

# WOODS

## 111868 LOADER MOUNTING KIT

### Loaders

**1020**

**1027**

mounting to

### Kubota Tractor Models

**M8200**

**M9000**

Includes

### Valve Kits

**56037**

**56038**

**56042**

### Hose Kits

**40542**

**40547**

**46047**

**46018**

**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.

## 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: 111868 Loader Mounting Kit**

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®**

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



# 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

- During installation, the tractor engine should be off, the key removed and the brakes locked. Do not disconnect hydraulic lines until attachments are removed or lowered to the ground and system pressure is released by operating valve levers. Never operate any hydraulic cylinders during any phase of the installation process.
- This Loader Mounting Kit is to be used only for the loaders and tractors specified in the Loader 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.

*(Safety Rules continued on next page)*



# SAFETY RULES

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



*(Safety Rules continued from previous page)*

- Do not connect a low-pressure hydraulic hose into a high-pressure system—it will burst the hose. Do not use a high-pressure hose in place of a low-pressure hose—it is possible to rupture the valve.
- Always wear relatively tight and belted clothing to avoid entanglement in moving parts. Wear sturdy, rough-soled work shoes and protective equipment for eyes, hair, hands, hearing, and head.
- Make sure attachment is properly secured, adjusted, and in good operating condition.
- Power unit must be equipped with ROPS or ROPS cab and seat belt. Keep seat belt securely fastened. Falling off power unit can result in death from being run over or crushed. Keep foldable ROPS systems in “locked up” position at all times.
- Whenever 3-point implements are attached to tractor, always check full range of operation for mechanical or hydraulic hose interference.
- Make sure all safety decals are installed. Replace if damaged. (See Safety Decals section for location.)
- Make sure shields and guards are properly installed and in good condition. Replace if damaged.

## OPERATION

- Do not allow bystanders in the area when operating, attaching, removing, assembling, or servicing equipment.
- Keep bystanders away from equipment.
- Do not operate or transport equipment while under the influence of alcohol or drugs.
- Always comply with all state and local lighting and marking requirements.
- Never allow riders. Do not lift or carry anybody on the loader or in the bucket or attachments.
- Power unit must be equipped with ROPS or ROPS cab and seat belt. Keep seat belt securely fastened. Falling off power unit can result in death from being run over or crushed. Keep foldable ROPS systems in “locked up” position at all times.
- Always sit in power unit seat when operating controls or starting engine. Securely fasten seat belt, place transmission in neutral, engage brake, and ensure all other controls are disengaged before starting power unit engine.

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

- Never work under a raised loader. Always lower loader to the ground with bucket or loader attachment in full roll-back position. Shut off tractor, set parking brake, and remove key. Operate valve levers to release any hydraulic pressure. If loader obstructs tractor maintenance, loader must be removed from tractor.

## MAINTENANCE

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

- Never work under a raised loader. Always lower loader to the ground with bucket or loader attachment in full roll-back position. Shut off tractor, set parking brake, and remove key. Operate valve levers to release any hydraulic pressure. If loader obstructs tractor maintenance, loader must be removed from tractor.

- Refer to loader 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.

# SAFETY RULES



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



- Keep all persons away from operator control area while performing adjustments, service, or maintenance.
- Tighten all bolts, nuts and screws to torque chart specifications. Check that all cotter pins are installed securely to ensure equipment is in a safe condition before putting unit into service.
- Make sure all safety decals are installed. Replace if damaged. (See Safety Decals section for location.)
- Make sure shields and guards are properly installed and in good condition. Replace if damaged.
- Do not disconnect hydraulic lines until all system pressure is relieved. Lower unit to ground, stop engine, and operate all hydraulic control levers.



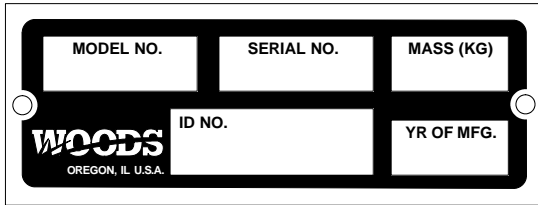
# SAFETY & INSTRUCTIONAL DECALS



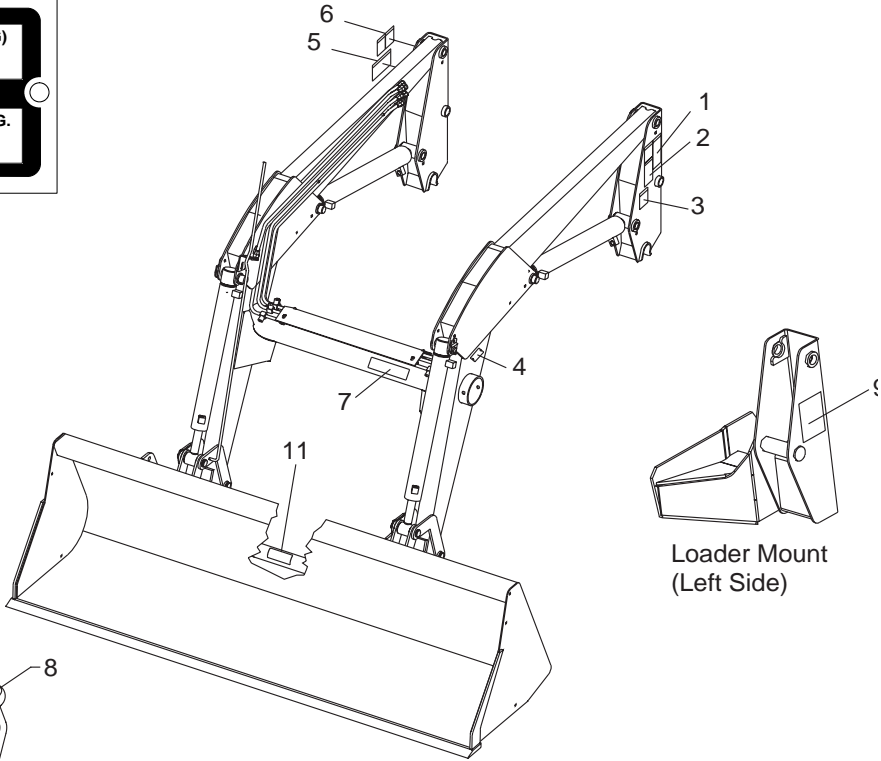
**ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!**



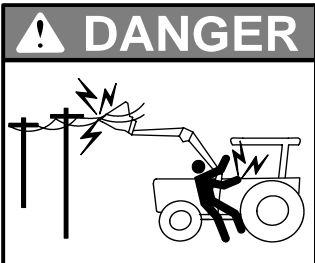
**Replace Immediately If Damaged!**



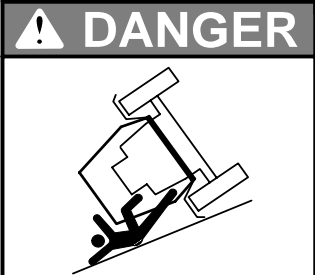
**4 - SERIAL NUMBER PLATE**



**2 - PN 56053**



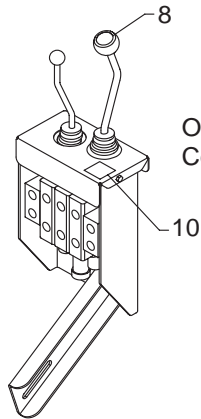
**⚠ DANGER**  
Serious injury or death can result from contact with electrical lines.



**⚠ DANGER**  
**ROLLOVERS CAN RESULT IN INJURY OR DEATH**

- Always use ROPS and seat belt.
- Add rear tractor ballast.
- Move wheels to widest setting.
- Avoid slope operation.
- Operate at low speeds.
- Carry load low.

56053-A



Optional Loader Control Valve

**3 - PN 56051**

**⚠ WARNING**

- Read and understand Operator's Manual before operating. (Replacement manuals are available from dealer or, in the United States and Canada, call 1-800-319-6637.)
- Keep others away when operating loader.
- Do not allow children or untrained persons to operate equipment.
- Lower loader to ground, stop engine, set park brake and remove key before leaving tractor seat.
- Failure to follow safety rules can result in serious injury or death.

56051-A

**1 - PN 56052**



**⚠ WARNING**  
**FALLING LOAD HAZARD**

To avoid injury or death

- Do not handle round bale or other shiftable load unless loader is equipped with approved attachments. (Read Operator's Manual.)
- Lift and carry only one bale at a time.
- Handle raised load with caution.
- Carry load low. 56052-A

(Safety Decals continued on next page)



# SAFETY & INSTRUCTIONAL DECALS

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

### Replace Immediately If Damaged!



(Safety Decals continued from previous page)

6 - PN 56050

<b>WARNING</b>  <b>CRUSHING HAZARD</b> <b>To avoid injury or death:</b> <ul style="list-style-type: none"> <li>■ Do not walk or work underneath a raised loader.</li> <li>■ Lower loader to ground before leaving tractor seat.</li> </ul>	<b>WARNING</b>  <b>FALLING HAZARD</b> <b>To avoid injury or death:</b> <ul style="list-style-type: none"> <li>■ Do not work from or allow riders on loader or its attachments.</li> </ul>
---	--

56050-A

5 - PN 19924

 <small>19924-B</small>	<b>WARNING</b> <b>HIGH-PRESSURE HYDRAULIC OIL LEAKS CAN PENETRATE SKIN RESULTING IN SERIOUS INJURY, GANGRENE OR DEATH.</b> <ul style="list-style-type: none"> <li>■ Check for leaks with cardboard; never use hand.</li> <li>■ Before loosening fittings: lower load, release pressure, and be sure oil is cool.</li> <li>■ Consult physician immediately if skin penetration occurs.</li> </ul>
----------------------------	---

9 - PN 56059

**LOADER MOUNTING INSTRUCTIONS**

Read Operator's Manual instructions before proceeding.

**To Remove Loader**

1. Park tractor on level surface with bucket flat on ground.
2. Dump bucket to take weight off mount pins and allow for stand installation. Set brake and shut off tractor.
3. Remove stands from crosstube and pin into brackets. (Pin location noted in mounting manual.)
4. Remove mount pins from loader upright.
5. Roll back bucket completely to raise uprights from mounts.
6. Shut off engine. Disconnect hydraulics. Back tractor away. Store mount pins in loader uprights.

**To Mount Loader**

1. Remove mount pins from uprights.
2. Drive tractor into loader slowly.
3. Shut off tractor. Connect hydraulics.
4. Dump bucket to lower upright into mounts.
5. Continue dumping bucket until uprights settle into mounts, pins can be installed and stands can be removed. Set brake and shut off tractor.
6. Install mount pins and clips. Remove stands and pin into crosstube.

56059-A

**WARNING**

**LOADER ATTACHMENT CAN FALL OFF IF NOT PROPERLY ATTACHED.**

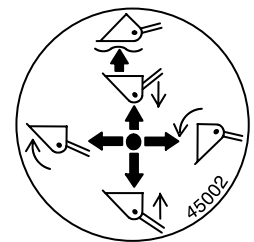
- Read operator's manuals for instructions.
- Position and align loader to attachment.
- Rotate coupler handles to full locked position. Lockpins must fully extend and engage into attachment retaining slots.
- Attachment mechanism must be functional and in good repair.
- Only use loader manufacturer approved attachments.
- For information on approved attachments, call 1-800-319-6637.

**Failure to follow these instructions can result in serious injury or death.**

56055-B

7 - PN 56055

8 - PN 45002  
(WHEN EQUIPPED)



11 - PN 45024

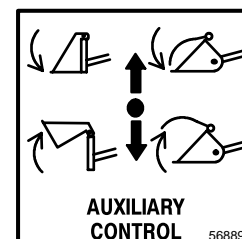
**WARNING**

**LOADER ATTACHMENT CAN FALL OFF IF NOT PROPERLY ATTACHED.**

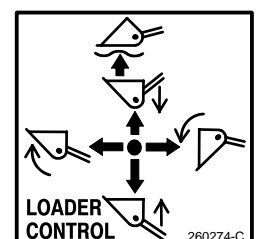
Only use loader manufacturer approved attachments.  
Failure to do so can cause serious injury or death.

45024-A

10 - PN 56889  
(WHEN EQUIPPED)



8 - PN 260274  
(WHEN EQUIPPED)





# LOADER MOUNT INSTALLATION

## WARNING

■ Only use 111868 Loader Mounting Kit for mounting Woods 1020/1027 loaders to Kubota M8200 and M9000 tractors. Any other use or modification of this 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.

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

## 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.

## IMPORTANT

■ A front wheel track setting of 60.6" is the widest setting allowed by the tractor manufacturer for 2WD models using front end loaders.

## TRACTOR PREPARATION

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

1. Shut off engine and set parking brake during installation.
2. Remove the tractor front weights and front weight bracket if equipped. Remove tool box on tractors with cab.
3. **Cab tractors only** – Remove four bolts (Figure 1) for cab tractor mountings.

## IMPORTANT

■ Clean threaded holes in the tractor chassis thoroughly, using a tap of the proper size. Paint, rust, or debris in the threads may not permit cap screws to be installed and tightened correctly.

