



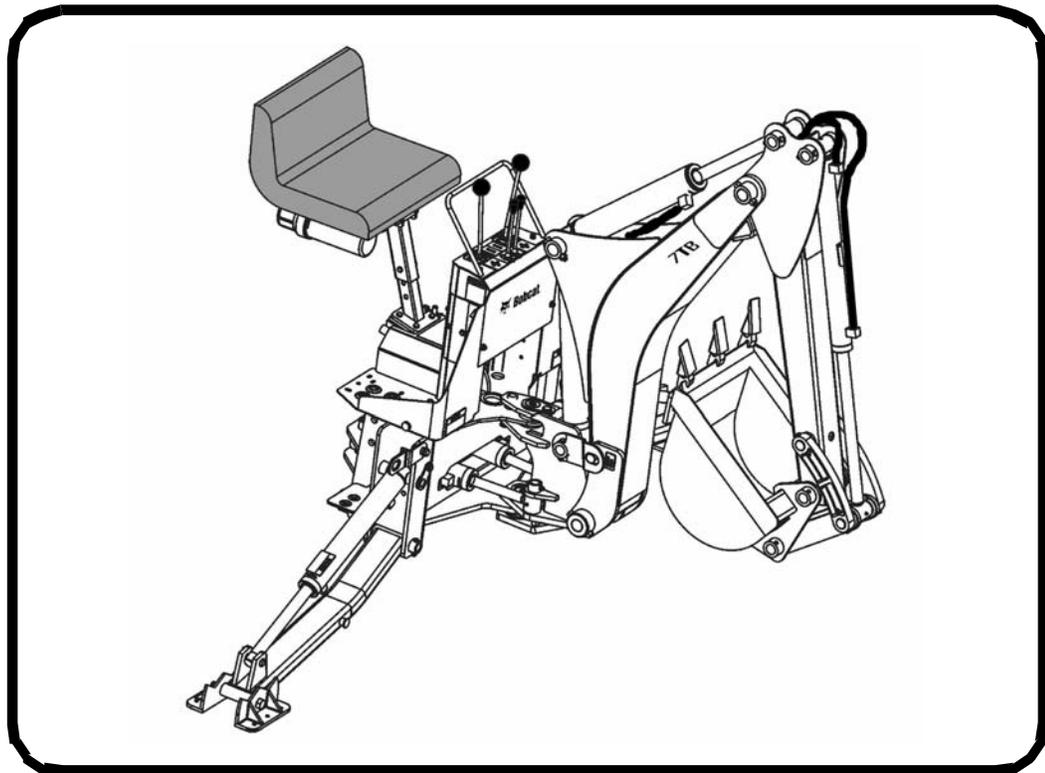
# Bobcat®

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## Service Manual Tractor Backhoe

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**(6TB) S/N A91400101 & Above**  
**(7TB) S/N AE3H00101 & Above**  
**(8TB) S/N AE3L00101 & Above**



Product: 2010 Bobcat Tractor Backhoe 6TB,7TB,8TB Service Repair Workshop Manual(6986711)(5-10)

Full Download: [https://www.arepairmanual.com/downloads/2010-bobcat-tractor-](https://www.arepairmanual.com/downloads/2010-bobcat-tractor-backhoe-6tb7tb8tb-service-repair-workshop-manual69867115-10/)

[backhoe-6tb7tb8tb-service-repair-workshop-manual69867115-10/](https://www.arepairmanual.com/downloads/2010-bobcat-tractor-backhoe-6tb7tb8tb-service-repair-workshop-manual69867115-10/)

Sample of manual. Download All 142 pages at:

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# MAINTENANCE SAFETY



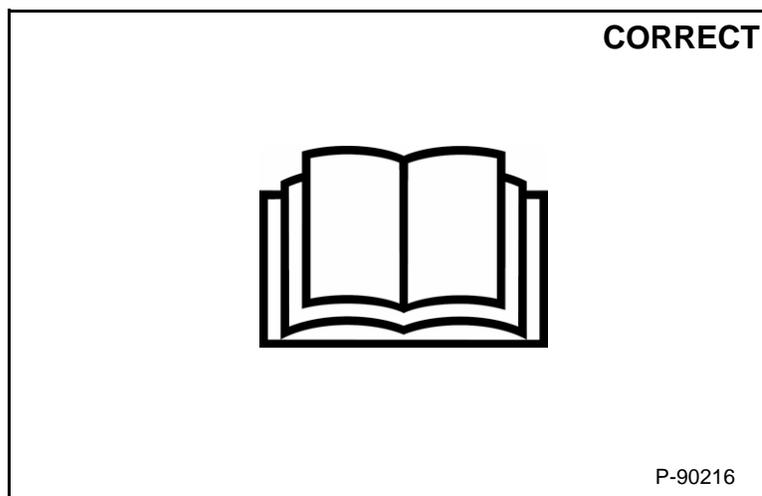
## WARNING

Instructions are necessary before operating or servicing machine. Read and understand the Operation & Maintenance Manual, Operator's Handbook and signs (decals) on machine. Follow warnings and instructions in the manuals when making repairs, adjustments or servicing. Check for correct function after adjustments, repairs or service. Untrained operators and failure to follow instructions can cause injury or death.

W-2003-0807



**Safety Alert Symbol:** This symbol with a warning statement, means: "Warning, be alert! Your safety is involved!" Carefully read the message that follows.



-  Never service attachments / implements without instructions. See Operation & Maintenance Manual and Attachment / Implement Service Manual.
-  Cleaning and maintenance are required daily.
-  Never service or adjust attachment / implement with the engine running unless instructed to do so in manual.
-  Always lower the attachment / implement to the ground before lubricating or servicing.
-  Avoid contact with leaking hydraulic fluid or diesel fuel under pressure. It can penetrate skin or eyes.
-  Stop, cool and clean engine of flammable materials before checking fluids.
-  Keep body, loose objects and clothing away from moving parts, electrical contacts, hot parts and exhaust.
-  Safety glasses are needed for eye protection from electrical arcs, battery acid, compressed springs, fluids under pressure and flying debris or when tools are used. Use eye protection approved for type of welding.



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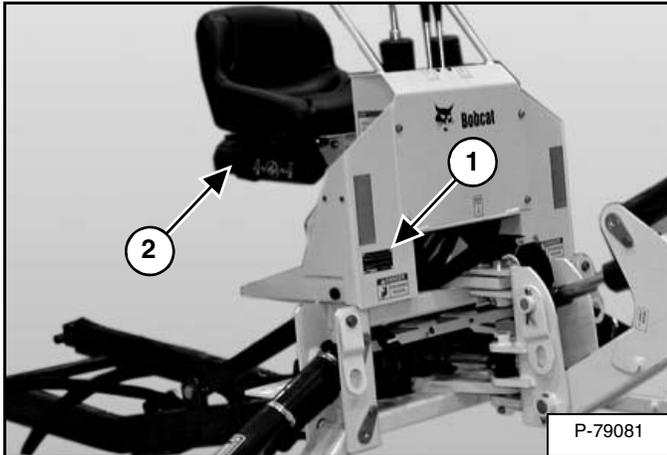


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## SERIAL NUMBER LOCATION

### Attachment Serial Number

Figure 1



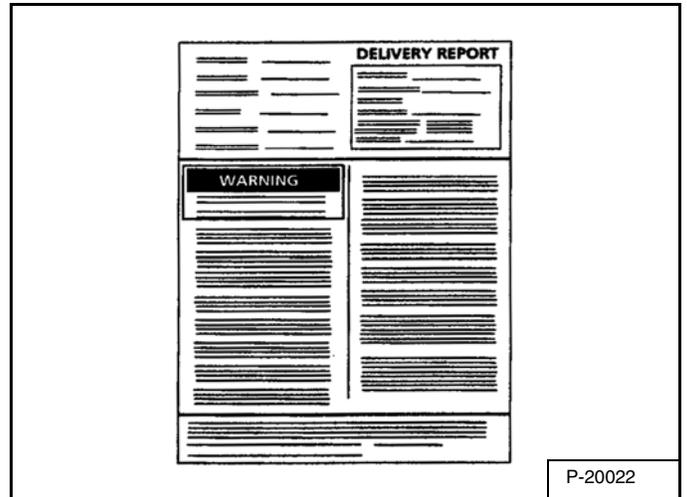
Always use the serial number (Item 1) [Figure 1] of the backhoe when requesting service information or when ordering parts. Early or later models (identification made by serial number) may use different parts, or it may be necessary to use a different procedure in doing a specific service operation.

