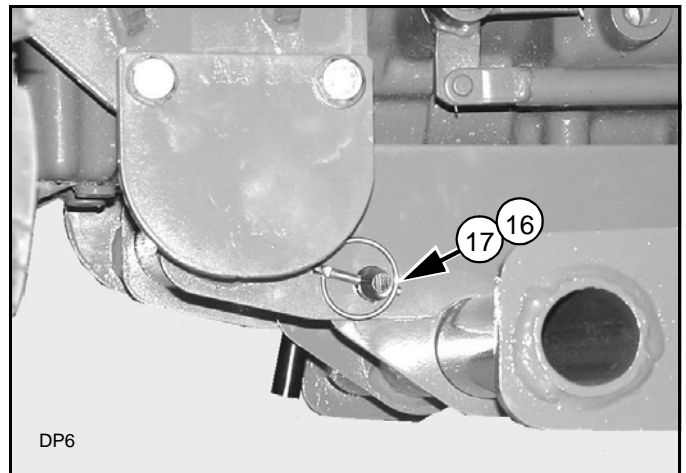
Figure 10 Clevis Pins Installed

## SUB-FRAME INSTALLATION Cont'd

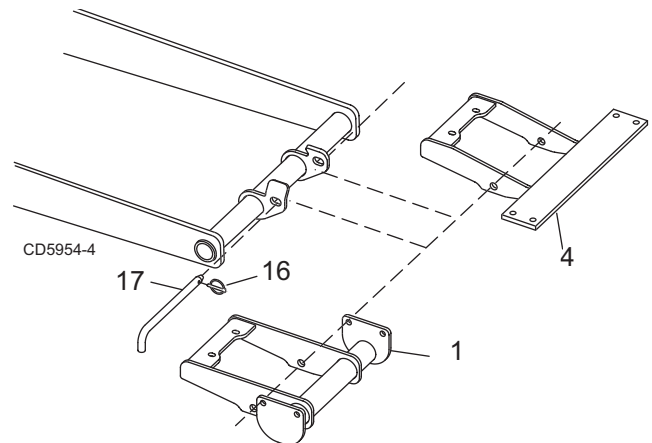
### Sub-Frame Fit-Up (Cont.)

1. Rotate sub-frame up until locating lugs are positioned between front mount attached to loader mount.
2. Align holes and install lock pin (17) and klik pin (16) as shown in Figure 11 & Figure 12.
3. Once sub-frame is secured into position with bent pin, tighten all hardware to specifications given below.
4. Remove sub-frame from tractor once all hardware is tightened.

1. 1004314 Crossmember (Woods)
4. 1004339 Front mount (Kioti)
16. 62043 Klik pin 1/4 x 1-3/4
17. 64953 Lock pin.75 x 17.75



**Figure 11** Lock Pin Installed



**Figure 12** Bent Pin Installation

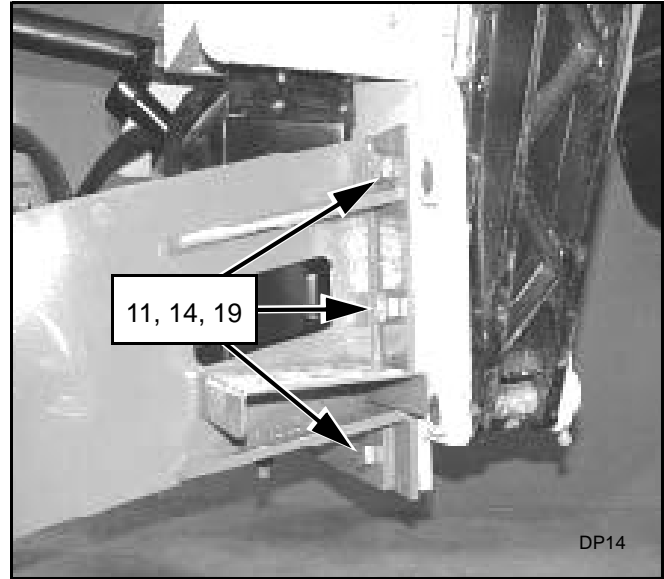
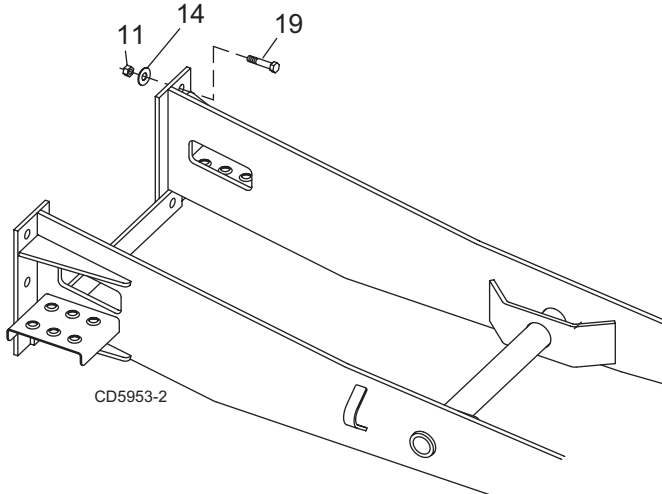
### TORQUE SPECIFICATIONS

Cap Screw	Qty	Wrench Size	Required Torque
M12 x 1.25 x 55mm	2	18mm	55 lbs.-ft. (75 N-m)
M14 x 1.50 x 35mm	2	21mm	87 lbs.-ft.(118 N-m)

## SUB-FRAME INSTALLATION Cont'd

### Attach Sub-Frame to Backhoe

1. Align six holes on the backhoe with holes on sub-frame.
2. Secure with six cap screws, flat washers, and hex nuts as shown. Tighten according to specifications given below.



**Figure 13** Sub-Frame Installed to Backhoe

- 11. 1450 3/4 Hex nut
- 14. 57798 3/4 Hardened flat washer
- 19. 735 3/4 NC x 2 Cap screw

#### TORQUE SPECIFICATIONS

Cap Screw	Qty	Wrench Size	Required Torque
3/4 NC x 2	6	1-1/8"	297 lbs.-ft. (403 N-m)



# HYDRAULIC INSTALLATION

## 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.

### THE FOLLOWING INSTRUCTIONS ARE FOR OPERATING THE BACKHOE USING FOUR OPTIONS:

- 1** #9261 Pump Kit  
For use with BH6500/7500 Backhoe ..... 12
- 2** #1003179 Hose Kit  
For use with BH6500/7500 Backhoe and 1009 Loader ..... 13
- 3** #1003179 Hose Kit  
For use with BH6500/7500 Backhoe and 1012/1016 Loaders. . . . . 18

# 1

## #9261 Pump Kit (For BH6500/7500 Backhoe Only)

### Assemble Pump Kit #9261

**NOTE:** For complete information on pump kit installation, consult the Woods BH6500/7500 backhoe operators manual #37541.

**NOTE:** Discard pump mounting bracket provided in pump kit #9261

1. Attach pump mounting bracket (6, supplied with sub-frame mounting kit #1004327) to pump assembly as shown in Figure 14.
2. Secure with two cap screws (A) and lock nuts (B) from pump kit #9261 as shown.
3. Torque cap screws to 85 lbs.-ft.

1. ----- Pump assembly with adapter
2. 1004353 Pump mounting bracket
3. 765 1/2 NC Hex lock nut
4. ----- Tractor drawbar bracket
5. 3379 1/2 NC x 1-1/2 Cap screw
6. ----- Tractor PTO shaft

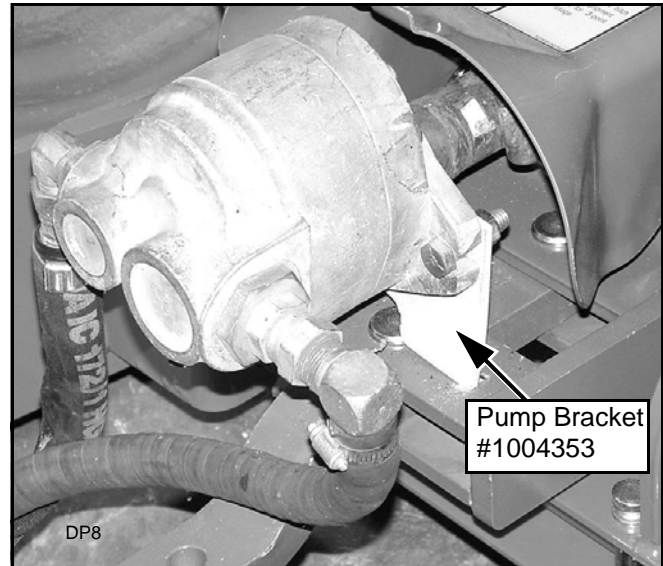


Figure 14 Pump Bracket Installed

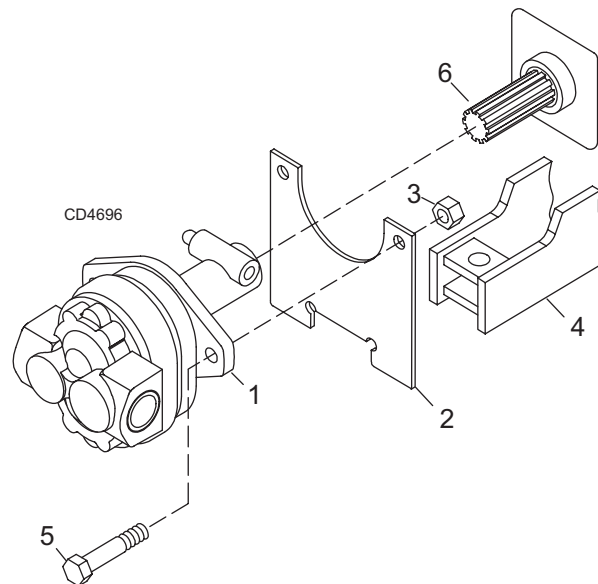


Figure 15 Pump Bracket Installation

**NOTE:** When pump kit assembly is completed proceed to Sub-Frame & Backhoe to Tractor, page 23.



# 2

## #1003179 Hose Kit (For BH6500/7500 Backhoe & 1009 Loader)

### Connect Fittings to Hydraulic Manifold

#### IMPORTANT

■ **Incorrect installation can damage the tractor hydraulic system. Read and understand instructions in the tractor manual before connecting.**

**NOTE:** This hose kit contains items that will not be used for installation with the 1009 loader.

1. Locate the hydraulic manifold on the tractor chassis right side under the platform. The manifold contains three auxiliary hydraulic ports and the control screw as shown in Figure 16.