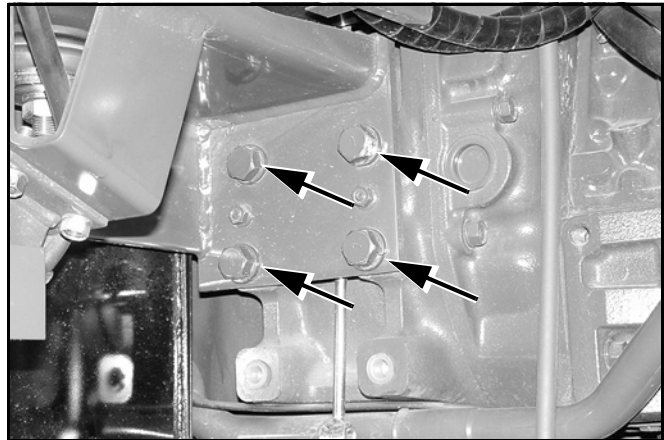


Figure 1 Remove 4 bolts on each side



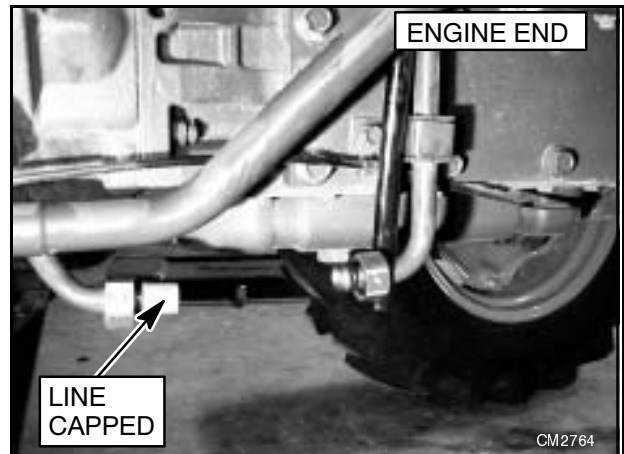
## LOADER MOUNT INSTALLATION Cont'd

### Remove Tractor Connector Tube or Adapter Block

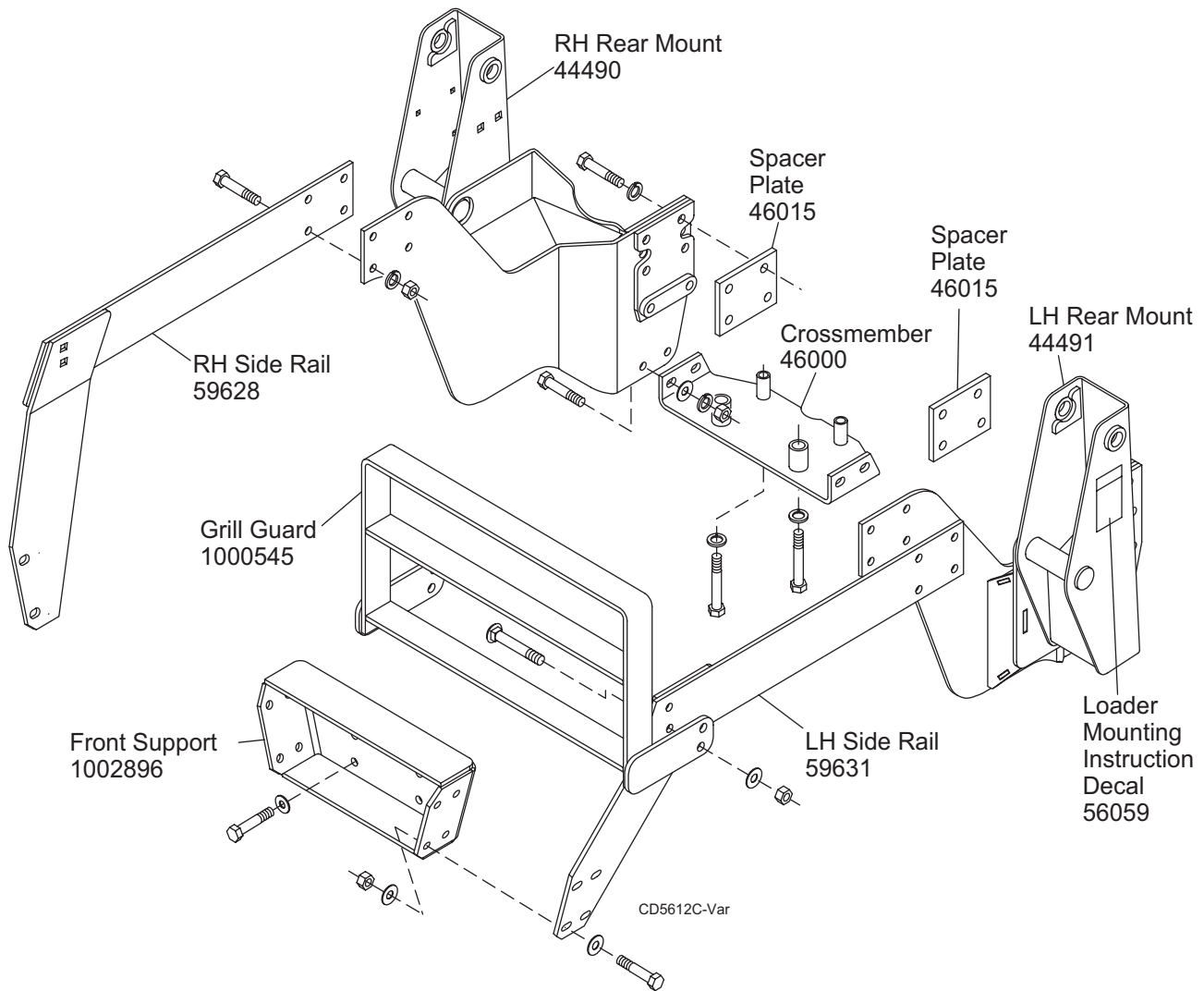
Follow this procedure only if using #40547 or #46047 Hose Kits.

**NOTE:** It is easier to remove the connector tube or adapter block before installing the right mount.

1. Remove tractor hydraulic line connector tube or adapter block (if equipped) as shown in Figure 2.
2. To prevent the line from leaking during installation of the loader mounts, be sure to plug the fitting. A 3/4" plastic cap taken from an adapter in the hose kit may be used.



**Figure 2** Hydraulic connector Tube Removed (Rear line capped with 3/4" plastic cap)



**Figure 3** 111868 Loader Mounting Kit

## LOADER MOUNT INSTALLATION Cont'd

### Install Crossmember

**NOTE:** Leave all cap screws loose until loader mounts are completely installed.

1. Install #46000 crossmember to the underside of the tractor clutch housing, using cap screws and hardened flat washers as shown in Figure 4.

1. 307502 M18 x 1.5 x 85mm Cap screw
2. 57798 3/4 Hardened flat washer
3. 67376 M12 x 1.25 x 80mm Cap screw
4. 57816 1/2 Hardened flat washer

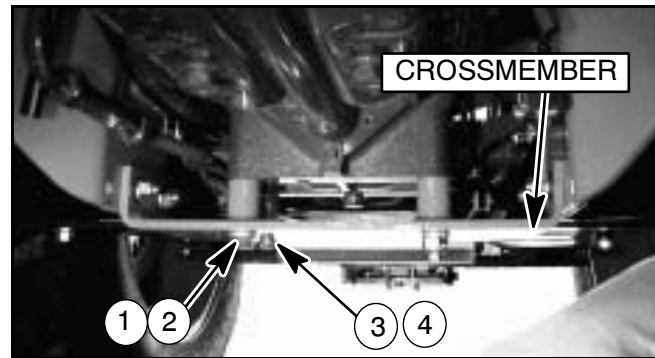


Figure 4 Crossmember Installed

### Install Rear Loader Mounts

1. Install #44490 right rear mount and #44491 left rear mount to tractor chassis and crossmember.

**NOTE:** Non-cab tractors will need #46015 spacer plate installed between the rear mounts and the tractor.

2. Use cap screws (1) and hardened flat washers (2) at tractor clutch housing as shown in Figure 5.  
3. Use cap screws (3) and hardened flat washers (4) to attach mount to crossmember.

1. 46019 M18 x 1.5 x 70mm Cap screw
2. 57798 3/4 Hardened flat washer
3. 12274 5/8 x 2-1/4 Cap screw
4. 57817 5/8 Hardened flat washer (hidden)
6. 230 5/8 Hex nut (hidden)

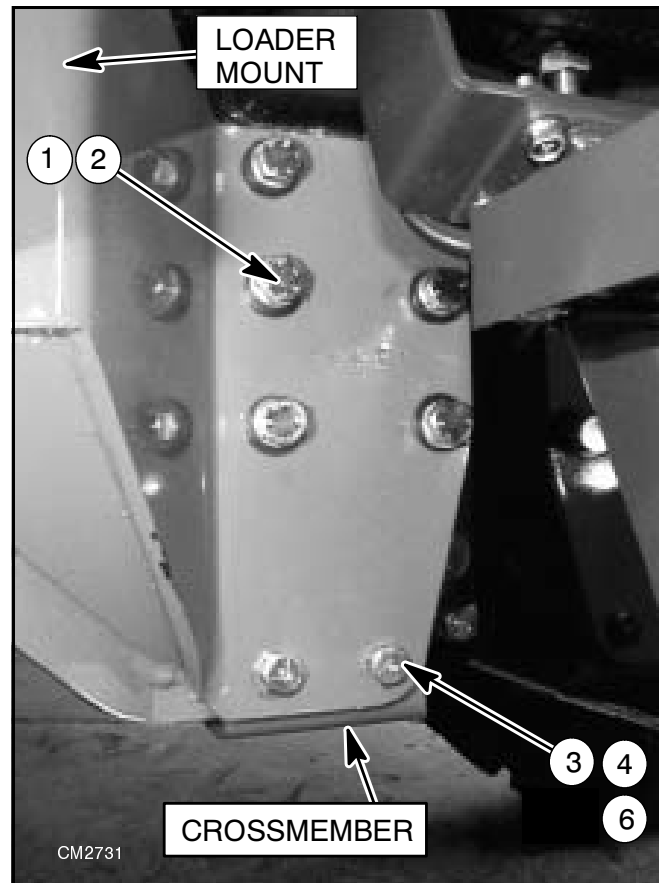


Figure 5 Left Rear Mount Installed

## LOADER MOUNT INSTALLATION Cont'd

### Install Front Mount Bracket

1. Install front mount bracket (3) to tractor steering housing, using cap screws (17) and hardened flat washers (11) as shown in Figure 6.

- 3. 1002896 Front mount bracket
- 11. 57817 5/8 Hardened flat washer
- 17. 307425 M16 x 1.5 x 35mm Cap screw

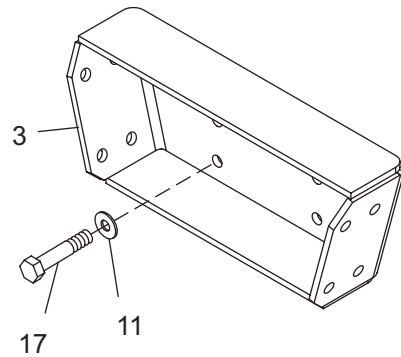
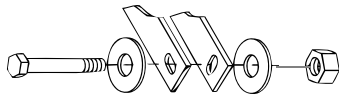


Figure 6 Front Mount Bracket

### Install Side Rails

1. Install #59628 right side rail and #59631 left side rail to outside of rear mounts as shown in Figure 7. Secure with cap screws (13), hardened flat washers (11), and hex nuts (12).

2. Secure at front support with cap screws (13), flat washers (11), and hex nuts (12). Flat washers are installed over the slot as shown below.



- 11. 57817 5/8 Hardened flat washer
- 12. 230 5/8 Hex nut
- 13. 4548 5/8 NC x 1-3/4 Cap screw

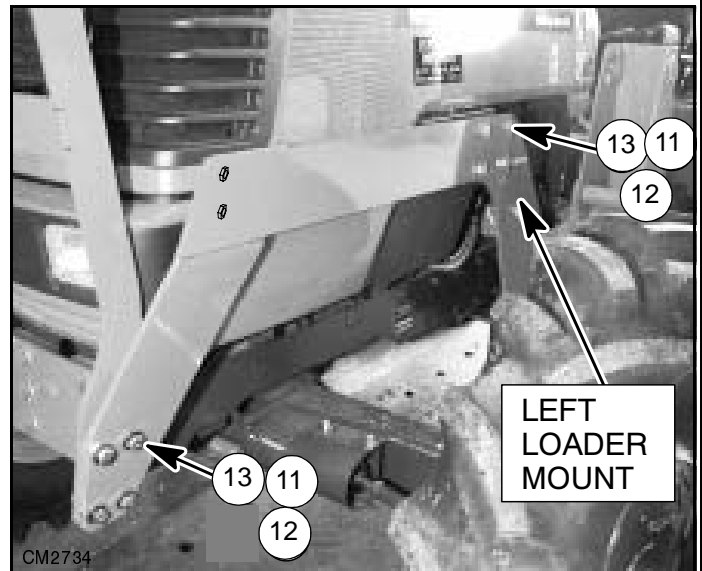


Figure 7 Side Rails Installed to Rear Mounts & Front Support

## LOADER MOUNT INSTALLATION Cont'd

### Install Grill Guard

1. Install grill guard outside the left and right side rails as shown in Figure 8.

- 5. 59628 Right side rail (not shown)
- 6. 59631 Left side rail
- 11. 57817 5/8 Hardened flat washer
- 12. 230 5/8 Hex nut
- 13. 4548 5/8 NC x 1-3/4 Cap screw

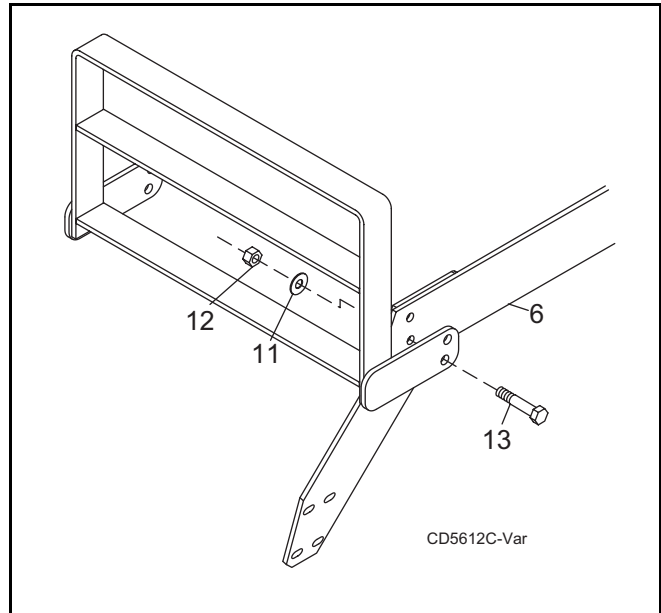


Figure 8 Grill Guard Installed

### Torque Hardware

1. Tighten all hardware to specifications given.

TORQUE SPECIFICATIONS			
Cap Screw	Qty	Wrench Size	Required Torque
M12 x 1.25 x 80mm	2	18mm	76 lbs.-ft.(103 N-m)
M16 x 1.50 x 35mm	6	24mm	133 lbs.-ft.(181 N-m)
M18 x 1.50 x 85mm	2	27mm	194 lbs.-ft.(263 N-m)
M18 x 1.50 x 70mm	12	27mm	194 lbs.-ft.(263 N-m)
5/8 NC x 1-3/4	8	15/16"	170 lbs.-ft.(230 N-m)
5/8 NC x 2-1/4	12	15/16"	170 lbs.-ft.(230 N-m)

# CONTROL VALVE & HOSE KIT 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.**
- Air in hydraulic systems can cause erratic operation and allow 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 operating or allowing anyone to approach the equipment.

## 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.
- 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.

## IMPORTANT

- Hydraulic valves must be connected to the tractor hydraulic system as shown in this loader mounting kit manual.
- If hydraulic lines are not connected as shown in the mounting kit manual, the loader control valve may be damaged. A blocked outlet (Return) or improper hose connection will cause pressurized oil to enter the return circuit and damage the valve.

**COMPLETION OF THIS INSTALLATION REQUIRES CONNECTION TO THE LOADER, ASSEMBLED ACCORDING TO INSTRUCTIONS IN MANUAL #56060.**

**SHUT OFF ENGINE AND LOCK PARKING BRAKE BEFORE INSTALLING HOSE KITS. CHECK ALL PARTS IN HOSE KIT AGAINST PACKING LIST.**

**THE FOLLOWING INSTRUCTIONS ARE FOR OPERATING THE LOADER USING THE TRACTOR HYDRAULIC REMOTE CONTROL LEVERS:**

- 1** #40542 Hose Kit  
(For use with tractor remotes)..... Page 12
- 2** #56037 Control Valve Kit & #40547 Hose Kit  
(For use with loader joystick) ..... Page 15
- 3** #56038 Cable Control Valve Kit & #46047 Hose Kit (For use  
on cab tractors with cable-operated control valve)..... Page 21

# 1

## #40542 Hose Kit (For use with tractor remotes)

**NOTE:** To use this hydraulic connection, the tractor must be equipped with two hydraulic levers and four tractor hydraulic couplers.

### Install Hose Clamp Bracket & Channel

1. Install #40539 hose clamp bracket to right loader mount, using carriage bolts (3), flat washers (4), lock washers (5), and nuts as shown in Figure 9.