### Manual Storage

The manual storage container (Item 2) [Figure 1] is located under the right side of the backhoe operator's seat.

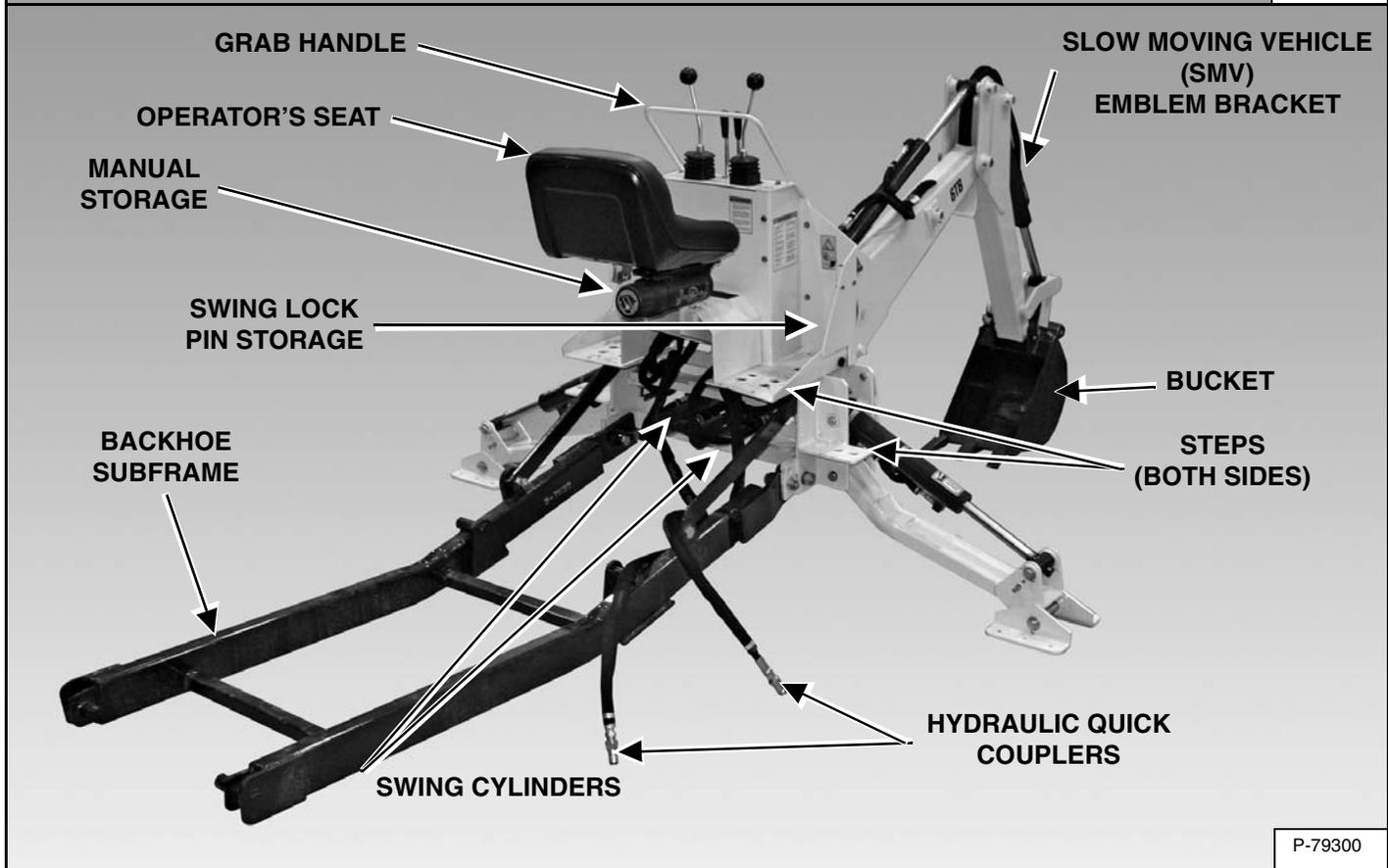
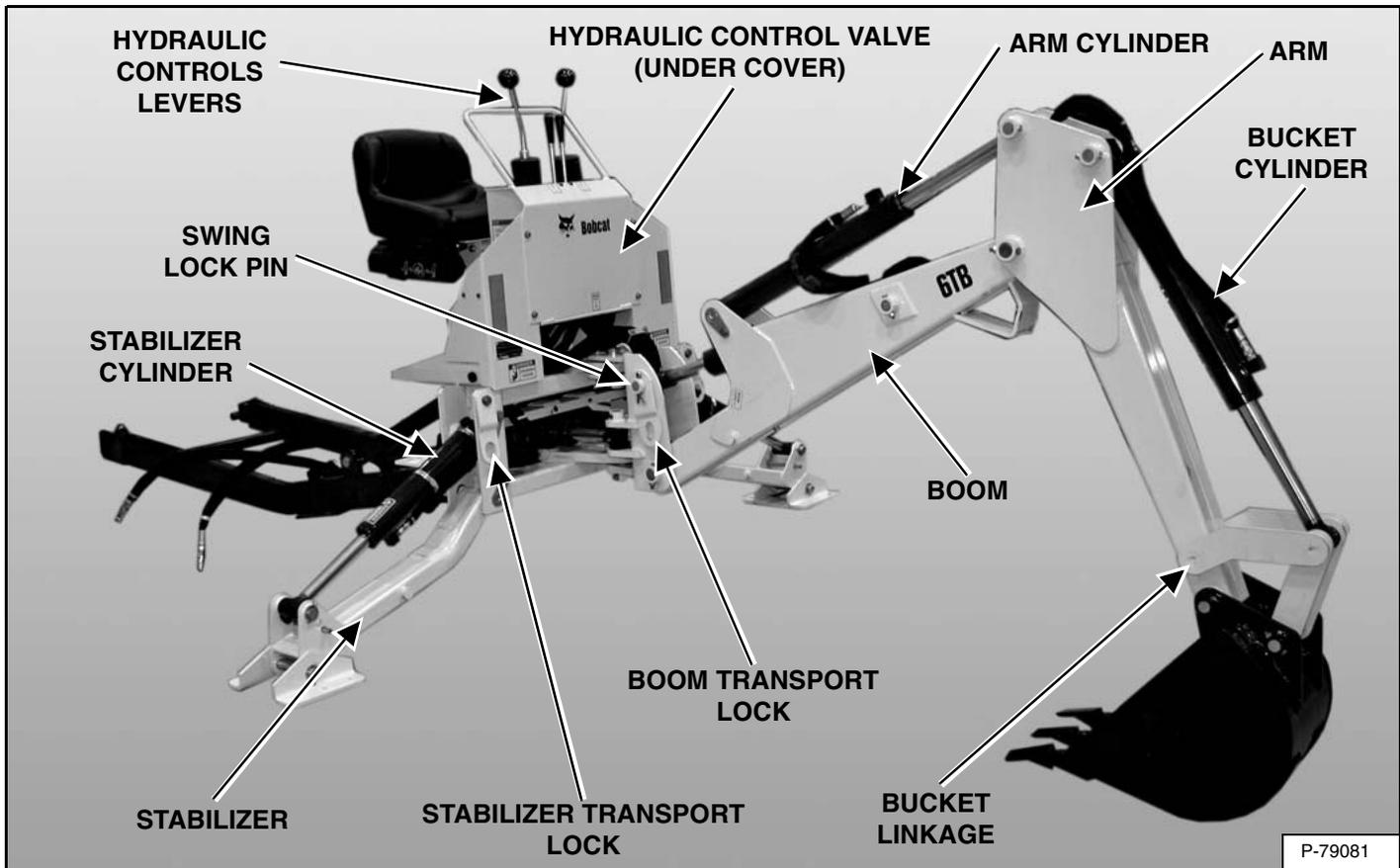
## DELIVERY REPORT

Figure 2



The delivery report [Figure 2] must be completed by the dealer and signed by the owner or operator when the Bobcat tractor backhoe is delivered. An explanation of the form must be given to the owner.