The control screw (2) is used to direct hydraulic flow and must be positioned correctly to prevent damage to the tractor hydraulic system.

2. Using a screwdriver, carefully turn control screw counter-clockwise 1/4 turn to the vertical position.

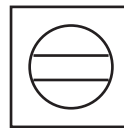
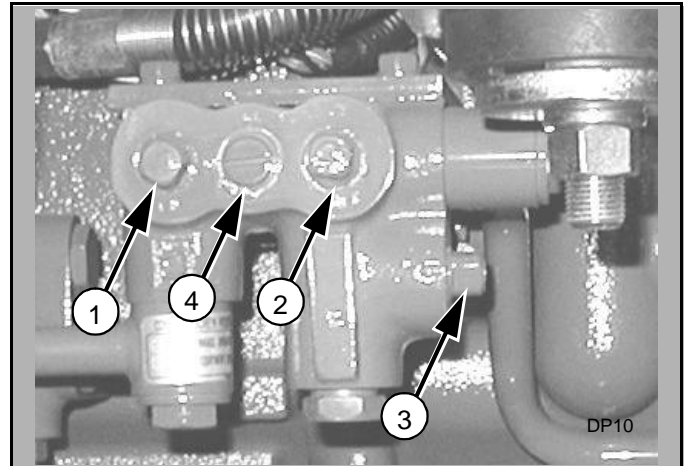
See the tractor operator's manual for control screw instructions.

3. Use thread sealant on all pipe thread connections and tighten securely to prevent leaks.

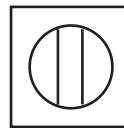
4. Remove three port plugs (1 - POWER BEYOND), (2 - PRESSURE), and (3 - RETURN) from manifold ports.

#### IMPORTANT

■ **When backhoe and loader are removed, the control screw must be turned back to the three o'clock position to prevent damage to tractor hydraulic system.**



Control Screw (Backhoe or Loader Valve Not Installed)



Control Screw (Backhoe or Loader Valve Installed)

- 1 - Power-Beyond Port
- 2 - Pressure Port
- 3 - Tank/Return
- 4 - Control Screw

**Figure 16** Tractor Hydraulic Manifold

## 2 #1003179 Hose Kit for 1009 Loader *Cont'd*

### Connect Fittings to Hydraulic Manifold (Cont'd)

**NOTE:** Refer to manual MAN0156 Loader Mounting Kit #111768 for installation of loader valve kit #40532

**NOTE:** Loader valve hose kit #1002656 will be required to complete this installation. If hose kit is already installed, many of the fittings will need to be removed.

1. Remove banjo screw fitting on hydraulic line above the RETURN port (not shown). This will allow clearance to install RETURN port fittings.

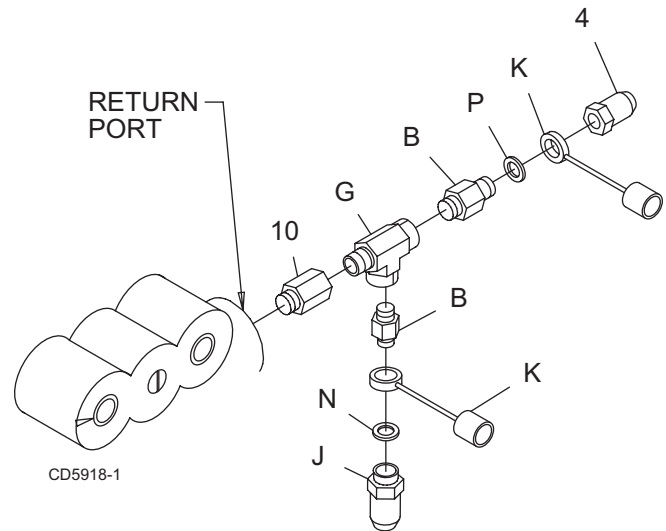
2. Install fittings, quick couplers, dust caps and colored bands to the hydraulic manifold RETURN port as shown in Figure 17.

3. Install fittings, quick couplers, dust cap and colored bands to the hydraulic manifold POWER BEYOND (PBY) port as shown in Figure 18.

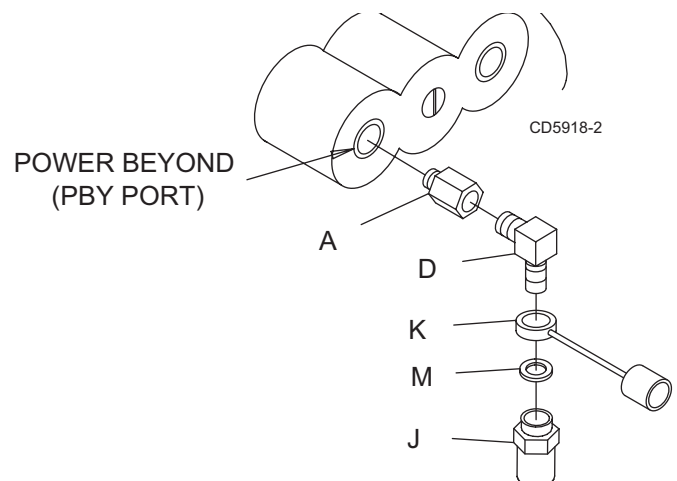
- 3. 315030 Adapter, 3/8 NPTM x 3/8 NPTM
- 4. 316007 Quick coupler set
- 10. 315045 Adapter, 3/8 BSTPM x 3/8 NPTF
- A. 66369 Adapter, 3/8 BSTPM x 3/8 NPTF
- B. 315030 Adapter, 3/8 NPTM x 3/8 NPTM
- D. 66367 Elbow, 3/8 NPTM x 3/8 NPTM
- G. 66368 Tee run, 3/8
- J. 64300 Male quick coupler, 3/8
- K. 395065 Dust cap, 3/8
- L. 56061 Plastic band, Green
- M. 56062 Plastic band, Yellow
- P. 395062 Plastic band, Blue

4. Install fittings, quick couplers, dust caps and colored bands to the hydraulic manifold PRESSURE port as shown in Figure 19.

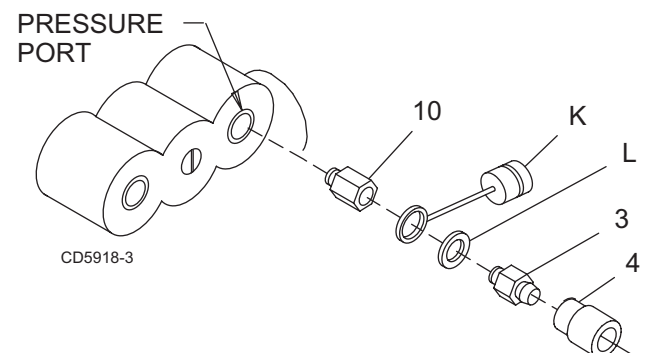
5. Install banjo screw fitting to hydraulic line above the RETURN port.



**Figure 17** Return Port Fittings Installation



**Figure 18** Power Beyond Fitting Installation



**Figure 19** Pressure Fitting Installation

## 2 #1003179 Hose Kit for 1009 Loader Cont'd

### Assemble Loader Valve Hoses

1. Attach elbow (2), blue band (P), dust plug (K), and female quick coupler (4) to one 42" hose (6).
2. Attach hose to loader valve OUT port.
3. Attach elbow (2), green band (L), and male quick coupler (4) to second 42" hose (6).
4. Attach hose to loader valve IN port.

**NOTE:** If loader valve kit has been previously installed, remove fitting from loader valve PBY port. Install elbow (F) in this port. New loader valve will already have elbow (F) installed.

5. Attach a yellow band (M) and female quick coupler (4) to the 50" hose (9).
6. Attach hose to the loader valve PBY port.