**NOTE:** Bracket must be installed before the loader is mounted to the tractor.

2. With loader in mounting position, connect loader supply hoses to the loader feedlines as shown in Figure 11.

3. Install #40548 hose clamp channel to hose clamp bracket. Clamp hoses as shown in Figure 10.

- 5. 40539 Hose clamp bracket
- 6. 40548 Hose clamp channel
- 10. 35735 3/8 NC x 2-1/2 Carriage bolt
- 11. 66840 3/8 NC Knob
- 12. 3632 5/8 Flat washer
- 13. 1286 5/8 Lock washer
- 14. 230 5/8 NC Hex nut
- 15. 5607 5/8 NC x 1-1/2 Carriage bolt

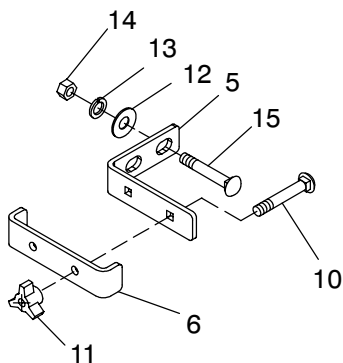


Figure 9 Hose Clamp Assembly

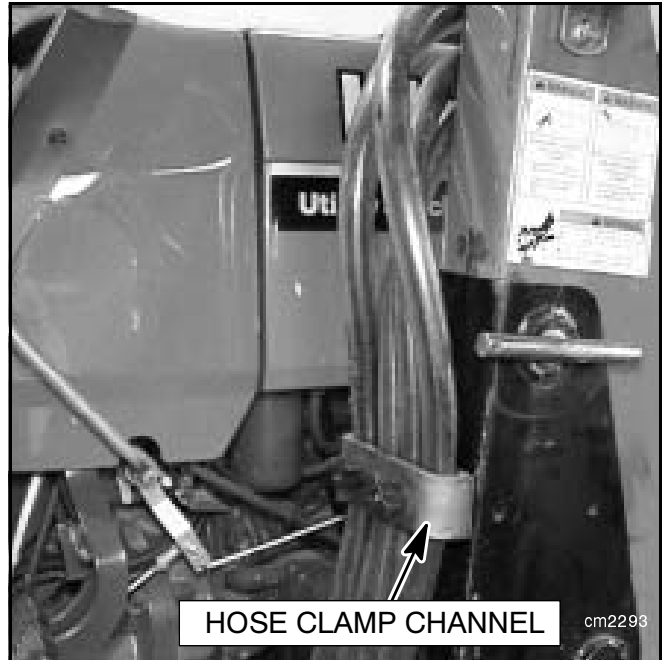
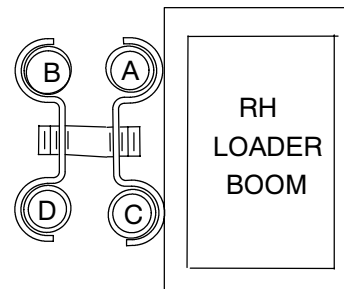


Figure 10 Hose Clamp Bracket & Channel Installed



- A - BUCKET CYL. BASE END (DUMP)
- B - BUCKET CYL. ROD END (ROLLBACK)
- C - BOOM CYL. ROD END (DOWN)
- D - BOOM CYL. BASE END (UP)

Figure 11 Loader Feedline Identifications  
(viewed from rear)

# 1 #40542 Hose Kit *Cont'd*

## Route Hoses & Install Hose Support

1. Route hydraulic hoses along loader mount, under right side of fuel tank, and over the rear axle. Be sure to avoid contact with 3-point linkage, brake pedals, and other moveable tractor components.

### IMPORTANT

■ Hoses must be routed so that they are not pinched bent sharply, or chafed during operation. Hoses must not interfere with any tractor control operation or contact any moving parts.

2. Attach #40543 hose support to tractor fuel tank support channel, using existing tractor hardware from the fuel tank support channel. Route hoses through hose support.

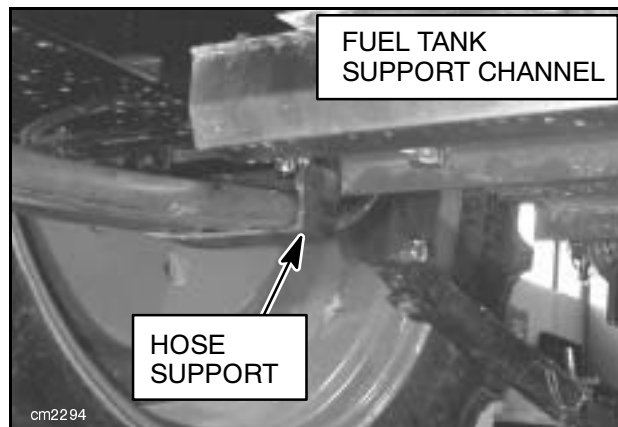


Figure 12 Hose Support Installed

## Install Fittings to Hoses

1. Attach two adapters (1), 90-degree elbows (2), and quick couplers A (not included), to boom cylinder hoses.

2. Attach two 90-degree elbows (2) and quick couplers (not included) to bucket cylinder supply hoses.

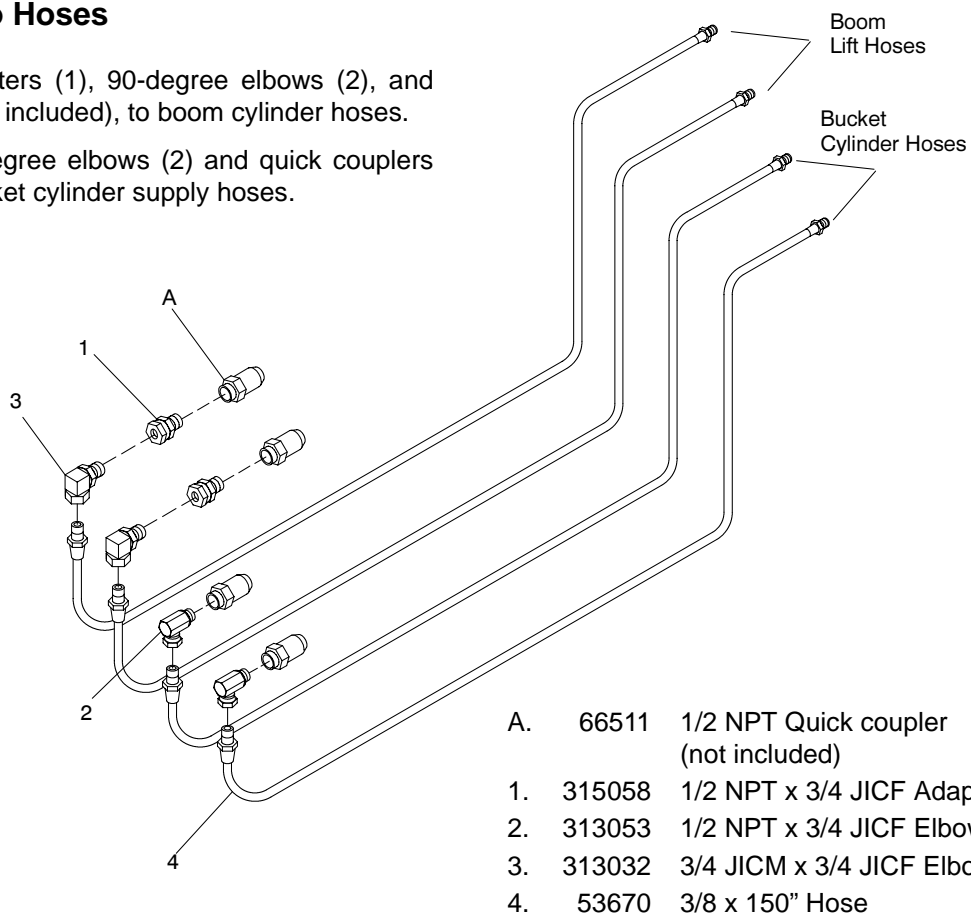


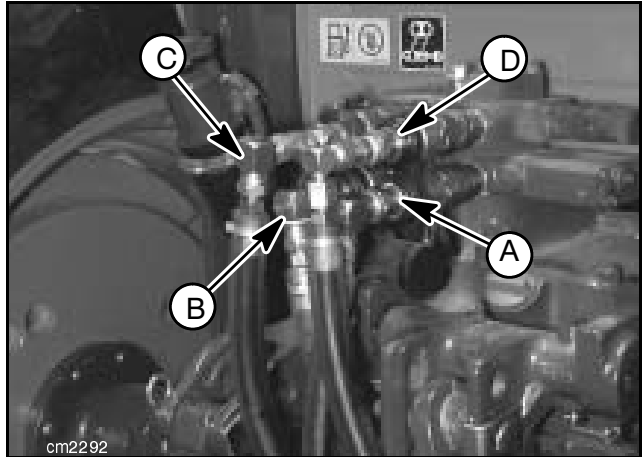
Figure 13 Hose Fitting Identifications



## 1 #40542 Hose Kit *Cont'd*

### Connect Hoses to Tractor

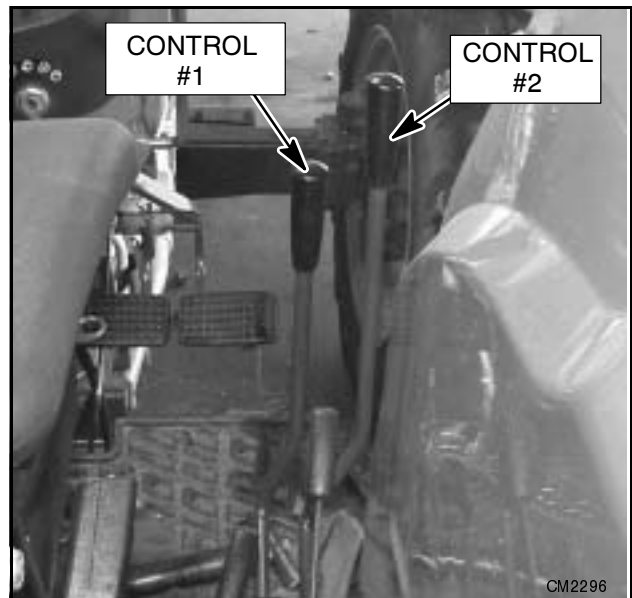
1. Connect hydraulic hoses to tractor hydraulic couplers as shown in Figure 14.
2. Refer to tractor operator's manual for operating the tractor hydraulic levers.



**Figure 14** Hose Connections to Tractor Hydraulic Couplers

### Verification of Control Movements

1. Comply with all Safety Rules and start the tractor.
  2. Check that all hydraulic control lever positions operate the loader movements correctly as shown in Figure 15.
  3. If loader movements do not respond correctly, shut off tractor, relieve pressure, and reconnect properly. Loader control movements must be correct before proceeding.
  4. Once all loader functions are correct, start the tractor and operate the loader to check for leaks. Purge any remaining air from the hydraulic system.
  5. When hose routings and correct loader operations are verified, identify each circuit by placing a matching colored band around the male and female quick-disconnect coupler set. The colored bands will make re-installation easier when the loader is removed from the tractor.
  6. Be sure that adequate slack is left in the hoses so they can move as the loader moves through its full range of motion.
7. Before operating the loader, make sure that the Pre-Delivery, Delivery, and Pre-Operation Checklists from the Operator section in the Loader Operator's Manual have been completed.



**Figure 15** Tractor Hydraulic Control Levers

- Control #1, Handle forward - Boom down
- Control #1, Handle back - Boom up
- Control #2, Handle forward - Dump bucket or attachment
- Control #2, Handle back - Rollback bucket or attachment

**2**

## #56037 Control Valve & #40547 Hose Kit (For use with loader joystick)

### General Description

This hydraulic connection uses a single lever control valve mounted on the right loader mount with a bracket as shown in Figure 16.



**Figure 16** #56037 Control Valve Installed  
(Typical installation)

## 2 #56037 Valve Kit & #40547 Hose Kit *Cont'd*

### Assemble Control Valve Kit

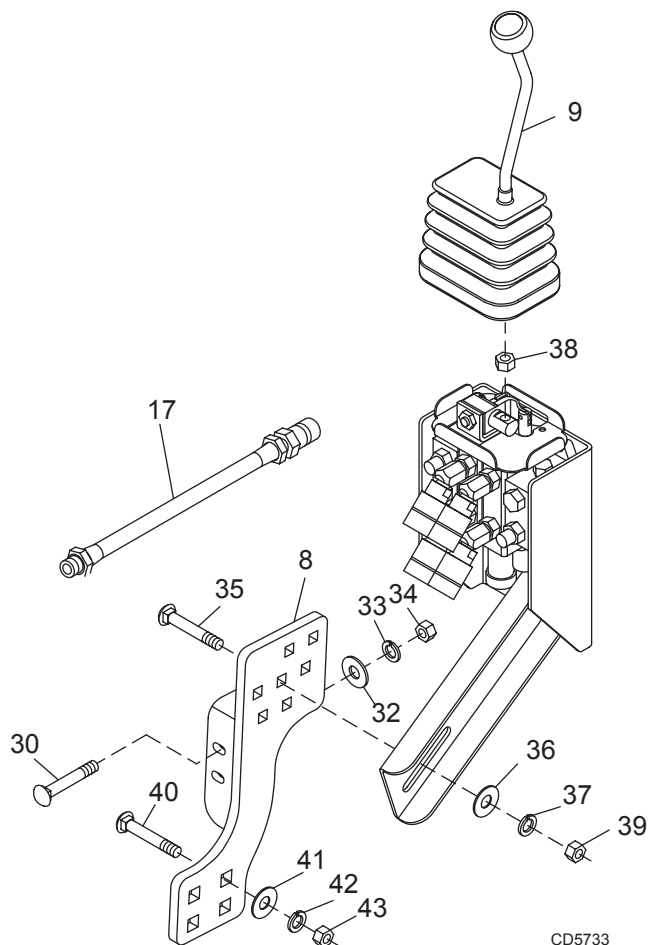
1. Install the control lever:
  - a) Thread end of handle (9) into valve.
  - b) Align handle so that end with longer bend is pointing toward the adapter fittings. Make sure bends are in line with front and rear of valve.
  - c) Tighten jam nut (38) already installed on handle.
  - d) Slide boot down over boot bracket.
2. The valve mounting plate contains two sets of holes. Select the holes that will position the valve in the desired location. Install the valve mounting plate (8) to the right loader mount, using two 5/8 NC x 1-1/2 carriage bolts (40), flat washers (41), lock washers (42), and nuts (43) as shown.
3. Install 3/8 NC x 1-1/4 carriage bolt (30) through-back of mounting shoe, securing with flat washer (32), lock washer (33), and nut (34).

Carriage bolts must be installed so that the head is inside the loader mount.

4. Attach the valve mount to the valve plate so that the control valve will be in the correct position for operation. Secure with three 1/2 NC x 1-1/2 carriage bolts (35), flat washers (36), lock washers (37), and nuts (39) as shown.

5. Control valve must be positioned so that movement of tractor controls is not restricted. Maintain at least 6" spacing between control valve kit and any tractor control (brake pedals, accelerator, hand throttle, or hydraulic levers.) Check for clearances in the operating position.

6. Torque all hardware to specifications given below.



CD5733

**Figure 17** 2-Spool Control Valve Kit Assembly

- |     |       |                              |
|-----|-------|------------------------------|
| 8.  | 46340 | Valve mounting plate         |
| 9.  | 56254 | Bent handle                  |
| 17. | 56095 | 3/8 x 54" Hose               |
| 30. | 20973 | 3/8 NC x 1-1/4 Carriage bolt |
| 32. | 565   | 3/8 Flat washer              |
| 33. | 838   | 3/8 Lock washer              |
| 34. | 835   | 3/8 NC Hex nut               |
| 35. | 12735 | 1/2 NC x 1-3/4 Carriage bolt |
| 36. | 3598  | 1/2 Flat washer              |
| 37. | 855   | 1/2 Lock washer              |
| 38. | 13859 | Jam nut                      |
| 39. | 1093  | 1/2 Hex nut                  |
| 40. | 5607  | 5/8 NC x 1-1/2 Carriage bolt |
| 41. | 3632  | 5/8 Flat washer              |
| 42. | 1286  | 5/8 Lock washer              |
| 43. | 230   | 5/8 Hex nut                  |

#### TORQUE SPECIFICATIONS

Bolt	Wrench	
	Size	Required Torque
3/8 NC x 1-1/4	9/16"	35 lbs.-ft. (47 N-m)
1/2 NC x 1-1/2	3/4"	85 lbs.-ft.(115 N-m)
5/8 NC x 1-1/2	15/16"	170 lbs.-ft.(230 N-m)