**ATTACHMENT IDENTIFICATION**



## SAFETY & MAINTENANCE

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## TROUBLESHOOTING

### Chart

 <b>WARNING</b>	<p>Instructions are necessary before operating or servicing machine. Read and understand the Operation &amp; Maintenance Manual, Operator's Handbook and signs (decals) on machine. Follow warnings and instructions in the manuals when making repairs, adjustments or servicing. Check for correct function after adjustments, repairs or service. Untrained operators and failure to follow instructions can cause injury or death.</p> <p style="text-align: right;">W-2003-0903</p>
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If the tractor backhoe is not working correctly, check the hydraulic system of the compact tractor thoroughly before making any repairs on the tractor backhoe. Tractor backhoe problems can be affected by a hydraulic system that is not operating to specifications. Connect a flow meter to the machine to check the hydraulic pump output, relief valve setting and tube lines to check flow and pressure. (See the compact tractor's Service Manual for the correct procedure to connect the flow meter.)

Use the following troubleshooting chart to locate and correct problems which most often occur with the tractor backhoe.

TROUBLESHOOTING THE BOBCAT TRACTOR BACKHOE		
PROBLEM	CAUSE	CORRECTION
Loss of hydraulic action.	The auxiliary hydraulic control on the compact tractor is not engaged.	Activate the auxiliary hydraulic control on the compact tractor.
	The quick coupler hoses on the backhoe are not installed correctly on the compact tractor.	Reverse the quick couplers on the compact tractor or reverse the flow by pushing the auxiliary flow lever the opposite direction.
	Hydraulic fluid is low.	*Add fluid of the correct type.
	Air in the hydraulic system.	Operate all the cylinders except the swing cylinder as far as possible both ways and hold the controls for several seconds after the cylinders reached the end strokes.
No cushion in swing cylinder.	Air in the cylinder caused by a leak or repair of the swing cylinder.	Repair as needed. Remove air from the swing cylinder.
*See the Compact Tractor's Operation & Maintenance Manual, Specification Section for the correct type of fluid to use.		



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## LUBRICATING THE ATTACHMENT

### Lubrication Locations (6TB)

# WARNING

### AVOID INJURY OR DEATH

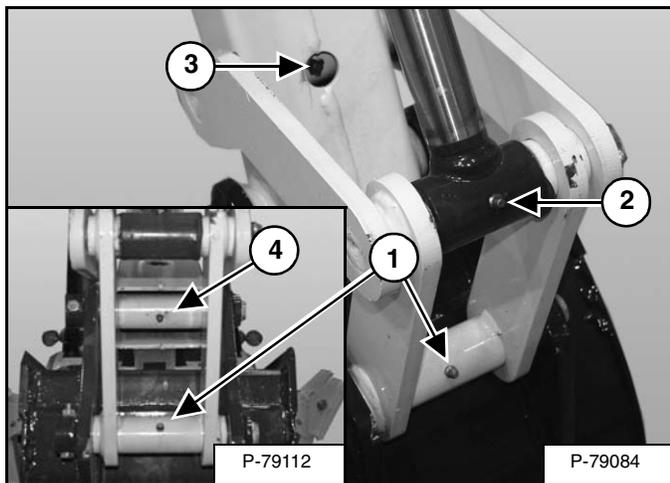
Always lower the backhoe boom, arm, bucket and stabilizers to the ground (or install the swing lock pin and engage the boom and stabilizer transport locks) and stop the compact tractor engine before making any adjustments on the backhoe or compact tractor.

W-2685-0208

Use a good quality lithium based multi-purpose grease. Lubricate the fittings until extra grease shows.