- |    |        |                                  |
|----|--------|----------------------------------|
| 2. | 313017 | Elbow, 3/8 NPTM x 3/8 NPTF       |
| 4. | 316007 | Quick coupler set, 3/8           |
| 6. | 56245  | Hose, 42" x 3/8 NPTM x 9/16 JICF |
| 9. | 59261  | Hose, 50" x 3/8 NPTM x 9/16 JICF |
| F. | 63558  | Elbow, 9/16 JICM x 9/16 ORBM     |
| K. | 395065 | Dust cap & plug set, 3/8         |
| L. | 56061  | Plastic band, Green              |
| M. | 56062  | Plastic band, Yellow             |
| P. | 395062 | Plastic band, Blue               |

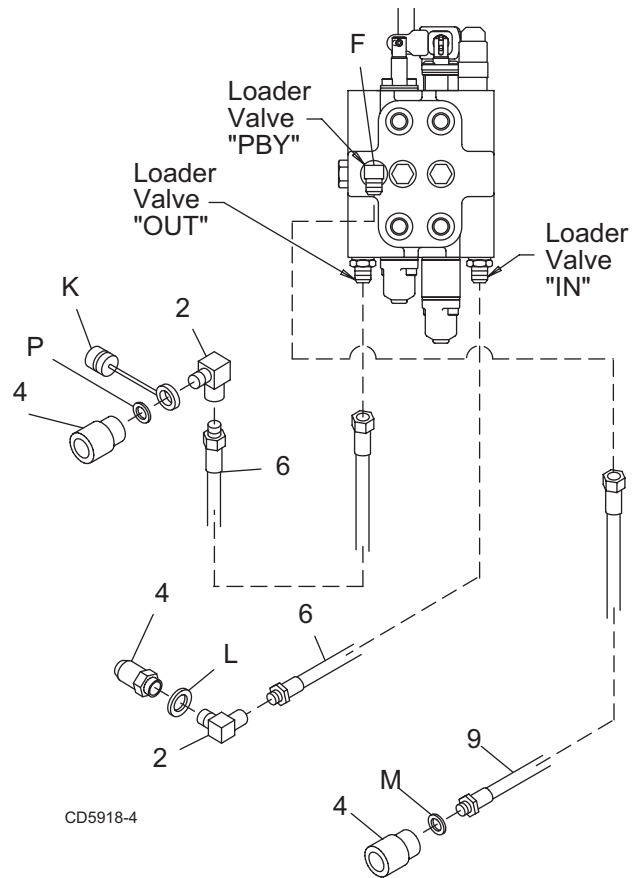


Figure 20 Loader Valve Hose Assembly

### Assemble Backhoe Valve Hoses

1. Attach yellow band (M) and male quick coupler (4) to one 100" hose (Q).
2. Attach hose to backhoe valve IN port.
3. Attach elbow (E), red band (N), and female quick coupler (H) to second 100" hose (Q).
4. Attach hose to backhoe valve OUT port.
5. Route hoses (Q) through guides on sub-frame weldment.
6. Secure hoses with nylon ties every 20".
7. Install decal #56139 to right tractor fender.

- |    |         |                                  |
|----|---------|----------------------------------|
| E. | 313017  | Elbow, 3/8 NPTM x 3/8 NPTF       |
| H. | 64299   | Female quick coupler             |
| M. | 56062   | Plastic band, Yellow             |
| N. | 395061  | Plastic band, Red                |
| Q. | 1003190 | Hose, 100" x 3/8 NPTM x 3/4 ORBM |
| 4. | 316007  | Quick coupler set, 3/8           |

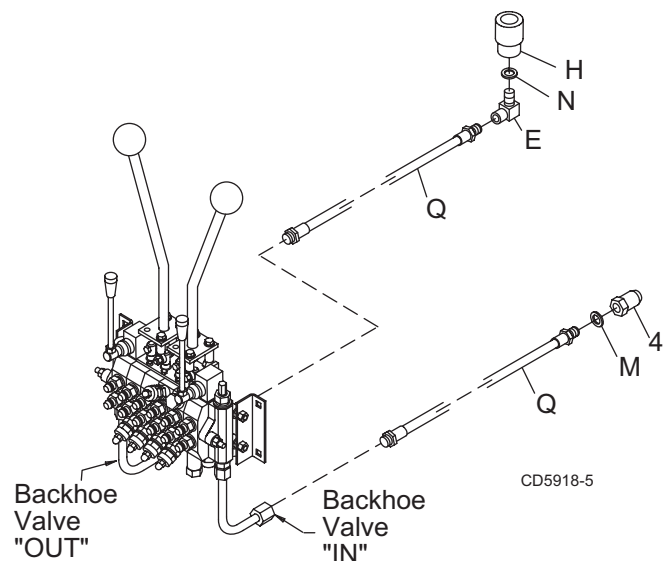


Figure 21 Backhoe Valve Hose Assembly

## 2 #1003179 Hose Kit for 1009 Loader Cont'd

### Operation

When hose kit assembly is completed proceed to Sub-Frame & Backhoe to Tractor, page 23. Follow these hose connection instructions when attaching backhoe and/or loader to tractor.

### Connect Hoses to Hydraulic Manifold (Backhoe & Loader)

1. Connect loader valve OUT hose (blue band) to the tee in the hydraulic manifold RETURN port.
2. Connect loader IN hose (green band L) to the hydraulic manifold PRESSURE port.
3. Connect loader valve PBY hose (yellow band M) to the backhoe IN hose with yellow band.
4. Connect backhoe OUT hose (red band N) to the tee in the hydraulic manifold RETURN port with red band.

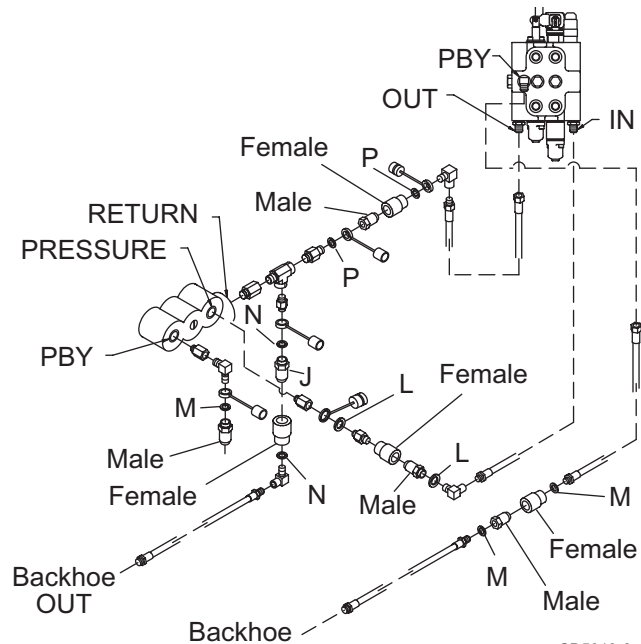


Figure 22 Backhoe & Loader Hose Installation

### Connect Hoses to Hydraulic Manifold (1009 Loader Only)

1. Connect loader valve OUT hose (blue band P) to the tee in the hydraulic manifold RETURN port with blue band.
2. Connect loader IN hose (green band L) to the hydraulic manifold PRESSURE port.
3. Connect loader PBY hose (yellow band M) to the hydraulic manifold PBY port.

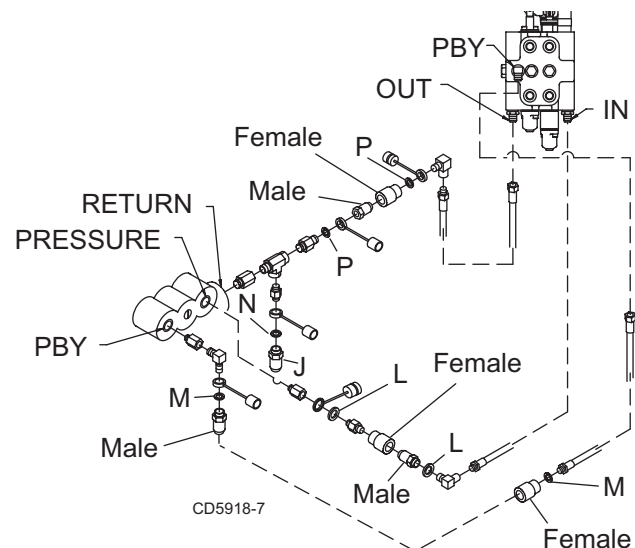


Figure 23 Loader Hose Installation

## 2 #1003179 Hose Kit for 1009 Loader Cont'd

### Connect Hoses to Hydraulic Manifold (Backhoe Only)

1. Connect backhoe valve OUT hose (red band N) to the tee in the hydraulic manifold RETURN port.
2. Connect backhoe valve IN hose (yellow band M) to the hydraulic manifold PRESSURE port (green band L).

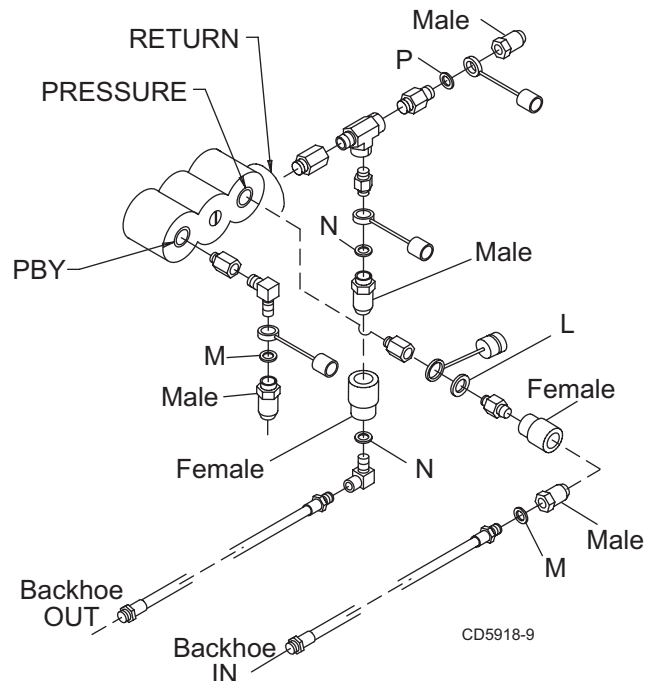


Figure 24 Backhoe Hose Installation

### Backhoe & Loader Removed

**NOTE:** See Remove Backhoe With Sub-Frame, page 24 to remove backhoe. See Loader Manual to remove loader.

1. Remove all hoses from Hydraulic Manifold.
2. Cover male quick couplers with dust caps.
3. Turn control screw on Hydraulic Manifold back to the 3 o'clock position.