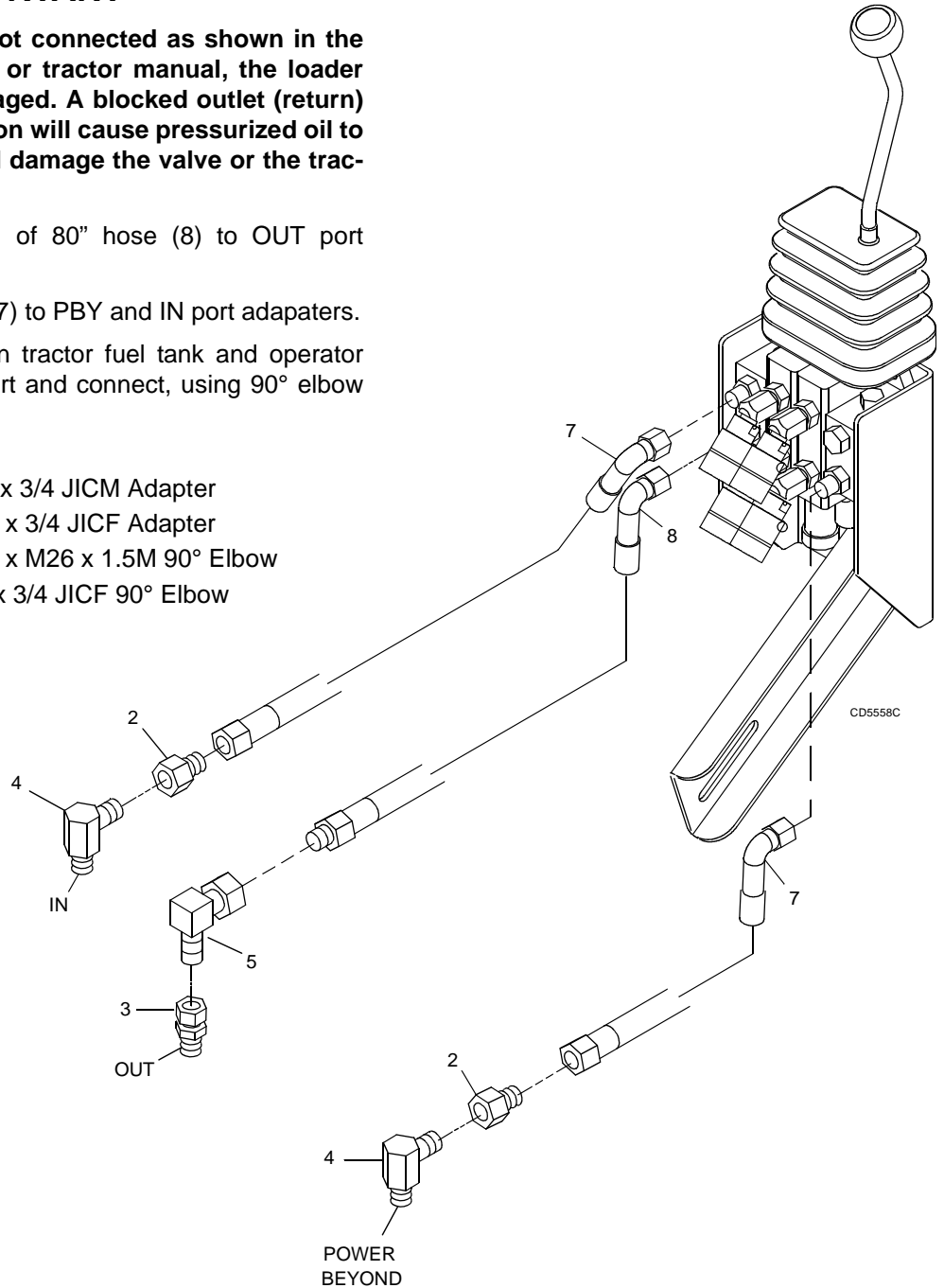
**Assemble #40547 Hose Kit**

**IMPORTANT**

■ If hydraulic lines are not connected as shown in the mount installation manual or tractor manual, the loader control valve may be damaged. A blocked outlet (return) or improper hose connection will cause pressurized oil to enter the return circuit and damage the valve or the tractor hydraulic system.

1. Connect 90-degree end of 80" hose (8) to OUT port adapter and tighten.
2. Connect two 54" hoses (7) to PBY and IN port adapters.
3. Route 80" hose between tractor fuel tank and operator platform to tractor Return port and connect, using 90° elbow (5) and adapter (3).

- |    |        |                                 |
|----|--------|---------------------------------|
| 2. | 315038 | 1/2 NPTF x 3/4 JICM Adapter     |
| 3. | 315058 | 1/2 NPTM x 3/4 JICF Adapter     |
| 4. | 40549  | 1/2 NPTM x M26 x 1.5M 90° Elbow |
| 5. | 313032 | 3/4 JICM x 3/4 JICF 90° Elbow   |
| 7. | 360130 | 54" Hose                        |
| 8. | 57911  | 80" Hose                        |



**Figure 17 #40547 Hose Kit Assembly**

## 2 #56037 Valve Kit & #40547 Hose Kit *Cont'd*

### Install Fittings to Tractor Hydraulic Line

Refer to Figure 17 and Figure 18.

1. If not done during installation of right rear loader mount, remove the tractor hydraulic line connector tube or adapter block (if equipped) as shown in Figure 2.

**NOTE:** If 90-degree elbow (4) includes a nut and sleeve, discard them.

2. Connect adapters (2) to each 90-degree elbow (4) and tighten. **NOTE:** Use sealant on pipe threads.

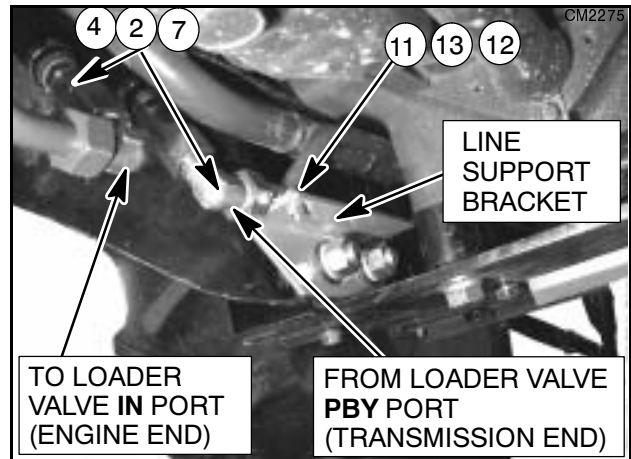
3. Attach adapters (2) to PBY and IN hoses. Tighten finger tight.

4. Route IN hose inside the right loader mount. Install elbow onto end of tractor hydraulic line as shown in Figure 18.

5. Route PBY hose inside right loader mount. Remove plastic cap and install onto transmission end of tractor hydraulic line as shown in Figure 18.

6. Point elbows up and slightly out to clear the hydraulic Return line as shown.

7. Tighten elbows to tractor line and tighten hoses to adapters.



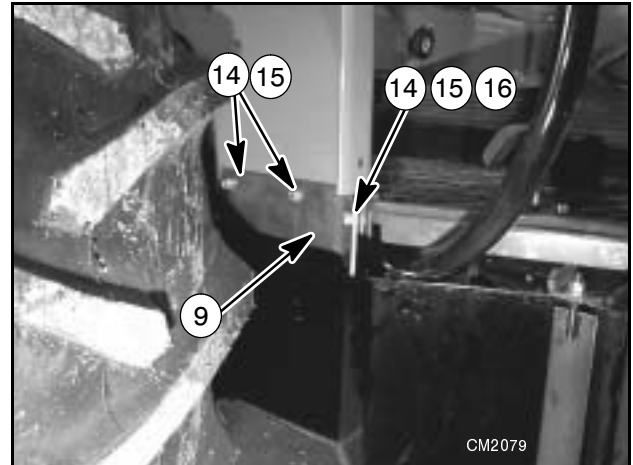
**Figure 18** Hose Hanger Bracket Installed

- |     |        |                                 |
|-----|--------|---------------------------------|
| 2.  | 315038 | 1/2 NPTF x 3/4 JICM Adapter     |
| 4.  | 40549  | 1/2 NPTM x M26 x 1.5M 90° Elbow |
| 7.  | 360130 | 54" Hose                        |
| 11. | 480261 | Clamp                           |
| 12. | 6128   | 1/4 NC Lock nut                 |
| 13. | 300057 | 1/4 NC x 3/4 Cap screw          |

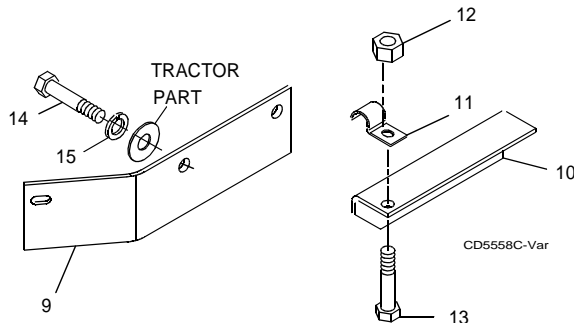
## 2 #56037 Valve Kit & #40547 Hose Kit *Cont'd*

### Install Hose Retainer & Line Support Bracket

1. Remove the cap screws that hold the tractor fender to the operator platform and install the hose retainer.
2. Position the hose retainer to keep the hoses from touching the tractor tire as shown in Figure 20. To attach the hose retainer, use new cap screw (14), lock washer (15), and flat washer (tractor part) as shown in Figure 19 and Figure 20.
3. Refer to Figure 18. Install the line support bracket as shown by removing nuts from right side of cross-member then re-installing. Refer to Figure 19.
4. Attach the line clamp (11) and secure the line, using cap screw (13) and nut (12).



**Figure 20** Hose Retainer Installed



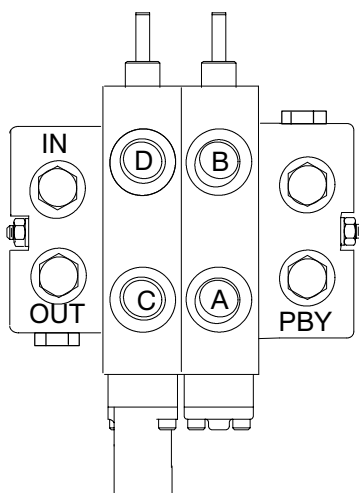
**Figure 19** Hose Retainer & Line Support Bracket

9.	58859	Hose retainer
10.	40546	Line support bracket
11.	480261	Clamp
12.	6128	1/4 Lock nut
13.	300057	1/4 x 3/4 Cap screw
14.	307129	M8 x 1.25 x 30mm Cap screw
15.	2472	5/16 Lock washer
16.	—	Tractor part

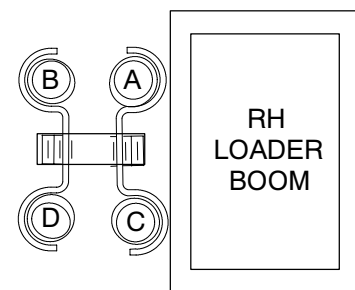
### Connect Feedline Hoses

1. Connect 54" hoses from hose kit to valve work ports A, B, C, and D as shown in Figure 21.

2. Identify the appropriate feedline locations and connect opposite end of each hose to loader feedlines as shown in Figure 21.



- A - BUCKET CYL. BASE END (DUMP) - **RED**
- B - BUCKET CYL. ROD END (ROLLBACK) - **BLUE**
- C - BOOM CYL. ROD END (DOWN) - **YELLOW**
- D - BOOM CYL. BASE END (UP) - **GREEN**



LOADER FEEDLINES

**Figure 21** #56037 Control Valve & Loader Feedline Connections

## 2 #56037 Valve Kit & #40547 Hose Kit *Cont'd*

### Torque Hardware & Tighten Fittings

1. Torque all hardware to specifications given below.
2. Check to be sure all hydraulic fittings are tight.

TORQUE SPECIFICATIONS			
Bolt	Qty	Wrench	
		Size	Required Torque
1/4 x 3/4	1	7/16"	10 lbs.-ft. (13 N-m)
5/16 x 3/4	2	1/2"	19 lbs.-ft. (26 N-m)
3/8 x 1-1/2	4	9/16"	35 lbs.-ft. (47 N-m)
1/2 x 1-1/2	2	3/4"	85 lbs.-ft. (115 N-m)
5/8 x 1-1/2	2	15/16"	170 lbs.-ft. (230 N-m)
M8 x 1.25	2	13mm	15 lbs.-ft. (20 N-m)

### Verification of Control Movements

1. **Mount loader to tractor:** Remove mount pins from loader uprights. Align tractor with loader and slowly drive tractor into loader. Shut off tractor.

2. Connect loader feedline hoses to control valve hydraulic couplers.

**NOTE:** At least 6" spacing should be maintained between valve, bracket, or hoses and any tractor control (brake pedals, accelerator, hand throttle, or hydraulic levers).

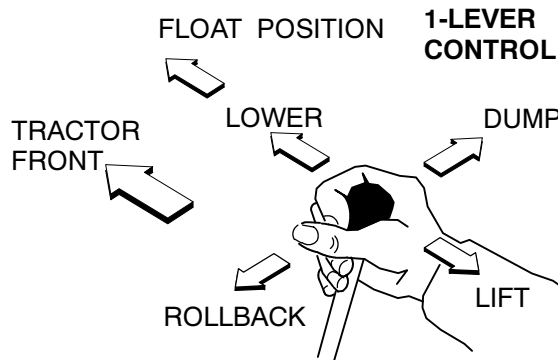
3. Comply with all Safety Rules and start the tractor.

4. Check that all hydraulic control lever positions operate the loader movements correctly as shown in Figure 22.

5. If loader movements do not respond correctly, shut off tractor, relieve pressure, and reconnect properly. Loader control movements must be correct before proceeding.

6. Once all loader functions are correct, start the tractor and operate the loader to check for leaks. Purge any remaining air from the hydraulic system.

7. When hose routings and correct loader operations are verified, identify each circuit by placing a matching colored band around the male and female quick-disconnect coupler set. The colored bands will make re-installation easier when the loader is removed from the tractor



**Figure 22** Single Lever Control Operation

- Handle Forward - Boom down
- Handle forward to limit - Float position
- Handle back - Boom up
- Handle to right - Dump bucket or attachment
- Handle to left - Rollback bucket or attachment

8. Be sure that adequate slack is left in the hoses so they can move as the loader moves through its full range of motion.

9. Before operating the loader, make sure that the Pre-Delivery, Delivery, and Pre-Operation Checklists from the Operator section in the Loader Operator's Manual have been completed.



# 3

## #56038 Cable Control Kit & #46047 Hose Kit (For cab tractors only)

### Install Control Valve (2-Spool #56038 or 3-Spool #56042)

1. Install valve assembly to valve guard, using three 3/8 x 1-1/2 carriage bolts (1), 3/8 lock washers (2), and hex nuts (3).

2. Install valve/guard assembly to right loader mount, using three 3/8 x 1-1/2 carriage bolts (1), 3/8 lock washers (2), and hex nuts (3).

3. **For 3-spool valve only:** Use two 3/8 x 3/4 carriage bolts (4) and lock nuts (5) to hold valve guard to mounting shoe.

**NOTE:** Carriage bolts must be installed so that heads are inside loader mount frame.

- |    |        |  |
|----|--------|--|
| 1. | 301104 | 3/8 NC x 1-1/2 Carriage bolt                           |
| 2. | 838    | 3/8 Lock washer  |
| 3. | 835    | 3/8 Hex nut  |
| 4. | 24597  | 3/8 NC x 3/4 Carriage bolt<br>(for 3-spool valve only) |
| 5. | 14350  | 3/8 NC Flange lock nut<br>(for 3-spool valve only)     |
| 6. | 56250  | 2-spool valve  |
|    | or     |  |
| 6. | 56270  | 3-spool valve  |
| 7. | 46045  | Valve guard  |

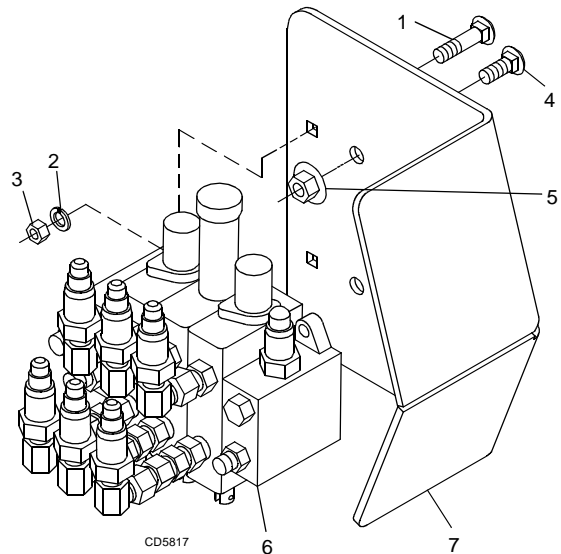
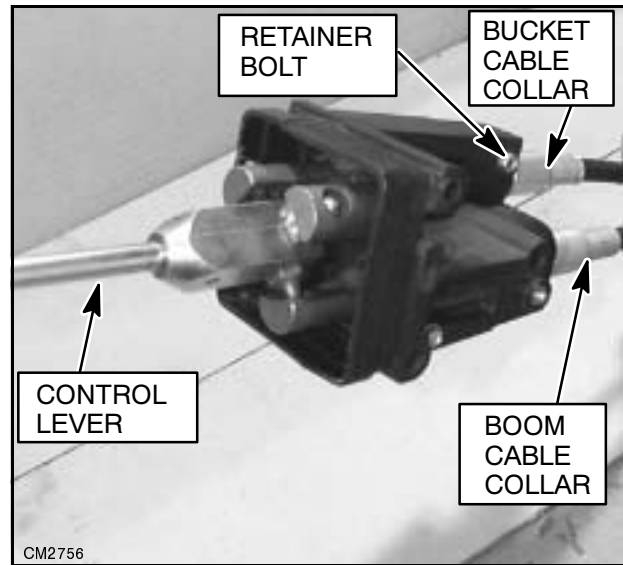


Figure 23 Valve Guard Assembly

### 3 #56038 Valve Kit & #46047 Hose Kit *Cont'd*

#### Connect Controller to Cables

1. Slide the rubber control boot up out of the way. Orient the controller as shown in Figure 24.
2. Using a vice, clamp the controller loosely.
3. Remove both cable retainer bolts.
4. Push the control lever to expose the bucket cable actuator at the bottom of the controller. Thread the cable end to the cable actuator and tighten.
5. Push the control lever and insert the bucket cable collar into the control lever body. Replace the cable retainer bolt and tighten.
6. Push the control lever to expose the boom cable actuator at the bottom of the controller. Thread the cable end to the cable actuator and tighten.
7. Release the control lever and insert the boom cable collar into the control lever body. Replace the cable retainer bolt and tighten.
8. Remove the controller from the vice.