Lubricate the backhoe every **8 HOURS** of operation:

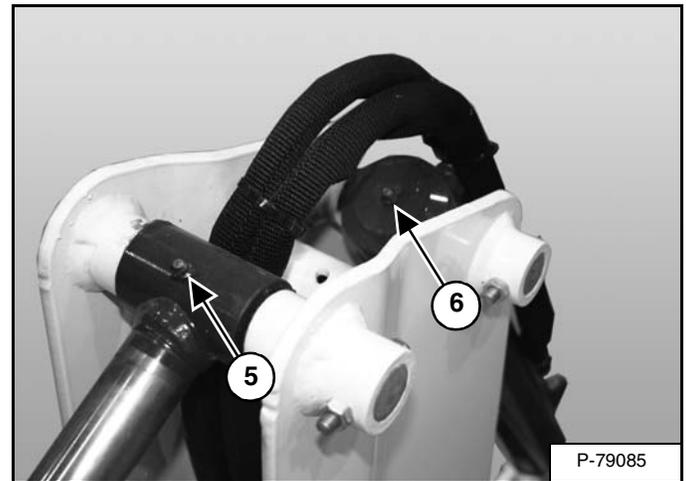
Figure 10-20-1



Lubricate the following locations [Figure 10-20-1].

1. Lower Bucket Link.
2. Bucket Cylinder Rod End.
3. Upper Bucket Link.
4. Bucket Pivot Pin.

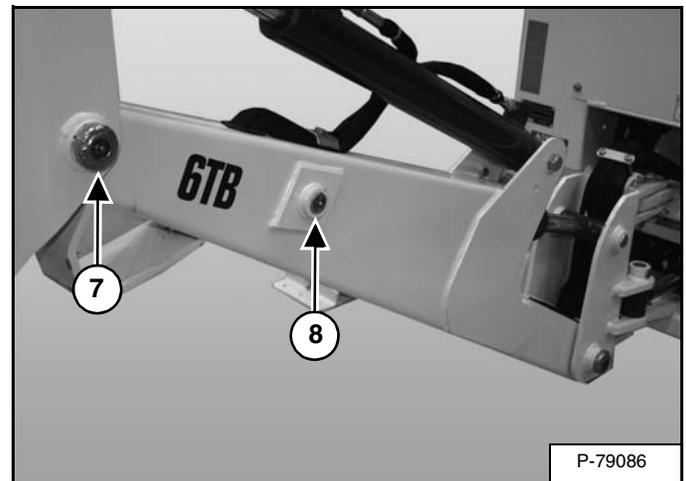
Figure 10-20-2



Lubricate the following locations [Figure 10-20-2].

5. Arm Cylinder Rod End.
6. Bucket Cylinder Base End.

Figure 10-20-3



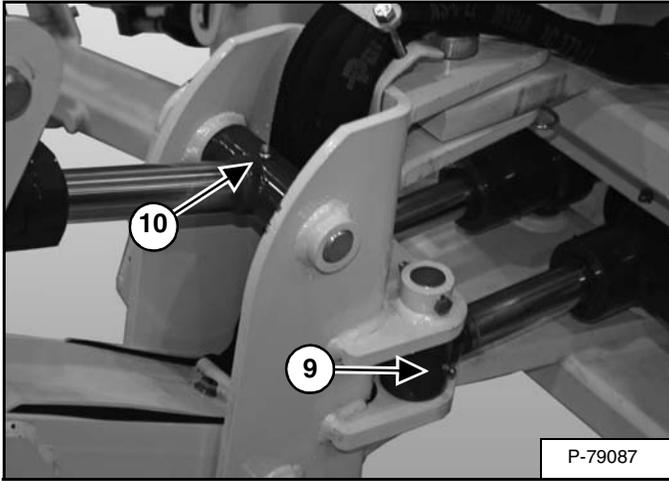
Lubricate the following locations [Figure 10-20-3].