### IMPORTANT

■ When backhoe and loader are removed, the control screw must be turned back to the three o'clock position to prevent damage to tractor hydraulic system.

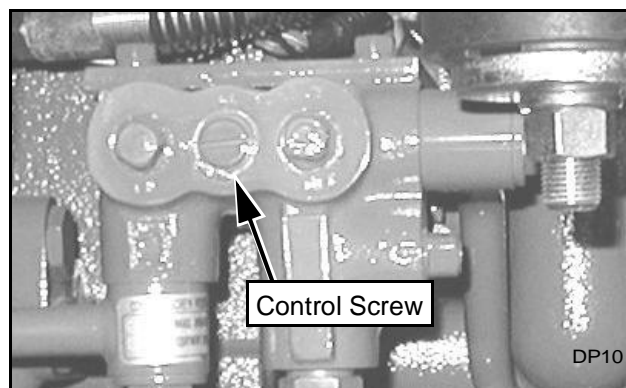


Figure 25 Control Screw in 3 O'Clock Position

# 3

## #1003179 Hose Kit (For BH6500/7500 Backhoe & 1012/1016 Loaders)

### Connect Fittings to Hydraulic Manifold

#### IMPORTANT

■ **Incorrect installation can damage the tractor hydraulic system. Read and understand instructions in the tractor manual before connecting.**

**NOTE:** This hose kit contains items that will not be used for installation with the 1012/1016 loader.

1. Locate the hydraulic manifold on the tractor chassis right side under the platform. The manifold contains three auxiliary hydraulic ports and the control screw as shown in Figure 26.

The control screw (4) is used to direct hydraulic flow and must be positioned correctly to prevent damage to the tractor hydraulic system.

2. Using a screwdriver, carefully turn control screw counter-clockwise 1/4 turn to the vertical position.

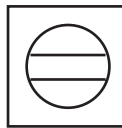
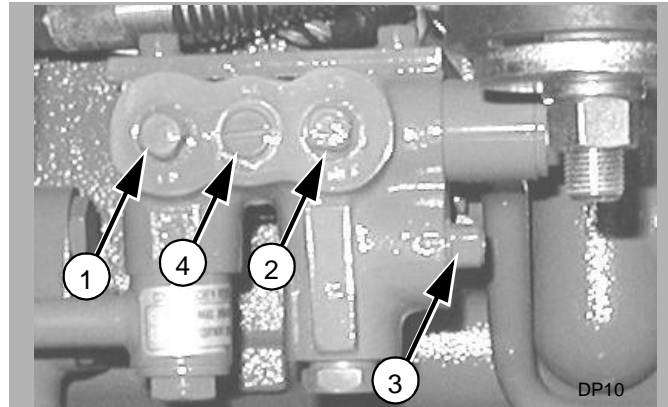
See the tractor operator's manual for control screw instructions.

3. Use thread sealant on all pipe thread connections and tighten securely to prevent leaks.

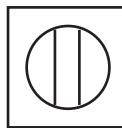
4. Remove three port plugs (1 - POWER BEYOND), (2 - PRESSURE), and (3 - RETURN) from manifold ports.

#### IMPORTANT

■ **If loader valve is removed, the control screw must be turned back to the three o'clock position to prevent damage to tractor hydraulic system.**



Control Screw (Backhoe or Loader Valve Not Installed)



Control Screw (Backhoe or Loader Valve Installed)

- 1 - Power-Beyond Port
- 2 - Pressure Port
- 3 - Tank/Return
- 4 - Control Screw

**Figure 26** Tractor Hydraulic Manifold



### 3 #1003179 Hose Kit for 1012/1016 Loader Cont'd

#### Connect Fittings to hydraulic Manifold (Cont'd)

**NOTE:** Refer to manual MAN0104 Loader Mounting Kit #111767 for installation of loader valve kit #46675

**NOTE:** Loader valve hose kit #1002657 will be required to complete this installation. If hose kit is already installed, many of the fittings will need to be removed.

1. Remove banjo screw fitting on hydraulic line above the return port (not shown). This will allow clearance to install RETURN port fittings.
2. Install fittings, quick couplers, dust cap, and colored bands to the hydraulic manifold RETURN port as shown in Figure 27.
3. Install banjo screw previously removed.
4. Install fittings, quick couplers, dust cap, and colored bands to the hydraulic manifold POWER BEYOND (PBY) port as shown in Figure 28.

- A. 66369 Adapter, 3/8 BSTPM x 3/8 NPTF
- B. 315030 Adapter, 3/8 NPTM x 3/8 NPTM
- D. 66367 Elbow, 3/8NPTM x 3/8 NPTM
- G. 66368 Tee run, 3/8
- J. 64300 Male quick coupler, 3/8
- K. 395065 Dust cap, 3/8
- M. 56062 Plastic band, Yellow
- 22. 315037 Adapter, 3/8 NPTM x 3/4 JICM
- 24. 316029 Elbow, 3/8 BSPTM x 3/8 NPTF

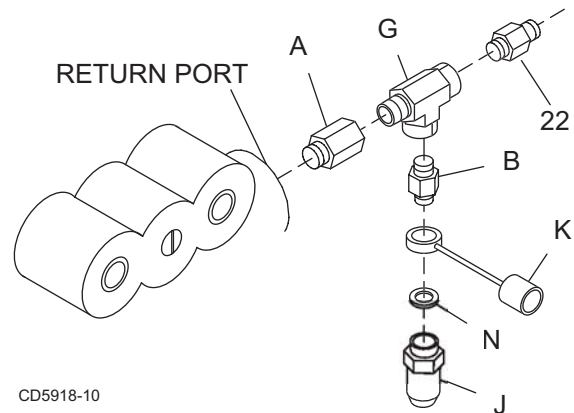


Figure 27 Return Port Fittings Installation

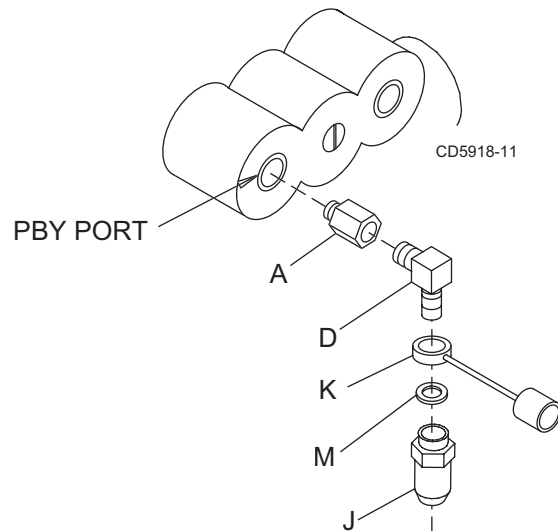


Figure 28 Power Beyond Fitting Installation

5. Install elbow (24) and adapter (22) to the hydraulic manifold PRESSURE port as shown in Figure 29.

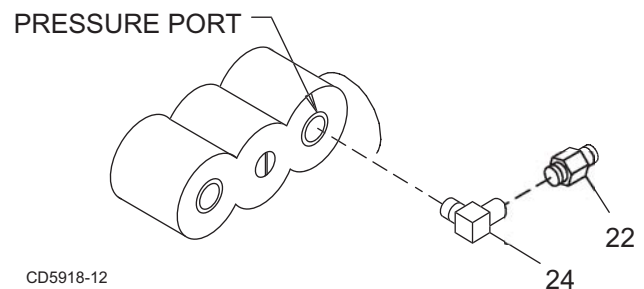


Figure 29 Pressure Fitting Installation

### 3 #1003179 Hose Kit for 10012/10016 Loader Cont'd

#### Assemble Loader Valve Hoses

1. Attach 90° ends of hoses (21) to IN, OUT and PBY ports of the loader valve.
2. Connect loader valve OUT hose to fittings in the hydraulic manifold RETURN port.
3. Connect loader valve IN hose to fittings in the hydraulic manifold PRESSURE port.
4. Attach adapter (C), yellow band (M), and female quick coupler (H) to end of PBY hose (Figure 30).