**Figure 24** Attaching Control Cables to Control Lever

### 3 #56038 Valve Kit & #46047 Hose Kit *Cont'd*

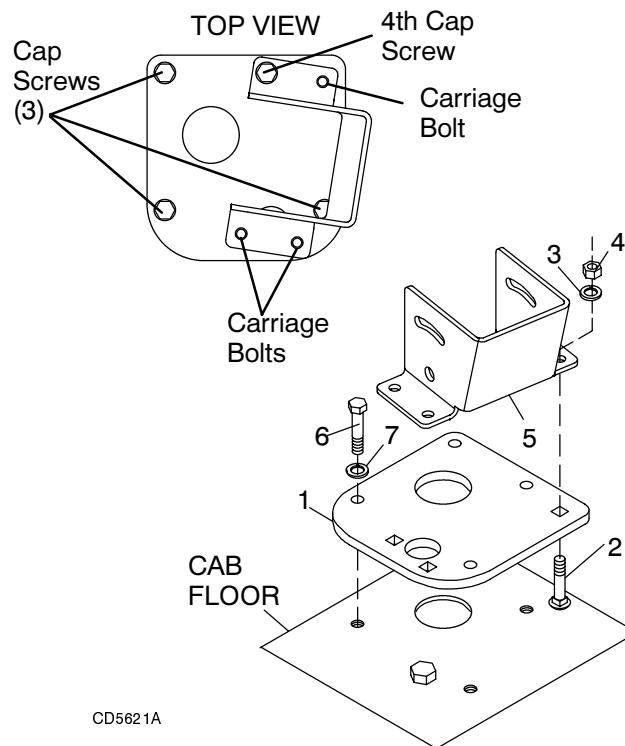
#### Install Controller Stand Bracket

**NOTE:** Use #46049 adapter plate and hardware from #46047 Hose Kit.

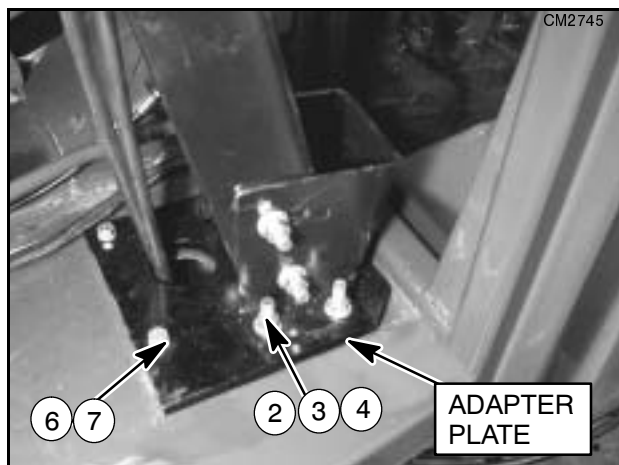
1. Locate the control cable access hole under the rubber floor mat in the right front corner of the tractor cab.
2. Insert three carriage bolts (2) into the adapter plate (1) as shown in Figure 26.
3. Position the adapter plate over the holes in the cab floor and install cap screws (6) and lock washers (7) as shown in Figure 26. Torque to specifications given.

**NOTE:** Before tightening three cap screws, verify that the fourth cap screw will line up with the hole in the cab floor.

4. Install controller mount bracket on top of the pre installed carriage bolts and fasten with lock washers (3) and nuts (4) as shown in Figure 25.
5. Install fourth cap screw as shown in Figure 26.
6. Torque all hardware to specifications given.
7. Trim the rubber floor mat and foam padding to fit around the adapter plate.



**Figure 26** Control Stand Bracket



**Figure 25** Assembled Control Stand Bracket

- |    |        |                              |
|----|--------|------------------------------|
| 1. | 46049  | Adapter plate                |
| 2. | 20973  | 3/8 NC x 1-1/4 Carriage bolt |
| 3. | 838    | 3/8 Lock washer              |
| 4. | 835    | 3/8 NC Hex nut               |
| 5. | 56215  | Controller mount bracket     |
| 6. | 307129 | M8 x 1.25 x 30mm Cap screw   |
| 7. | 2472   | 5/16 Lock washer             |

#### TORQUE SPECIFICATIONS

Wrench		
Bolt	Size	Required Torque
M8 x 1.25	13mm	15 lbs.-ft.(20 N-m)
3/8 NC x 1.5	9/16"	35 lbs.-ft.(47 N-m)

### 3 #56038 Valve Kit & #46047 Hose Kit *Cont'd*

#### Install Controller Stand

1. Attach controller stand to controller mount bracket, using four 3/8 x 1-1/4 carriage bolts, 3/8 flat washers, lock washers, and nuts.

2. Attach controller to controller stand, using three 5/16 x 4-1/2 cap screws, 5/16 lock washers, and nuts.

**NOTE:** Be sure the handle is positioned with the "float" position forward (see Figure 35).

3. Adjust the controller stand, maintaining at least 4" spacing between the control lever and any restriction (hand throttle, door, fender, or hydraulic levers).

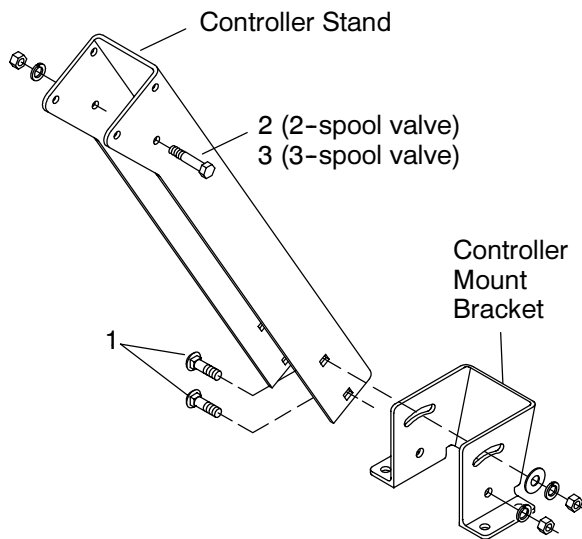
4. Position the controller stand so that the loader control movements will not be restricted.

5. Apply controller operational decals to a clean surface that is visible to the operator. See Figure 28 for completed installation.

**NOTE:** If using a 3-spool valve, attach the auxiliary controller to the outside of the controller stand, using 5/16 x 6 cap screws, 5/16 lock washers, and 5/16 nuts.



**Figure 28** Controller Stand Installed



**Figure 27** Controller Stand Assembly

1. 20973 3/8 x 1-1/4 Carriage bolt
2. 300110 5/16 x 4-1/2 Cap screw
3. 301001 5/16 x 6 Cap screw

TORQUE SPECIFICATIONS		
Bolt	Wrench	
	Size	Required Torque
5/16	1/2"	19 lbs.-ft.(26 N-m)
3/8	9/16"	35 lbs.-ft.(47 N-m)

### 3 #56038 Valve Kit & #46047 Hose Kit *Cont'd*

#### Attach Control Cables to Valve

1. Thread jam nut (g) over threaded end of cable.
2. Slide retainer (f) over cable.
3. Thread adjuster (e) completely over cable.
4. Thread jam nut (d) onto cable.
5. Thread cable adapter (a) onto end of cable. Adapter should be installed so that three threads on the cable remain visible at the jam nut.
6. Remove screws from retainer (c) while keeping retainer in place.
7. Attach adapter (a) to the valve spool using pin (b). Thread adjuster (e) onto cable to hold pin (b) in place.
8. Install socket head cap screws (h) through the assembly (c-f). Leave retainer (f) just loose enough to allow adjuster (e) to be turned.

**NOTE:** Valve cable connect kit contains three sets of socket head cap screws. Use 3/4" long screws for all sections.

9. Turn the adjuster to remove all slack from the cable housing and to keep the control lever centered.

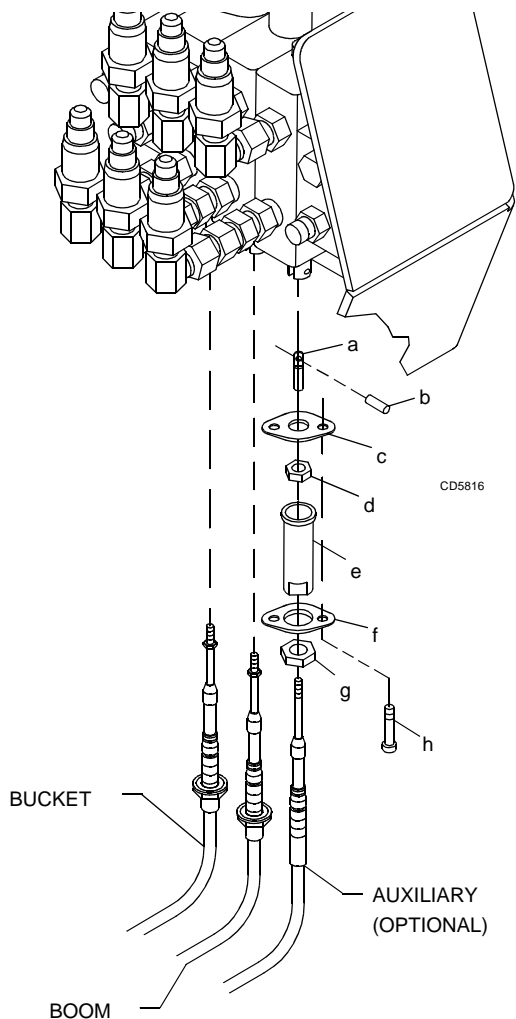


Figure 29 Control Cable Assembly

#### Adjust Control Cable

1. Check control lever operation before starting tractor. Lever should be centered and movement should be equal in all directions except "float" position. Float position is locked forward.
2. If the lever movement is not equal or the "float" position cannot be engaged, adjust the cables as follows (refer to Figure 29):
3. Loosen the adjuster jam nut (g) and the retainer cap screws (h) slightly so that adjuster (e) can be turned by hand.
4. Rotate the adjuster to move the control lever to center position.
5. If the lever cannot be adjusted for correct operation, remove the adjuster (e) and disconnect the cable adapter (a) from the valve.
6. Loosen the adapter jam nut (d) and turn the cable adapter until movement is correct (lengthen cable by turning 2 or 3 times).
7. Reconnect the cable adapter (a) and repeat cable adjustment procedure (Steps 1-4).
8. When adjustment is complete, tighten jam nut (g) and retainer cap screws (h) securely to hold cable housing in place, but do not overtighten.
9. Torque cap screws to 10 lbs.-ft.
10. Use a plastic tie strap to secure the cables to the loader mount.

### 3 #56038 Valve Kit & #46047 Hose Kit *Cont'd*

#### IMPORTANT

■ If hydraulic lines are not connected as shown in the mounting kit manual or the tractor manual, the control valve may be damaged. A blocked outlet (return) or improper hose connection will cause pressurized oil to enter the return circuit and damage the valve or the tractor hydraulic system.

■ Use care when identifying valve ports. Cable operated loader valve is mounted in the inverted position (stems down as shown in Figure 33.)

■ If tractor hydraulic system pressure is greater than 2650 psi, make sure the valve used is equipped with a relief valve.

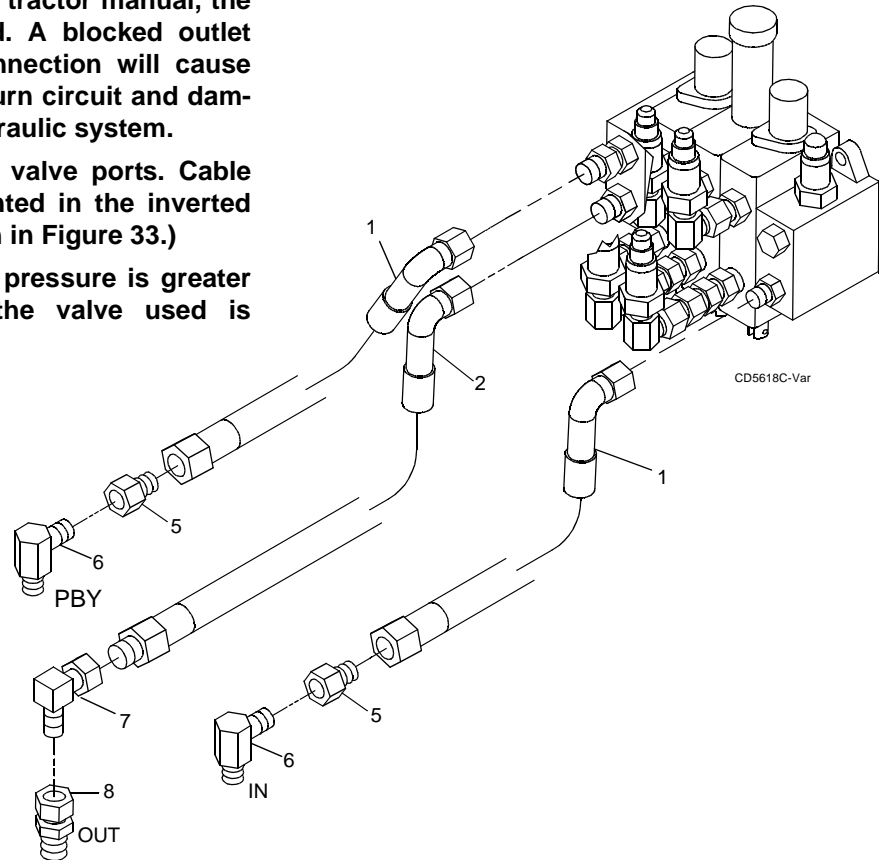


Figure 30 #46047 Hose Kit

#### Install OUT Line

1. Connect 90-degree end of 100" hose (3) to adapter in valve OUT port. Refer to Figure 30.

2. Route hose under fuel tank, then over right rear axle to tractor Return port (above the upper right of the PTO shield) and connect. Use straight adapter (1) and 90-degree elbow (2) as shown in Figure 31.

1. 315058 1/2 NPTM x 3/4 JICF Adapter
2. 313032 3/4 JICM x 3/4 JICF 90° Elbow
3. 46044 100" Hose

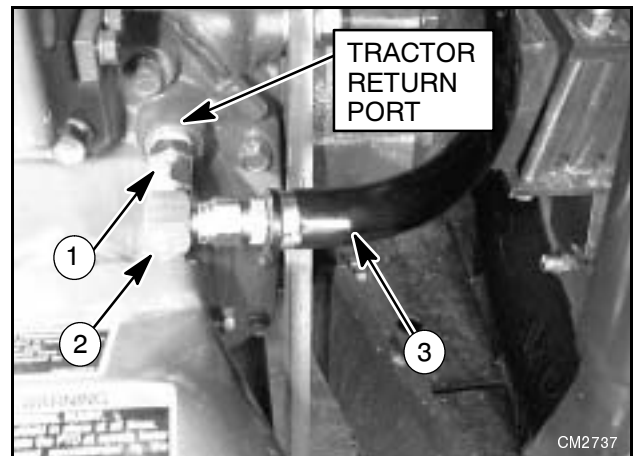


Figure 31 Tractor Return (OUT) Port

### 3 #56038 Valve Kit & #46047 Hose Kit *Cont'd*

#### Install IN & PBY Lines

1. If not done during installation of right rear loader mount, remove the tractor hydraulic line connector tube or adapter block (if equipped) as shown in Figure 2, Page 7.

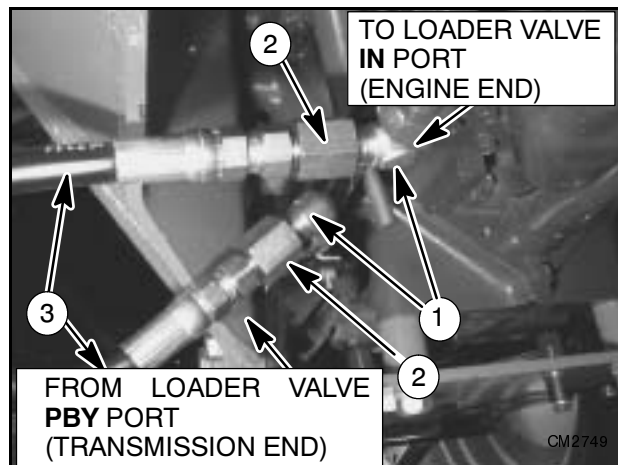
**NOTE:** If 90-degree elbow includes a nut and a sleeve, discard them.

2. Remove plastic cap from tractor hydraulic line.

3. Refer to Figure 30. Route hose (3) from valve IN port outside the loader mount to elbow (1) installed to the engine end of the hydraulic line as shown in Figure 32.

4. Refer to Figure 30. Route the hose (3) from valve PBY port outside the loader mount to elbow (1) installed in the transmission end of the hydraulic line as shown in Figure 32.

1. 40549 1/2 NPTM x M26 x 1.5M 90° Elbow
2. 315038 1/2 NPTF x 3/4 JICM Adapter
3. 46046 38" Hoses



**Figure 32** Tractor PBY & IN Connections



### 3 #56038 Valve Kit & #46047 Hose Kit *Cont'd*

#### Connect Loader Feedline Hoses

1. The Control Valve Kit contains hoses assembled with quick couplers. Attach the hoses to loader feedlines.

2. Connect loader feedline hoses to control valve hydraulic couplers following the color scheme shown in Figure 33.

3. Connect auxiliary feedlines to loader feedline hoses. Refer to Figure 33.

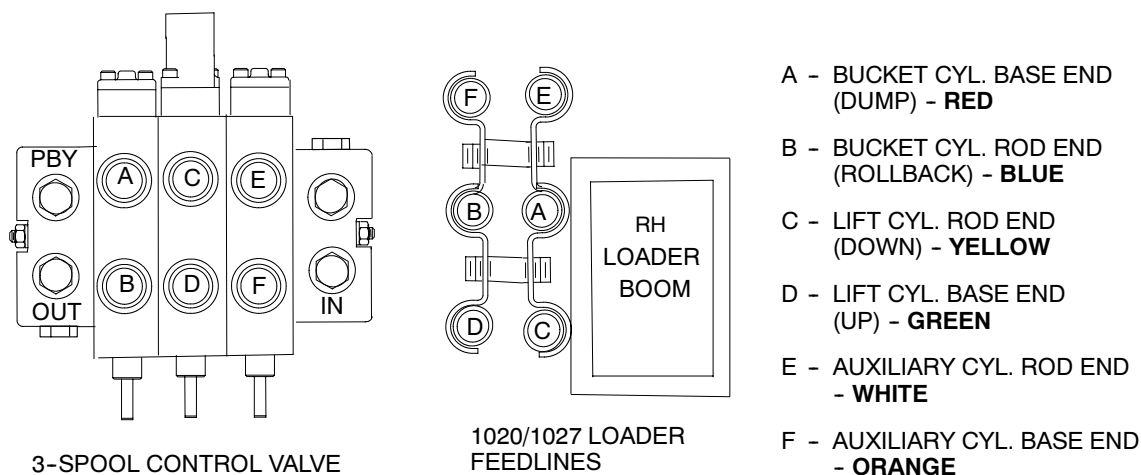


Figure 33 3-Spool Hydraulic Connection

#### Connect Hoses to Control Valve

1. Route control cables to valve. Protect cables from being crushed or pinched. Do not allow cable to be kinked or stretched. Keep all bends in cable to an 8" radius or greater.

2. Tighten fittings and align hoses as shown in Figure 34. Leave an opening to allow for installation and removal of the loader mounting pin.

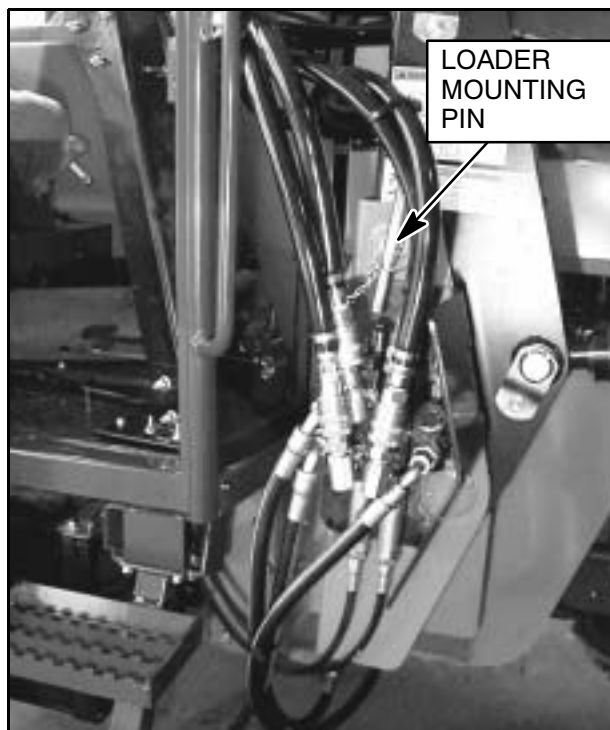


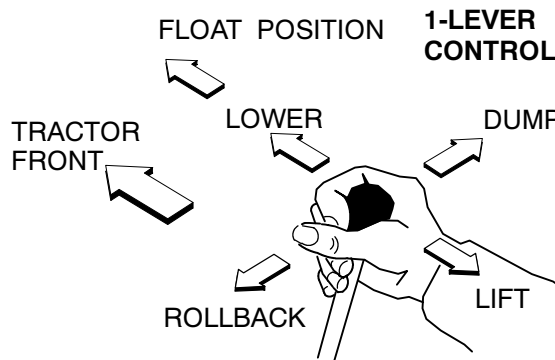
Figure 34 Hose Installation to Control Valve

**Verification of Control Movements**

1. Refer to the Woods Loader Operator's Manual to complete the loader installation. At least 6" spacing should be maintained between valve, bracket, or hoses and any tractor control (brake pedals, accelerator, hand throttle, or hydraulic levers).
2. Comply with all Safety Rules and start the tractor.
3. Check that all hydraulic control lever positions operate the loader movements correctly as shown in Figure 35.

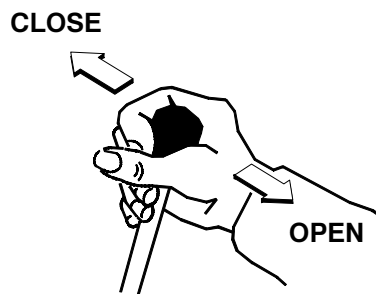
**NOTE:** When the optional auxiliary hydraulic control is used for operating an attachment such as a grapple, pushing the control lever forward should close the attachment and pulling the lever rearward should open the attachment. See Figure 36.

4. If loader movements do not respond correctly, shut off tractor, relieve pressure, and reconnect properly. Loader control movements must be correct before proceeding.
5. Once all hoses are connected correctly, start the tractor and operate the loader to check for leaks. Purge any remaining air from the hydraulic system.
6. When hose routings and correct loader operations are verified, identify each circuit by placing a matching colored band around the male and female quick-disconnect coupler set. The colored bands will make re-installation easier when the loader is removed from the tractor.
7. Attach the plastic tie straps (included in kit) every 20 inches around the hoses to keep them tightly bundled and away from contact with the ground or other moving parts on the tractor or loader.
8. Be sure the adequate slack is left in the hoses so they can move as the loader moves through its full range of motion.
9. Before operating the loader, make sure that the Pre-Delivery, Delivery, and Pre-Operation Checklists from the Operator section in the Loader Operator's Manual have been completed.



**Figure 35** Single Lever Control Operation

- Handle Forward - Boom down
- Handle forward to limit - Float position
- Handle back - Boom up
- Handle to right - Dump bucket or attachment
- Handle to left - Rollback bucket or attachment



- Handle forward - Close grapple
- Handle rearward - Open grapple

**Figure 36** Auxiliary Control Operation

# NOTES

### 111868 LOADER MOUNTING KIT

#### Loaders

**1020**

**1027**

mounting to

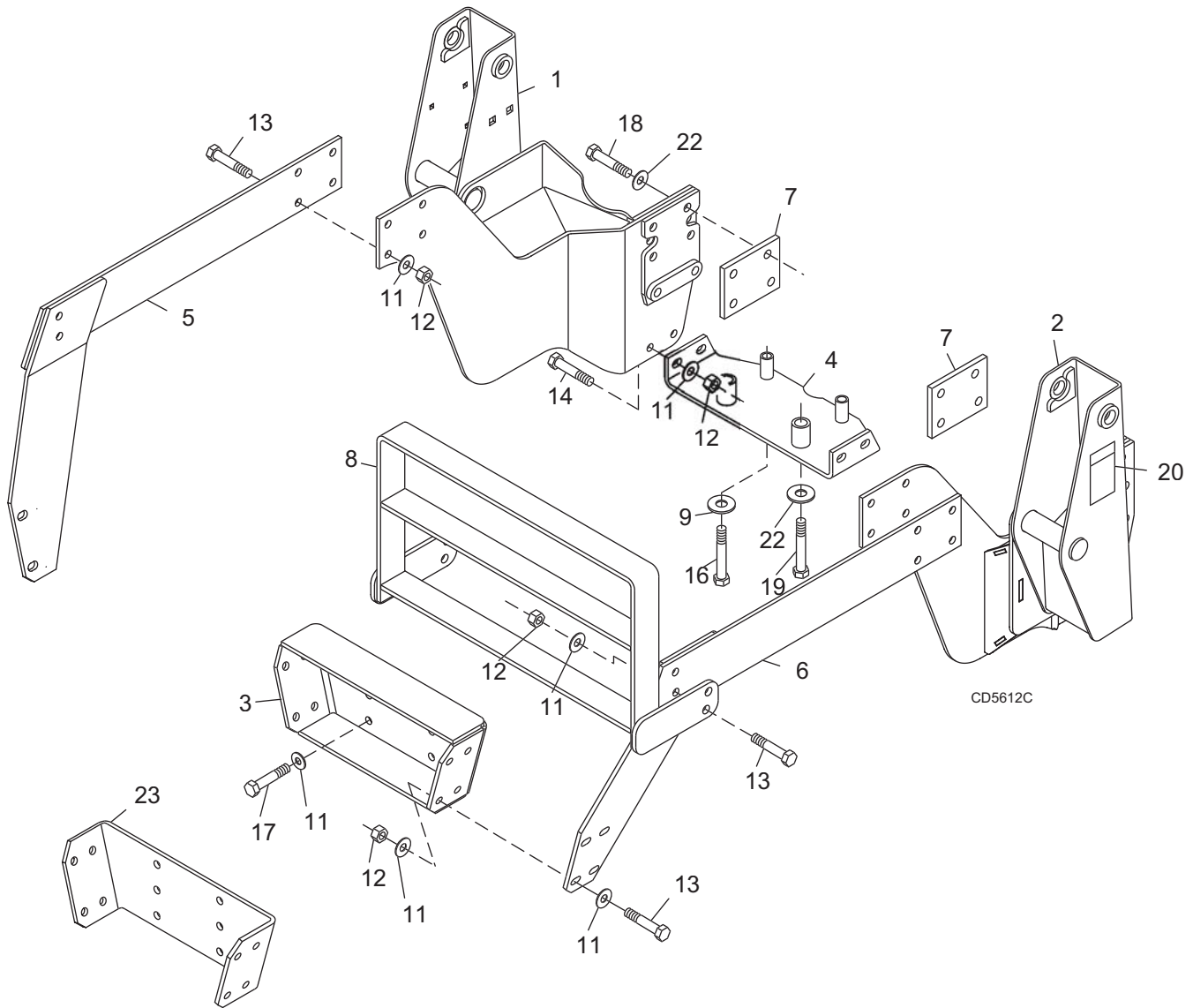
#### Kubota Tractor Models

**M8200**

**M9000**

#111868 LOADER MOUNT KIT .....	32
#40542 HOSE KIT (For use with tractor remotes) .....	33
#56037 CONTROL VALVE KIT (For use with loader-mounted control lever) .....	34-35
#56038/#56042 CABLE CONTROL VALVE KIT (For tractors with cab) .....	36-37
#46047 HOSE KIT (For use with cable-operated controls) .....	38
#40547 HOSE KIT (For use with loader-mounted control lever) .....	39

# 111868 LOADER MOUNTING KIT



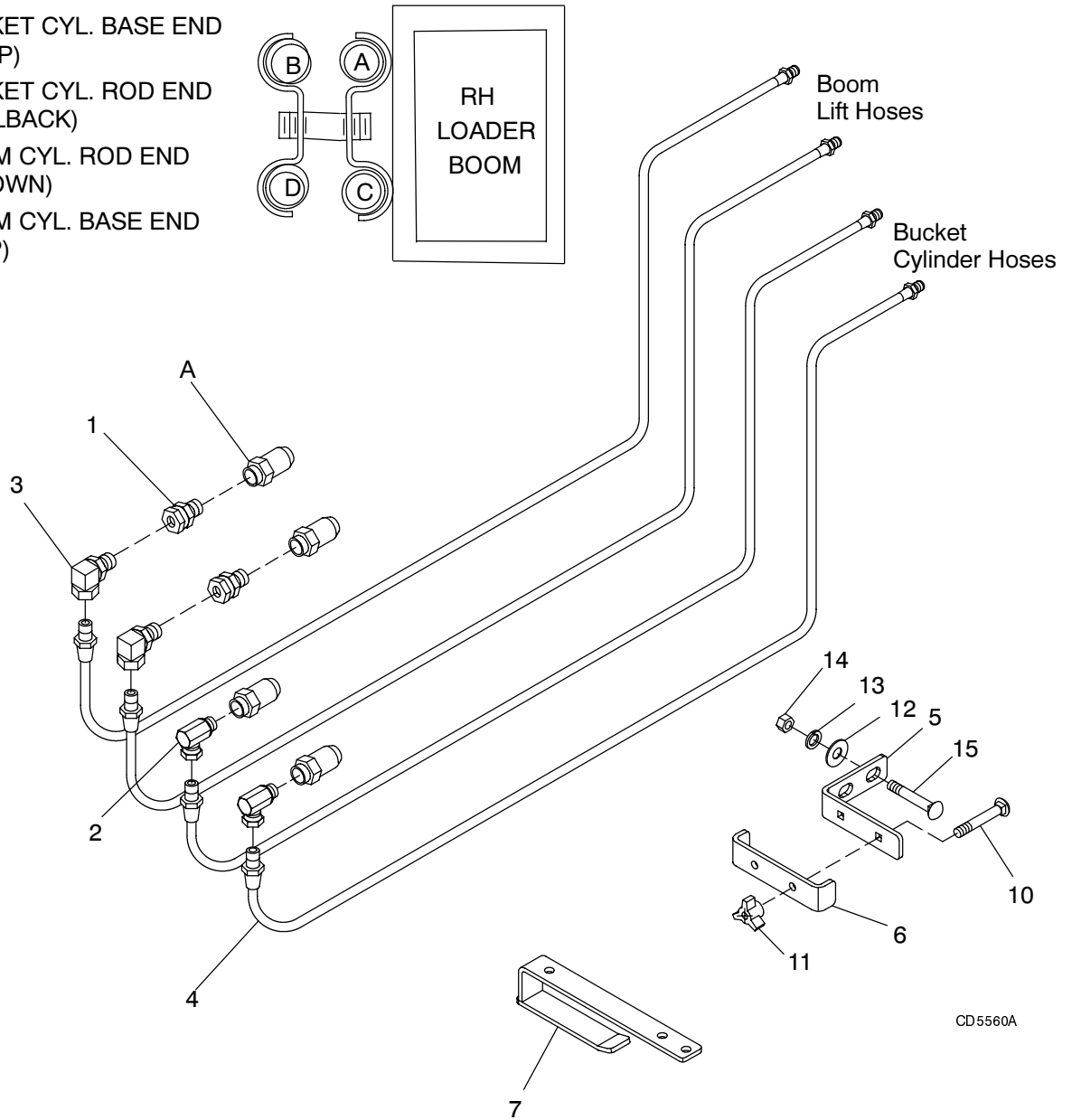
REF	PART	QTY	DESCRIPTION	REF	PART	QTY	DESCRIPTION
1	44490	1	Right rear mount	14	12274	4	5/8 NC x 2-1/4 Hex head cap screw GR5
2	44491	1	Left rear mount	16	67376	2	M12 x 1.25 x 80mm Hex head cap screw GR10.9
3	1002896	1	Front mount bracket	17	307425	6	M16 x 1.5 x 35mm Hex head cap screw GR8.8
4	46000	1	Crossmember	18	46019	12	M18 x 1.5 x 70mm Hex head cap screw GR8.8
5	59628	1	Right side rail	19	307502	2	M18 x 1.5 x 85mm Hex head cap screw GR8.8
6	59631	1	Left side rail	20	56059	1	Decal, loader mounting instructions
7	46015	2	Spacer plate (use only on non-cab models only)	22	57798	14	3/4 SAE Hardened flat washer
8	1000545	1	Grill guard	23	—	—	Front anchor (no longer used; order 1002896, item 3)
9	57816	2	1/2 SAE Hardened flat washer				
11	57817	38	5/8 Flat washer				
12	230	24	5/8 NC Hex nut				
13	4548	20	5/8 NC x 1-3/4 Hex head cap screw GR5				