- C. 315037 Adapter, 3/8 NPTM x 3/8 NPTF
- H. 316007 Quick coupler set, 3/8
- M. 56062 Plastic band, Yellow
- 21. 57847 Hose, 48" x 3/4 JICF x 3/4 JICF

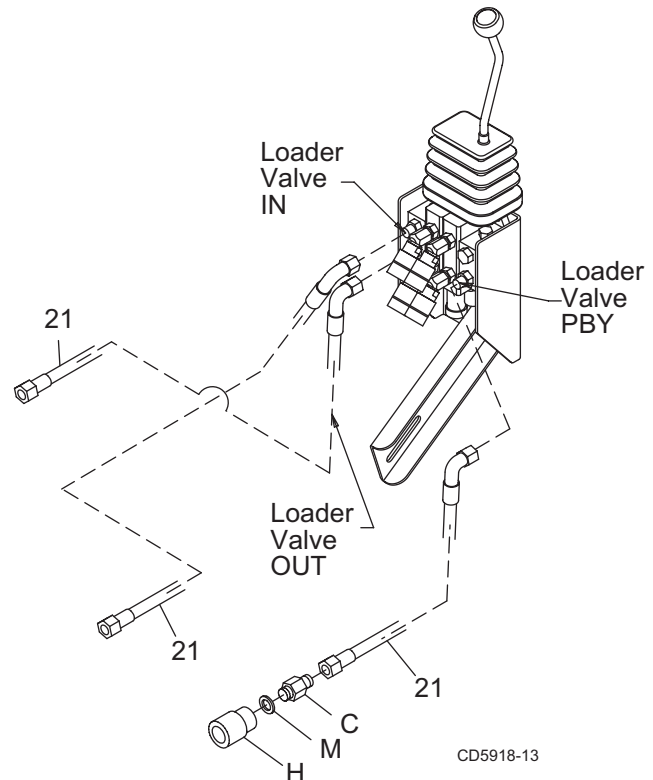


Figure 30 Loader Valve Hose Assembly

#### Assemble Backhoe Valve Hoses

1. Attach yellow band (M) and male quick coupler (J) to one 100" hose (Q).
2. Attach hose to backhoe valve IN port.
3. Attach elbow (E), red band (N), and female quick coupler (H) to second 100" hose (Q).
4. Attach hose to backhoe valve OUT port.
5. Route hoses (Q) through guides on sub-frame weldment.
6. Secure hoses with nylon ties every 20".
7. Install decal #56139 to right tractor fender.

- E. 313017 Elbow, 3/8 NPTM x 3/8 NPTF
- H. 64299 Quick coupler female, 3/8
- J. 64300 Quick coupler male, 3/8
- M. 56062 Plastic band, Yellow
- N. 395061 Plastic band, Red
- Q. 1003190 Hose, 100" x 3/8 NPTM x 3/4 ORBM

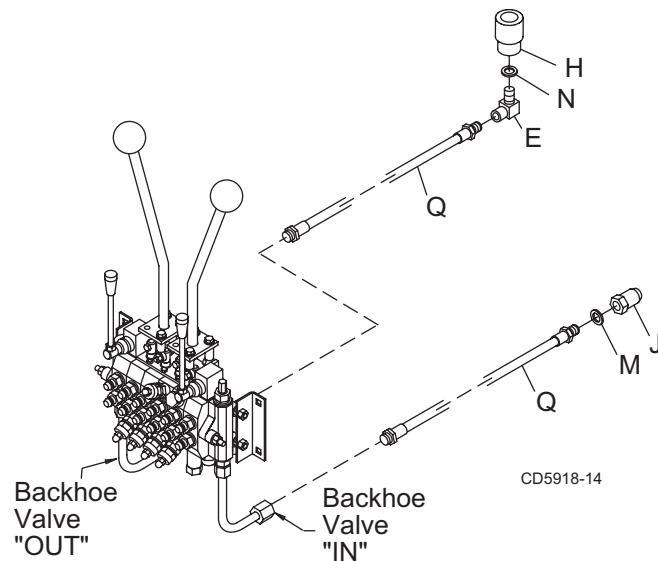


Figure 31 Backhoe Valve Hose Assembly

### 3 #1003179 Hose Kit for 1012/1016 Loader Cont'd

#### Operation

When hose kit assembly is completed proceed to Sub-Frame & Backhoe to Tractor, page 23. Follow these hose connection instructions when attaching backhoe and/or loader to tractor.

#### Connect Hoses to Hydraulic Manifold (Backhoe & Loader)

1. Connect loader valve PBY hose (yellow band M) to the backhoe valve IN hose with yellow band.
2. Connect backhoe OUT hose with (red band N) to the tee in the hydraulic manifold RETURN port.

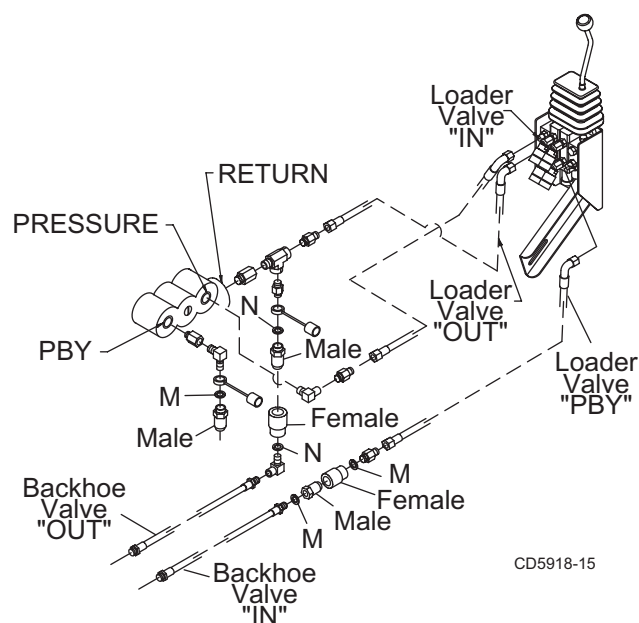


Figure 32 Backhoe & Loader Hose Installation

#### Connect Hoses to Hydraulic Manifold (1012/1016 Loader Only)

1. Connect loader PBY hose (yellow band M) to hydraulic manifold PBY port.

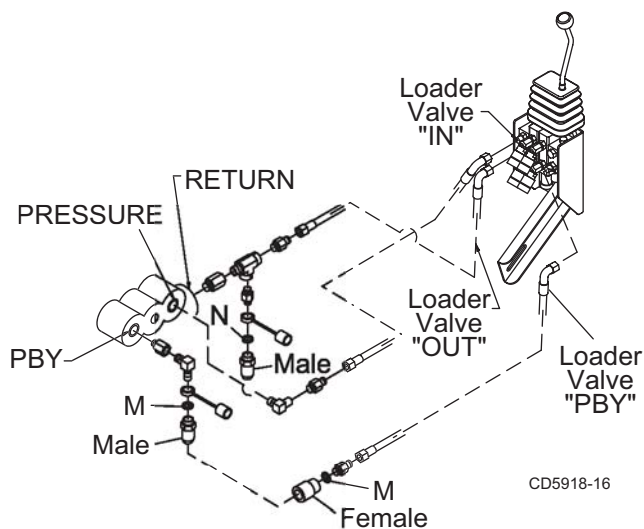


Figure 33 Loader Hose Installation

### 3 #1003179 HOSE KIT FOR 1012/1016 LOADER CONT'D

#### Connect Hoses to Hydraulic Manifold (Backhoe Attached, Loader Removed)

**NOTE:** When loader is removed from the tractor the loader valve stays on the loader mount.

1. Connect backhoe valve OUT hose (red band N) to the tee in the hydraulic manifold RETURN port.
2. Connect backhoe valve IN hose (yellow band M) to the PBY hose from the loader valve.

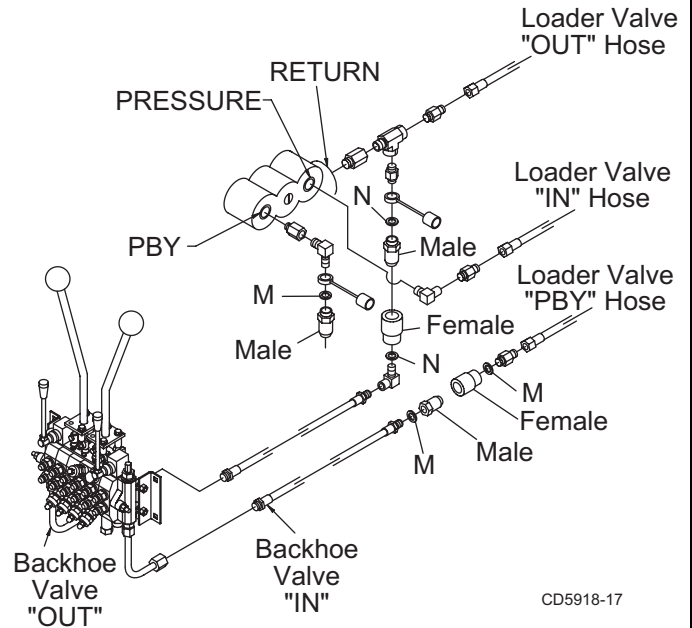


Figure 34 Backhoe Hose Installation

#### Connect Hoses to Hydraulic Manifold (Backhoe & Loader Removed)

**NOTE:** When loader is removed from the tractor the loader valve stays on the loader mount.

1. Connect loader PBY hose (yellow band M) to the hydraulic manifold PBY port.

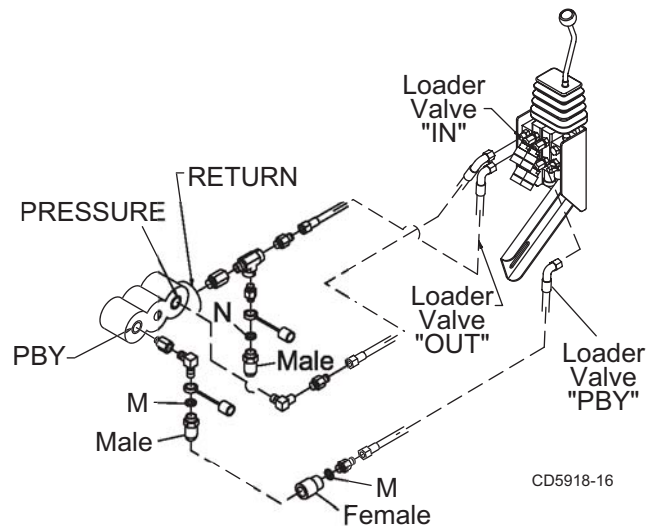


Figure 35 Hose Installation with Backhoe & Loader Removed

## Sub-Frame & Backhoe to Tractor

### Mount Sub-Frame & Backhoe to Tractor

#### DANGER

■ The sub-frame mount 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 sub-frame 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.