**32 PARTS**

(Rev. 3/15/02)  
PN-46018 (Rev. 11/10/00)

## #40542 HOSE KIT (FOR USE WITH TRACTOR REMOTE CONTROL LEVER)

- A - BUCKET CYL. BASE END (DUMP)
- B - BUCKET CYL. ROD END (ROLLBACK)
- C - BOOM CYL. ROD END (DOWN)
- D - BOOM CYL. BASE END (UP)



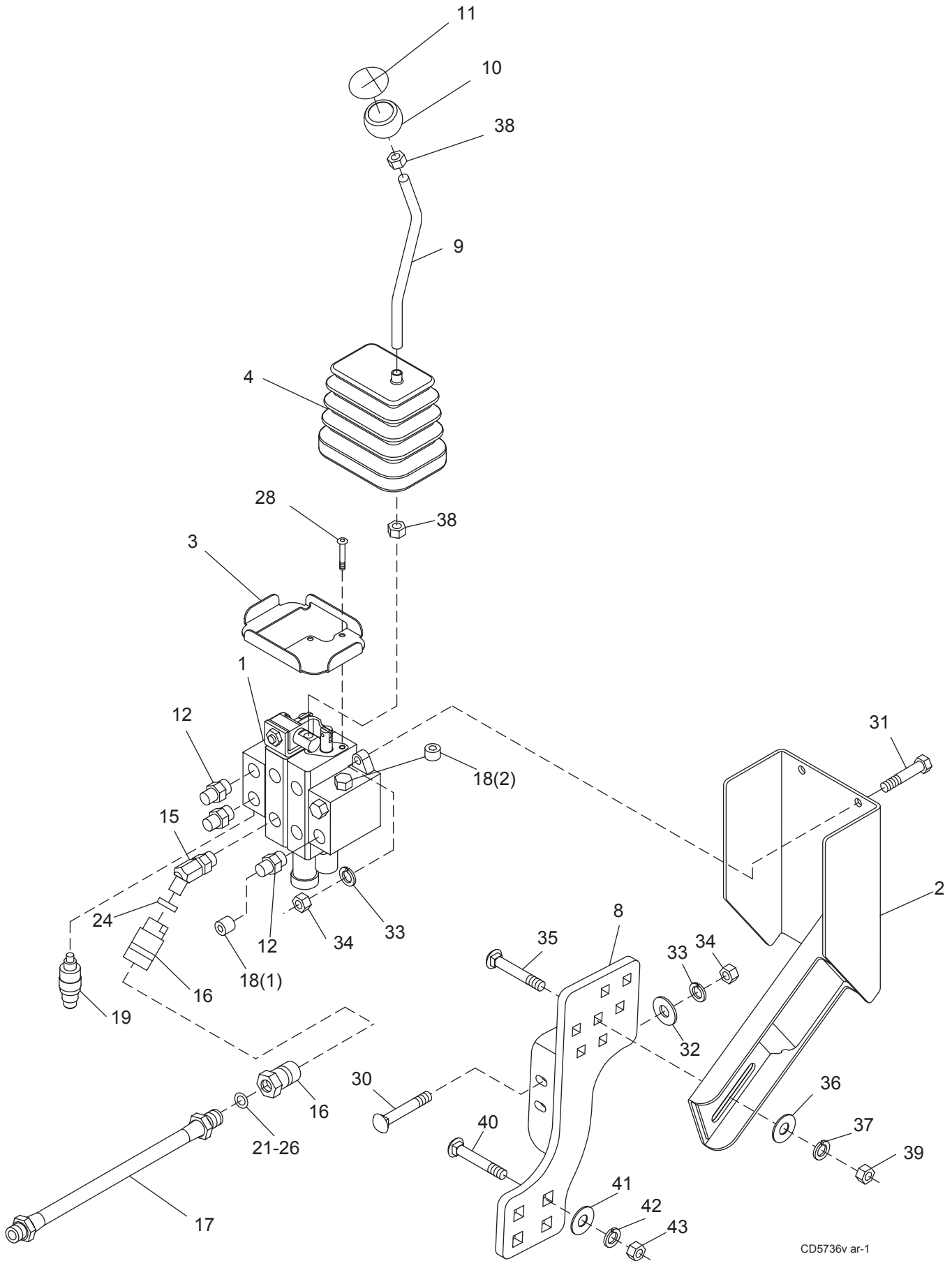
CD5560A

REF	PART	QTY	DESCRIPTION
A	66511	4	Quick coupler ISO 1/2 NPT (not included)
1	315058	2	Adapter, 1/2 NPT x 3/4 JICF
2	313053	2	Elbow, 1/2 NPT x 3/4 JICF
3	313032	2	Elbow, 3/4 JICM x 3/4 JICF
4	53670	4	3/8 x 150" Hose w/clamped protective shield
5	40539	1	Hose clamp bracket
6	40548	1	Hose clamp channel
7	40543	1	Hose support
10	35735	2	3/8 NC x 2-1/2 Carriage bolt

REF	PART	QTY	DESCRIPTION
11	66840	2	3/8 NC Knob
12	3632	2	5/8 Flat washer
13	1286	2	5/8 Lock washer
14	230	2	5/8 NC Hex nut
15	5607	2	5/8 NC x 1-1/2 Carriage bolt
NS	395061	2	Spiral band, red
NS	395062	2	Spiral band, blue
NS	395063	2	Spiral band, orange
NS	54124	2	Spiral band, white
NS	88	6	Plastic tie

NS = Not Shown

# 56037 CONTROL VALVE



CD5736v ar-1

**34 PARTS**

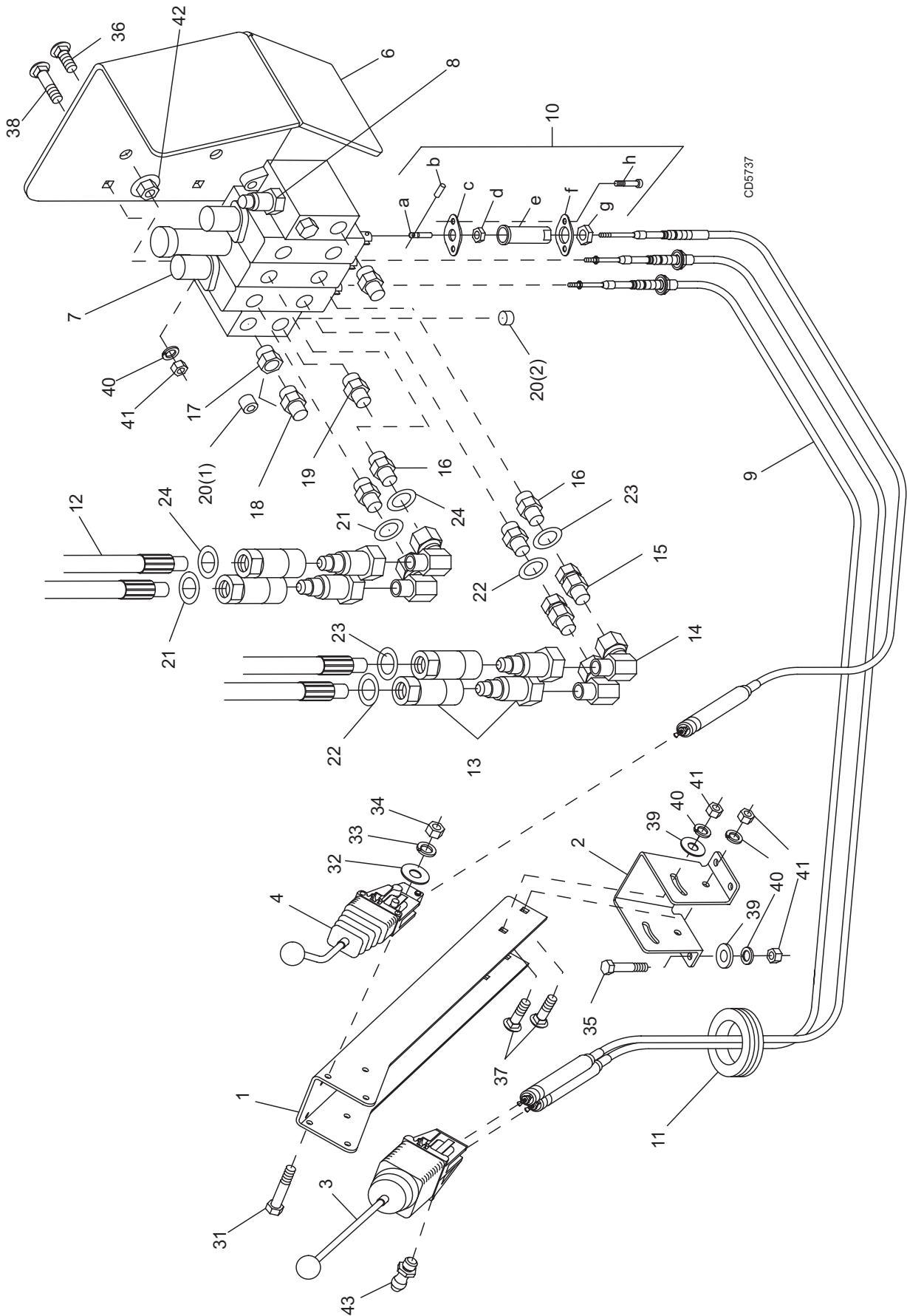
(Rev. 3/15/02)  
PN-46018 (Rev. 11/10/00)

## 56037 CONTROL VALVE PARTS LIST

REF	PART	QTY	DESCRIPTION	REF	PART	QTY	DESCRIPTION
1	56251	1	2-Spool valve with controller	22	395062	2	Spiral band, blue
2	45056	1	2-Spool valve mount	23	56061	2	Spiral band, green
3	46305	1	Boot bracket	24	56062	2	Spiral band, yellow
4	40527	1	Rubber control boot (2-spool)	28	56268	2	1/4 NC x 5/8 Button head cap screw
8	46340	1	Valve mounting plate	30	20973	1	3/8 x 1-1/4 Carriage bolt
9	56254	1	Bent handle, 0.5 OD x 11.31	31	12169	3	3/8 NC x 1-1/4 Hex head cap screw
10	45003	1	Knob, 1.88 diameter x 1/2 NC	32	565	1	3/8 Flat washer
11	45002	1	Valve control decal	33	838	4	3/8 Lock washer ZP
12	316016	3	Adapter, 3/4 JICM x 7/8 ORBM	34	835	4	3/8 NC Plated hex nut
15	45001	4	45° Elbow, 3/8 NPTM x 3/4 ORBM	35	12735	3	1/2 NC x 1-3/4 Carriage bolt HT
16	316007	4	Quick-attach coupler	36	3598	3	1/2 SAE Flat washer
17	56095	4	3/8 x 54" Hose, 3/8 NPTM x 3/4 JICM	37	855	3	1/2 Lock washer ZP
18	1082312	2	Plug, 7/8 x 14 (For open-center systems only; one replaces Item 12 in PBY port; one replaces Item 20 shut-off plug)	38	13859	2	1/2 NC Jam nut
19	56252	1	Relief valve assembly	39	1093	3	1/2 NC Plated hex nut
20	X102202	1	MRV Shut-off plug	40	5607	2	5/8 NC x 1-1/2 Carriage bolt
21	395061	2	Spiral band, red	41	3632	2	5/8 SAE Standard flat washer
				42	1286	2	5/8 Lock washer ZP
				43	230	2	5/8 Plated hex nut



**CABLE CONTROL VALVE PARTS**  
**#56038 - 2 Spool Valve**  
**#56042 - 3 Spool Valve**



## CABLE CONTROL VALVE PARTS LIST

### #56038 - 2 SPOOL VALVE

### #56042 - 3 SPOOL VALVE

REF	PART	QTY	REF	REF	PART	QTY	REF
1	56214	1		21	395061	2	
			Controller stand				Spiral band, red
2	56215	1		22	395062	2	
			Controller mount bracket				Spiral band, blue
3	488010	1		23	56061	2	
			Dual axis controller				Spiral band, green
4	488011	1		24	56062	2	
			Single axis controller (56042)				Spiral band, yellow
6	46045	1		25	395063	2	
			Valve guard				Spiral band, orange (not shown)
7	56250	1		26	54124	2	
			Husco 2-spool valve (56038)				Spiral band, white (not shown)
	<b>or</b>			31	300110	3	
7	56270	1					5/16 NC x 4-1/2 Cap screw (56038)
			Husco 3-spool valve (56042)		<b>or</b>		
8	56252	1		31	301101	3	
			Relief valve, 2650 psi				5/16 NC x 6 Cap screw (56042)
9	56210	AR		32	4378	AR	
			66" Control cable				5/16 Flat washer (3 for 2-spool, 6 for 3-spool)
10	56209	AR		33	2472	AR	
			Husco valve kit connectors (2 for 2-spool, 3 for 3-spool; includes items A-H)				5/16 Lock washer (3 for 2-spool, 6 for 3-spool)
11	2	1		34	4529	AR	
			Grommet				5/16 NC Hex nut (3 for 2-spool, 6 for 3-spool)
12	46048	AR		35	839	4	
			Hose 3/8 x 48"				3/8 NC x1 Cap screw
13	316007	AR		36	24597	2	
			Quick coupler set				3/8 NC x 3/4 Carriage bolt (56042)
14	8472	AR		37	20973	4	
			Elbow, 3/8 NPTM x 3/8 NPSM (4 for 2-spool, 6 for 3-spool)				3/8 NC x 1-1/4 Carriage bolt
15	315039	AR		38	301104	3	
			Adapter, 3/8 NPTM x 3/8 NPSM (4 for 2-spool, 6 for 3-spool)				3/8 NC x 1-1/2 Carriage bolt
16	315043	AR		39	21757	6	
			Adapter, 3/4 ORM x 3/8 NPTM (4 for 2-spool, 6 for 3-spool)				3/8 SAE Flat washer
17	1009	1		40	838	11	
			Adapter, 1/2 NTPF x 7/8 ORBM				3/8 Lock washer
18	315057	1		41	835	11	
			Adapter, 1/2 NPTM x 3/4 JICM				3/8 NC Hex nut
19	316016	2		42	14350	2	
			Adapter, 3/4 JICM x 7/8 ORBM				3/8 NC Flanged lock nut (56042)
20	1082312	2		43	45005	3	
			Plug, 7/8 x 14 (Used for open-center systems only; one replaces items 17 & 18 in PBY port; one replaces shut-off plug)				Control valve ball stud (repair part for dual axis controller, item 3)
				NS	260274	1	
							Decal, Instructional control
				NS	56889	1	
							Decal, Auxiliary hydraulic control
				NS	88	2	
							Plastic tie straps

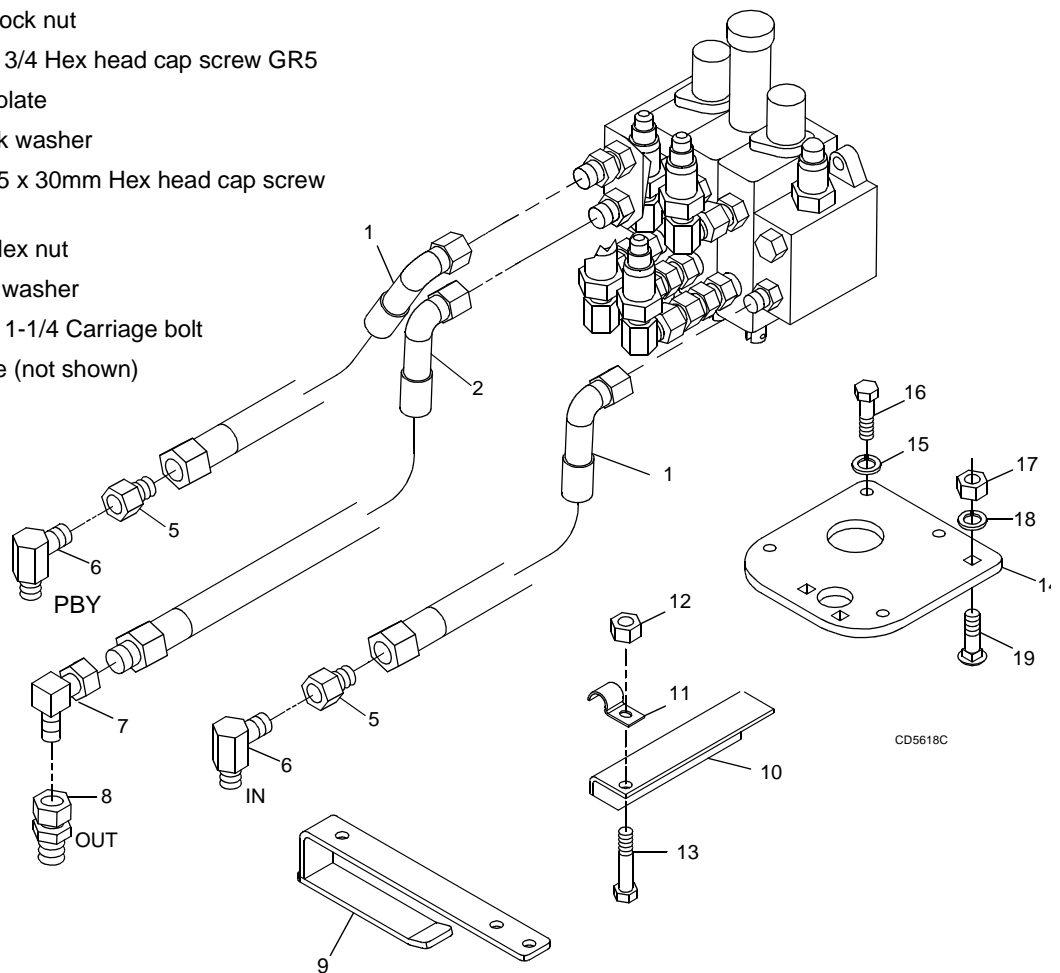
AR = As Required

NS = Not Shown

## #46047 HOSE KIT (TO BE USED WITH CABLE-OPERATED CONTROLS)

REF	PART	QTY	DESCRIPTION
1	46046	2	1/2 X 38" Hose without sleeve, 3/4 JICF x 3/4 JICF
2	46044	1	1/2 x 100" hose without sleeve, 3/4 JICF x 3/4 JICF
5	315038	2	Adapter, 1/2 NPTF x 3/4 JICM
6	40549	2	90° Elbow, 1/2 NPTM x M26 x 1.5M
7	313032	1	90° Swivel elbow, 3/4 JICM x 3/4 JICF
8	315058	1	Adapter, 1/2 NPTM x 3/4 JICF
9	40543	1	Hose support
10	40546	1	Line support bracket
11	480261	1	Clamp
12	6128	1	1/4 NC Lock nut
13	300057	1	1/4 NC x 3/4 Hex head cap screw GR5
14	46049	1	Adapter plate
15	2472	4	5/16 Lock washer
16	307129	4	M8 x 1.25 x 30mm Hex head cap screw GR8.8
17	835	3	3/8 NC Hex nut
18	838	3	3/8 Lock washer
19	20973	3	3/8 NC x 1-1/4 Carriage bolt
NS	88	3	Plastic tie (not shown)

**NOTE:** Kit contains fittings that are not needed for the M8200 or M9000 tractor.

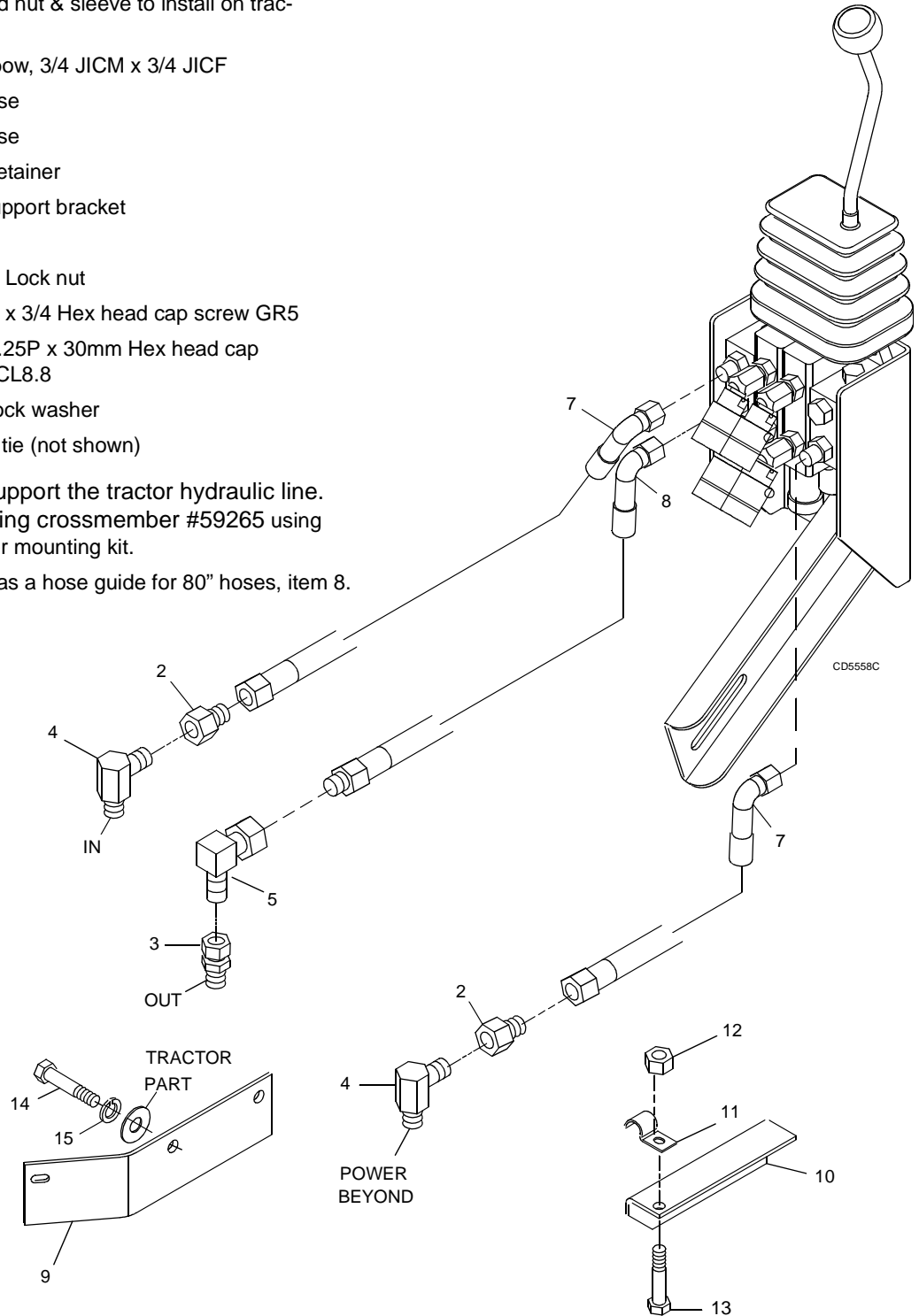


## #40547 HOSE KIT (FOR USE WITH LOADER-MOUNTED CONTROL LEVER)

REF	PART	QTY	DESCRIPTION
2	315038	2	Adapter, 1/2 NPTF x 3/4 JICM
3	315058	1	Adapter, 1/2 NPTM x 3/4 JICF
4	40549	2	90° Elbow, 1/2 NPTM x M26 x 1.5M (discard nut & sleeve to install on tractor)
5	313032	1	90° Elbow, 3/4 JICM x 3/4 JICF
7	360130	2	54" Hose
8	57911	1	80" Hose
9	58859	1	Hose retainer
10	40546	1	Line support bracket
11	480261	1	Clamp
12	6128	1	1/4 NC Lock nut
13	300057	1	1/4 NC x 3/4 Hex head cap screw GR5
14	307129	3	M8 x 1.25P x 30mm Hex head cap screw CL8.8
15	2472	3	5/16 Lock washer
NS	88	3	Plastic tie (not shown)

Items 10-13 are used to support the tractor hydraulic line.  
Item 10 attaches to mounting crossmember #59265 using hardware supplied with loader mounting kit.

Items 9,14, and 15 are used as a hose guide for 80" hoses, item 8.



# BOLT TORQUE CHART

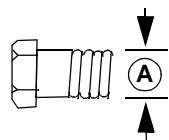
Always tighten hardware to these values unless a different torque value or tightening procedure is listed for a specific application.

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

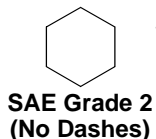
Always use the proper tool for tightening hardware: SAE for SAE hardware and Metric for metric hardware.

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

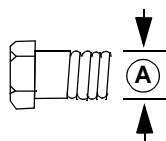


**SAE Grade 5  
(3 Radial Dashes)**

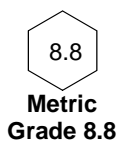


**SAE Grade 8  
(6 Radial Dashes)**

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"	1-5/16"	306	416	474	642	669	907
1"	1-1/2"	467	634	722	979	1020	1383



## METRIC SERIES TORQUE CHART



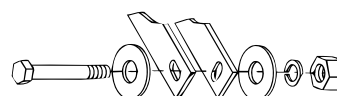
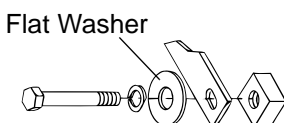
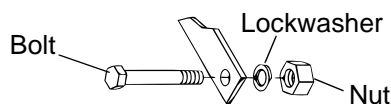
Metric Bolt Head Identification



**10.9  
Metric  
Grade 10.9**

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

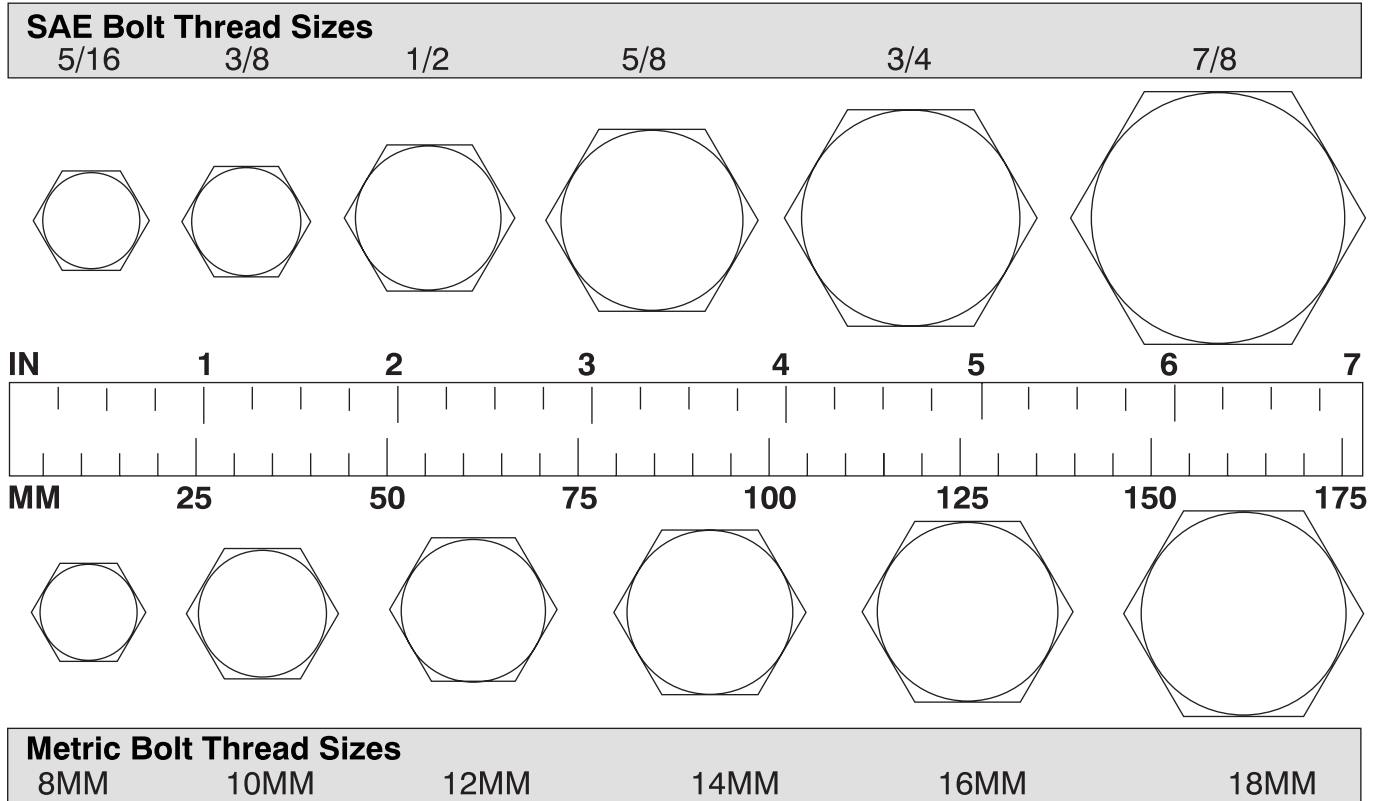
### Typical Washer Installations



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 with the exception of V-belts, which will be free of defect in material and workmanship for a period of 12 months.

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

This Warranty is extended solely to the original purchaser of the product. Should the original purchaser sell or otherwise transfer this product to a third party, this Warranty does not transfer to the third party purchaser in any way. There are no third party beneficiaries of this Warranty.

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

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

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

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

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

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

**Woods Equipment  
Company**

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

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

**WOODS**<sup>®</sup>

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

# 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.

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.

**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:

## Woods Equipment Company

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

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

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



**MANUAL  
PART NUMBER**

**46018**

**Woods Equipment  
Company**

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

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

**WOODS®**

© 1999 Woods Equipment Company. All rights reserved.