■ 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 Sub-Frame 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 tractor. Failure to comply may result in equipment failure and/or personal injury.

1. Remove the backhoe seat assembly.
2. Place sub-frame flat on a hard level surface.
3. Back tractor over the sub-frame and center between the tractor rear tires. Position tractor so that the hydraulic system can be connected (see Connect Hydraulic System section). Shut off tractor, set brake, remove key.
4. Install pump if equipped.
5. Start tractor.

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

6. Raise rear of sub-frame up by lowering stabilizers and boom section until even with channels of rear mount OR hooks are even with 3-point lift arm pins. Keep front of sub-frame low enough to clear tractor.

7. Drive tractor back so that crosstube slides into channel OR sub-frame hooks attach to 3-point lift arm pins. Shut off tractor, set brake, remove key.

8. Fasten sub-frame in place by placing clevis pins into channel holes and secure with safety pins OR attach lock bars, clevis pins, and Klik pins.

9. With the tractor engine off, relieve pressure in the backhoe boom and stabilizers to raise sub-frame into front hanger.

10. Install bent pin and Klik pin in front hanger mount.

11. Reinstall seat.

12. Start tractor and put backhoe into transport position (see backhoe operator's manual).

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

## Sub-Frame & Backhoe to Tractor Cont'd

### Remove Backhoe With Sub-Frame

#### **⚠ 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 **Sub-Frame 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 tractor. Failure to comply may result in equipment failure and/or personal injury.

1. On a hard level surface, center the backhoe boom.
2. Remove the seat assembly.
3. Remove retaining pins from front sub-frame bracket and clevis pins from rear hanger bracket OR from sub-frame hooks.
4. Start the tractor. Engage PTO pump at slow idle speed. Curl the bucket all the way towards the operator.
5. Remove transport lock.
6. Extend boom and dipperstick so that dipperstick is vertical.
7. Rest bucket on the ground and lower stabilizers to take backhoe weight off tractor. Extend boom and stabilizers to release sub-frame.
8. Keeping the bucket and stabilizers in contact with the ground, raise the rear of the backhoe to pivot the front of the sub-frame down.

**NOTE:** For removal, the front of the sub-frame must be low enough to clear the lowest point of the tractor. Maintain clearance throughout this procedure.

9. Move the tractor far enough to release the sub-frame from the brackets OR from the 3-point lift pins.

10. Place 6" blocks under backhoe mainframe and raise stabilizers to lower backhoe onto the blocks as shown below.

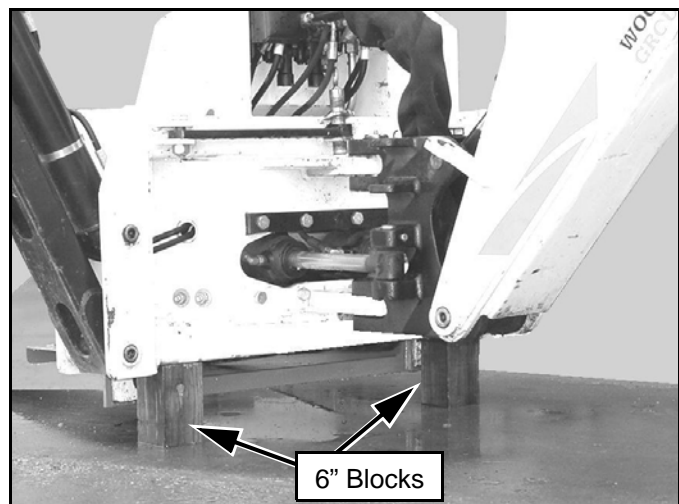
11. Disengage PTO, turn off engine, set brakes, and remove key before leaving tractor seat.

12. Remove the backhoe hydraulic pump from the PTO shaft if equipped (see Store Hydraulic Pump section), or disengage the tractor hydraulic circuit and disconnect the hydraulic quick couplers.

13. Reinstall seat assembly.

14. Make sure backhoe and sub-frame clear the tractor chassis. Start tractor and drive the tractor away.

**NOTE:** For instructions on extended storage, see backhoe operator's manual



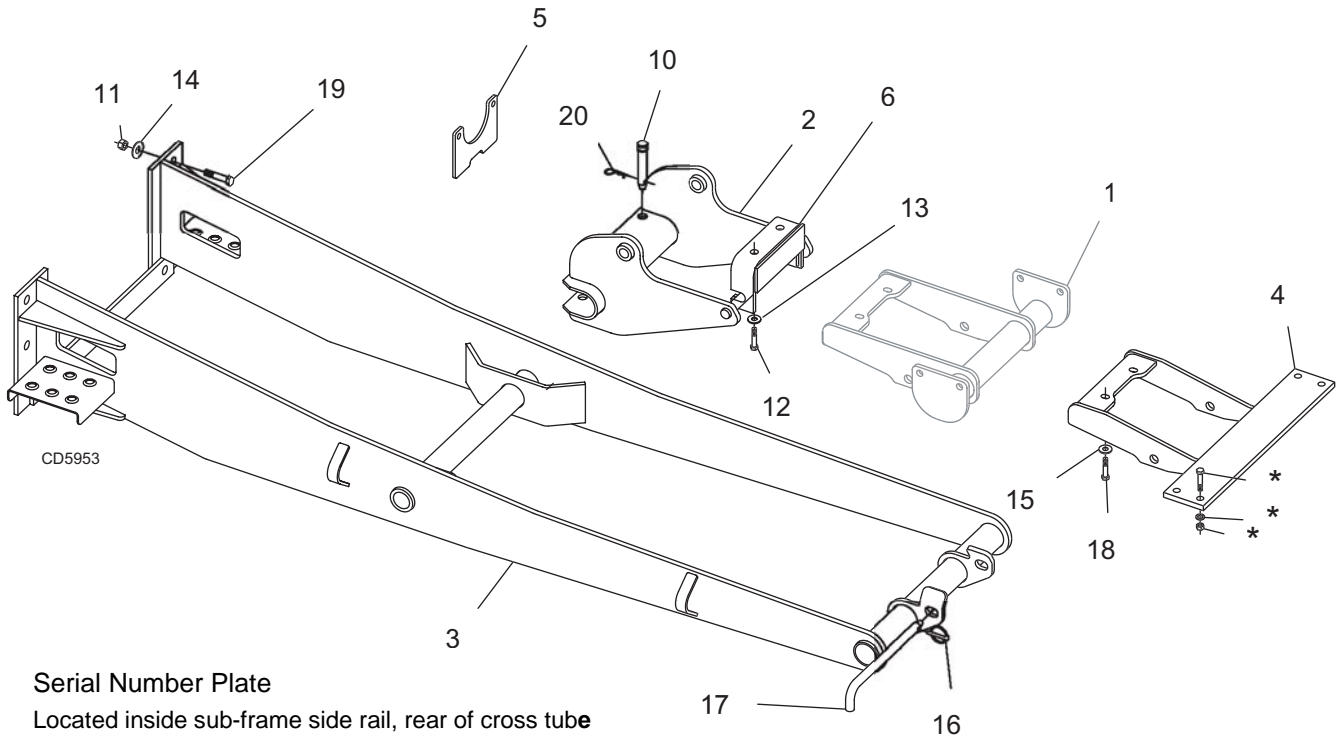


### **Store Hydraulic Pump if Equipped**

1. Disconnect pump from tractor PTO.
2. Store pump on back side of backhoe to prevent dirt and debris from accumulating in pump adapter

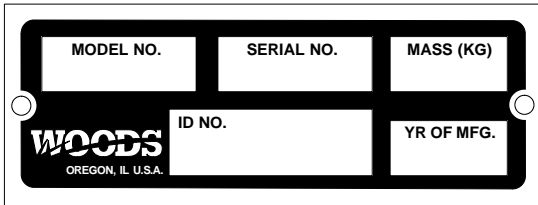
## **NOTES**

# #1004327 SUB-FRAME MOUNTING KIT



## Serial Number Plate

Located inside sub-frame side rail, rear of cross tube



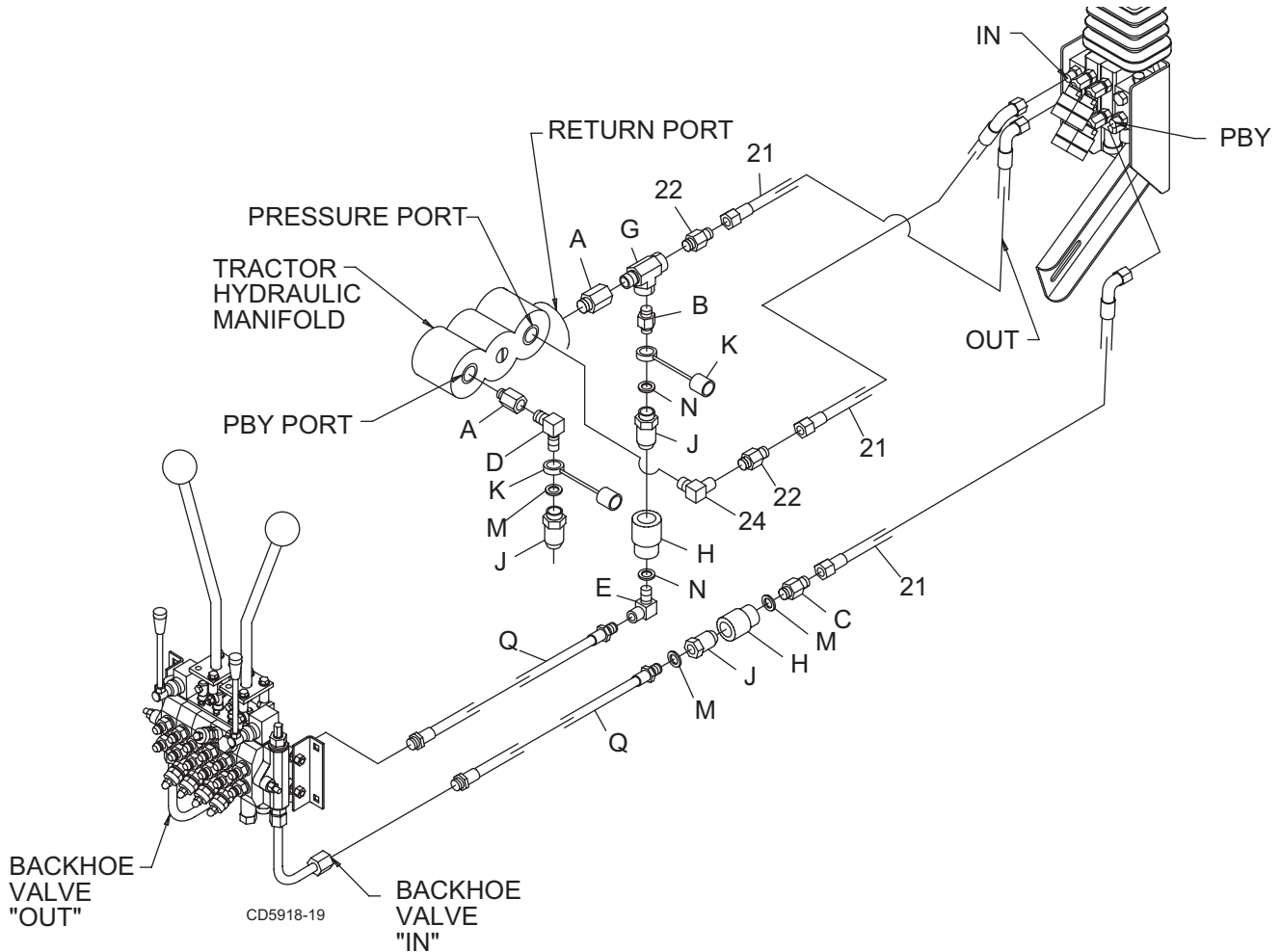
REF	PART	QTY	DESCRIPTION
1	1004314	1	Crossmember (with Woods loader)
2	1004329	1	Rear Mount
3	1004332	1	BH 6500/7500 Backhoe sub-frame
4	1004339	2	Front mount (Kioti loader)
5	1004353	1	Pump bracket
6	62977	1	Rear hanger bracket
10	1002850	2	Hitch pin, 3/4 x 2-3/4
11	1450	6	3/4 NC Hex nut
12	16087	2	M14 x 1.50P x 35mm Cap screw

REF	PART	QTY	DESCRIPTION
14	57798	6	3/4 Hardened flat washer
15	57816	2	1/2 Hardened flat washer
16	62043	1	1/4 x 1-3/4 Klik pin
17	64953	1	3/4 x 11-1/2 Lock pin
18	65506	2	M12 x 1.25P x 35mm Cap screw CL8.8
19	735	6	3/4 NC x 2 Cap screw GR5
20	2688	2	5/32 Hair pin cotter
*			Removed from Kioti loader mount

# 26 PARTS

MAN0157 (10/12/01)

## #1003179 AND #1002657 HOSE KITS



### #1003179 Hose kit for BH6500/7500

REF	PART	QTY	DESCRIPTION
A	66369	2	Adapter, 3/8 BSTP x 3/8 NPTF
B	315030	2	Adapter, 3/8 NPTM x 3/8 NPTM
C	315037	1	Adapter, 3/8 NPTM x 3/4 JICM
D	66367	1	Elbow, 3/8 NPTM x 3/8 NPTM
E	313017	1	Elbow, 3/8 NPTM x 3/8 NPTF
F	63558	1	Elbow, 9/16 JICM x 9/16 ORBM (if required)
G	66368	1	Tee run, 3/8 NPT
H	64299	2	Quick coupler, 3/8 female
J	64300	3	Quick coupler, 3/8 male
K	395065	3	Dust cap & plug set, 3/8
L	56061	2	Green plastic band
M	56062	3	Yellow plastic band
N	395061	2	Red plastic band
P	395062	2	Blue plastic band
Q	1003190	2	Hose, 100" x 3/8 NPTM x 3/4 ORBM
NS	31407	6	Plastic tie (TY-RAP)
NS	56139	1	Decal, Instruction connect PBY

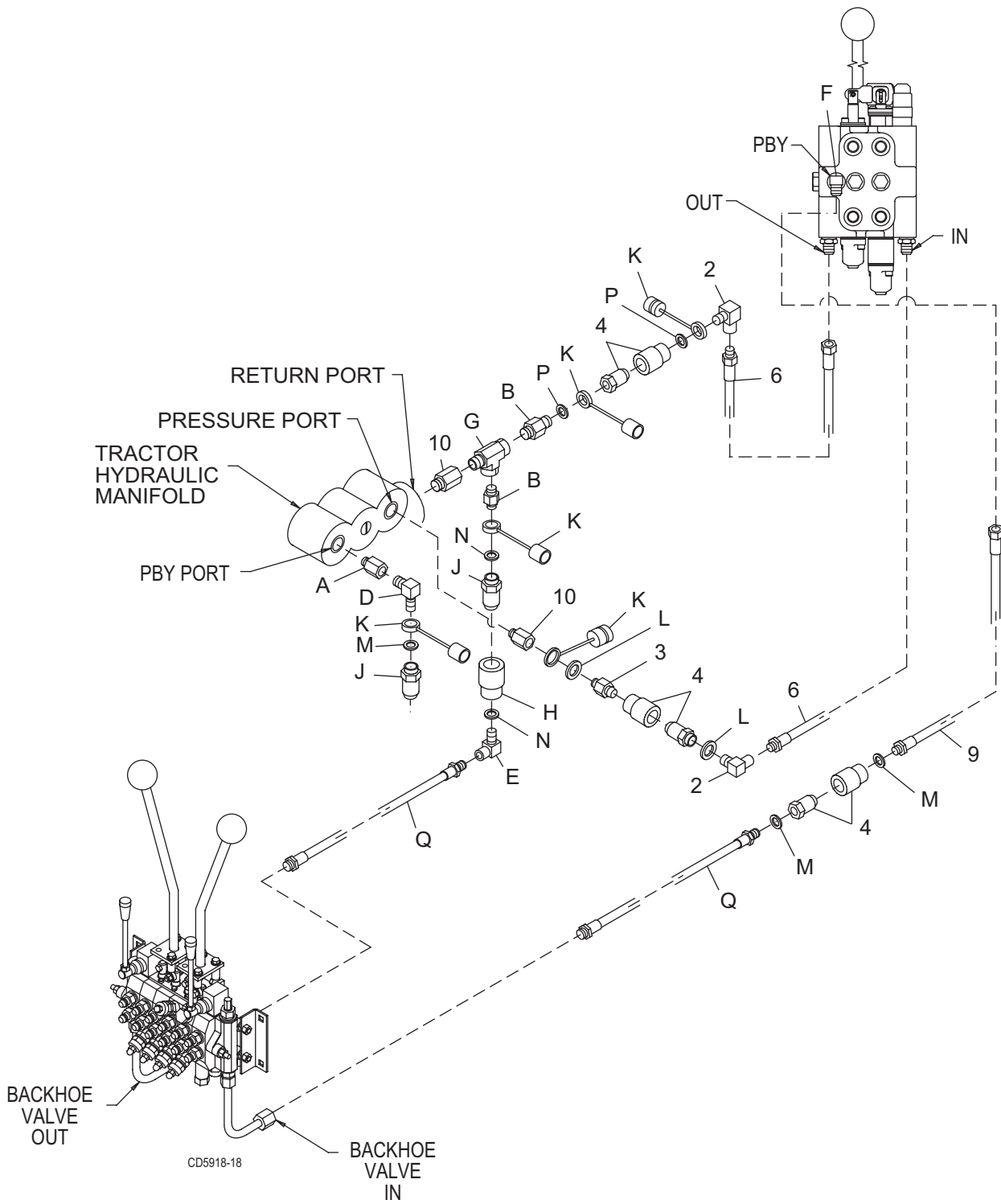
### #1002657 Hose kit for 1012/1016 loader valve

REF	PART	QTY	DESCRIPTION
21	57847	3	Hose, 48" x 3/8 JICF x 3/4 JICF
22	315037	1	Adapter, 3/8 NPTM x 3/4 JICM
23	56145	2	Adapter, 3/8 BSTM x 3/4 JICM
24	316029	2	Elbow, 3/8 BSPTM x 3/8 NPTF
25	313032	3	Elbow, 3/4 JICM x 3/4 JICF
NS	88	2	Plastic tie (TY-RAP)

**NOTE:** Hose kits will contain fittings not required for this tractor.

**NOTE:** The following fittings are interchangeable  
 #66369 is the same as #315045  
 #66367 is the same as #313010

# #1003179 AND #1002656 HOSE KITS



**28 PARTS**

MAN0157 (10/12/01)

## #1003179 AND #1002656 HOSE KITS PARTS LIST

### #1003179 Hose kit for BH6500/7500

REF	PART	QTY	DESCRIPTION
A	66369	2	Adapter, 3/8 BSTP x 3/8 NPTF
B	315030	2	Adapter, 3/8 NPTM x 3/8 NPTM
C	315037	1	Adapter, 3/8 NPTM x 3/4 JICM
D	66367	1	Elbow, 3/8 NPTM x 3/8 NPTM
E	313017	1	Elbow, 3/8 NPTM x 3/8 NPTF
F	63558	1	Elbow, 9/16 JICM x 9/16 ORBM (if required)
G	66368	1	Tee run, 3/8 NPT
H	64299	2	Quick coupler, 3/8 female
J	64300	3	Quick coupler, 3/8 male
K	395065	3	Dust cap & plug set, 3/8
L	56061	2	Green plastic band
M	56062	3	Yellow plastic band
N	395061	2	Red plastic band
P	395062	2	Blue plastic band
Q	1003190	2	Hose, 100" x 3/8 NPTM x 3/4 ORBM
NS	31407	6	Plastic tie (TY-RAP)
NS	56139	1	Decal, Instruction connect PBY

### #1002656 Hose kit for 1009 loader valve

REF	PART	QTY	DESCRIPTION
1	313010	1	Elbow, 3/8 NPTM x 3/8 NPTF
2	313017	3	Elbow, 3/8 NPTM x 3/8 NPSM
3	315030	1	Adapter 3/8 NPTM x 3/8 NPTM
4	316007	3	Quick coupler set, 3/8
5	38604	3	Elbow, 9/16 JICM x 9/16 JICF
6	56245	2	Hose, 42" x 3/8 NPTM x 9/16 JICF
7	54081	1	Adapter, 3/8 BSTP x 9/16 JICM
8	56274	1	Adapter, 3/8 NPTM x 9/16 JICF
9	59261	1	Hose, 50" x 3/8 NPTM x 9/16 JICF
10	315045	2	Adapter, 3/8 BSTPM x 3/8 NPTF
11	62367	1	Adapter, 9/16 JICM x 3/4 ORBM
NS	88	2	Plastic tie (TY-RAP)

**NOTE:** Hose kits will contain fittings not required for this tractor.

**NOTE:** The following fittings are inter changeable  
 #66369 is the same as #315045  
 #66367 is the same as #313010

# BOLT TORQUE CHART

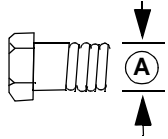
Always tighten hardware to these values unless a different torque value or tightening procedure is listed for a specific application.

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

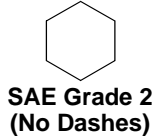
Always use the proper tool for tightening hardware: SAE for SAE hardware and Metric for metric hardware.

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 & J1701M JUL96.



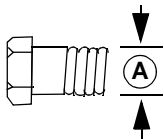
## SAE SERIES TORQUE CHART



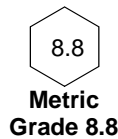
SAE Bolt Head Identification



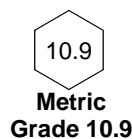
A Diameter (Inches)	Wrench Size	MARKING ON HEAD					
		SAE 2		SAE 5		SAE 8	
		Lbs.-Ft.	N-m	Lbs.-Ft.	N-m	Lbs.-Ft.	N-m
1/4"	7/16"	6	8	10	13	14	18
5/16"	1/2"	12	17	19	26	27	37
3/8"	9/16"	23	31	35	47	49	67
7/16"	5/8"	36	48	55	75	78	106
1/2"	3/4"	55	75	85	115	120	163
9/16"	13/16"	78	106	121	164	171	232
5/8"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



## METRIC SERIES TORQUE CHART

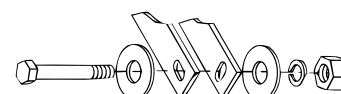
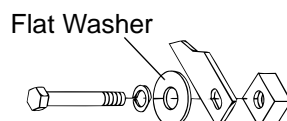
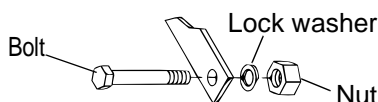


Metric Bolt Head Identification



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

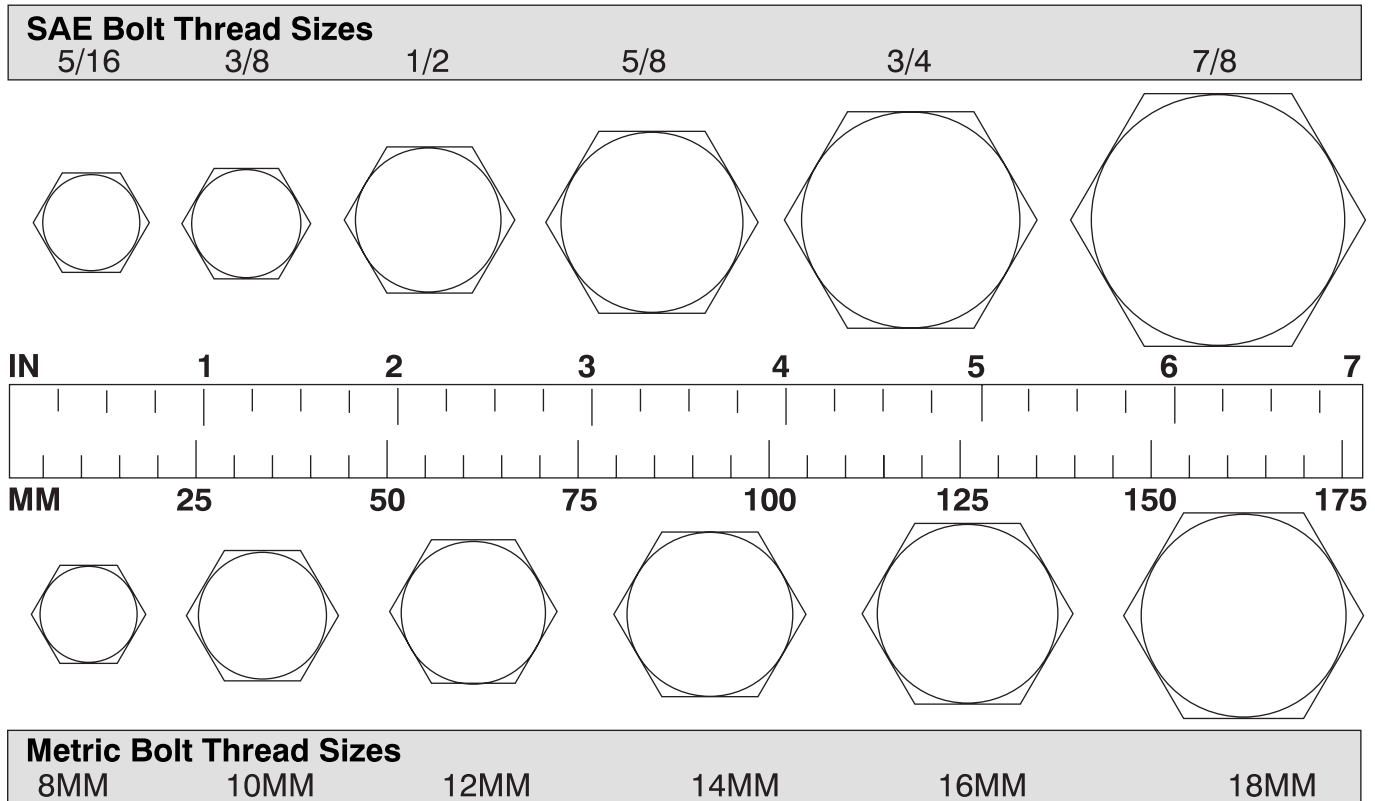


8/9/00



# 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

(Replacement Parts For All Models Except Mow'n Machines)

WEC Company, d/b/a 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.

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

**Woods Equipment  
Company**

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

815-732-2141 tel  
815-732-7580 fax

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# WARRANTY

(All Models Except Mow'n Machines)

Please Enter Information Below and Save For Future Reference.

Date Purchased: \_\_\_\_\_ From (Dealer): \_\_\_\_\_

Model Number: \_\_\_\_\_ Serial Number: \_\_\_\_\_

WEC Company, d/b/a 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 period for certain gearboxes are listed below:

Model No.	Part Warranted	Duration
1160, 1190, BB600, BB720, BB840, BB6000, BB7200, BB8400	Gearbox components	5 years from the date of delivery.
1130, 3180, 3240, BB48, BB60, BB72, BB84	Gearbox components	3 years from the date of delivery.
XT148, XT160, XT172, XT184	Rotary cutter gearbox	90 days from the date of delivery if used in rental or commercial applications.

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.

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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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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.

**This Warranty is effective only if the warranty registration card is returned within ten (10) days.**

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

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