7. Boom Pivot Pin.
8. Boom Cylinder Base End.

## LUBRICATING THE ATTACHMENT (CONT'D)

### Lubrication Locations (6TB) (Cont'd)

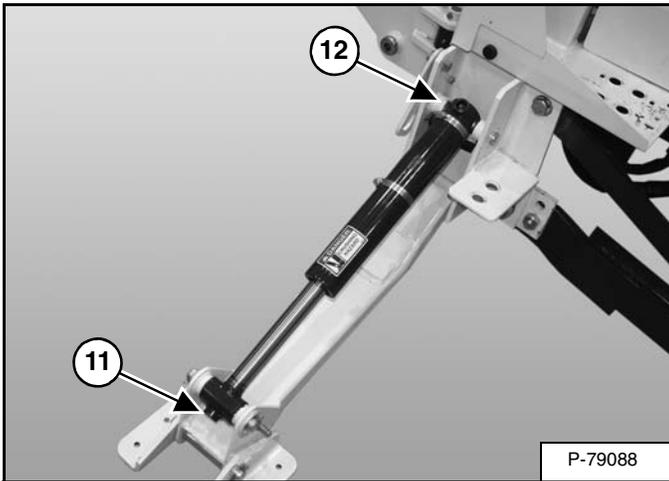
Figure 10-20-4



Lubricate the following locations [Figure 10-20-4].

- 9. Left Swing Cylinder Rod End.
- 10. Boom Cylinder Rod End.

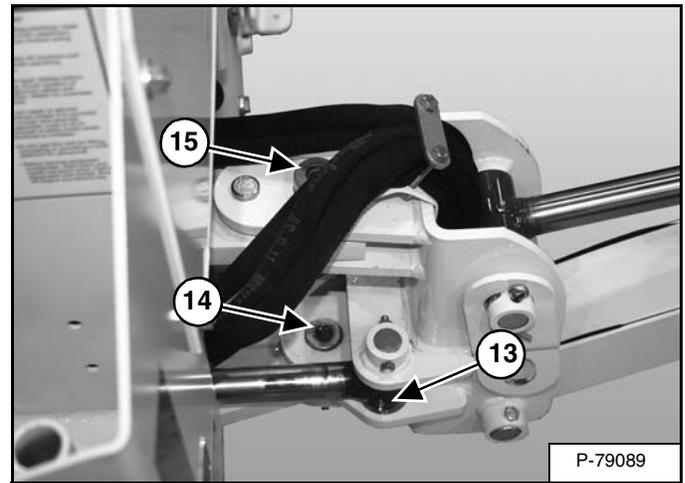
Figure 10-20-5



Lubricate the following locations [Figure 10-20-5].

- 11. Stabilizer Cylinder Rod End.
- 12. Stabilizer Cylinder Base End.

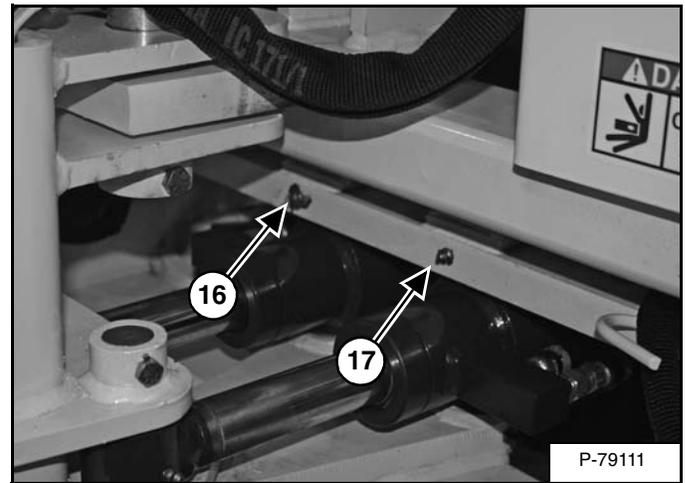
Figure 10-20-6



Lubricate the following locations [Figure 10-20-6].

- 13. Right Swing Cylinder Rod End.
- 14. Upper Swing Pin.
- 15. Lower Swing Pin.

Figure 10-20-7



Lubricate the following locations [Figure 10-20-7].

- 16. Right Swing Cylinder Bearing.
- 17. Left Swing Cylinder Bearing.

## LUBRICATING THE ATTACHMENT (CONT'D)

### Lubrication Locations (7TB & 8TB)

# WARNING

### AVOID INJURY OR DEATH

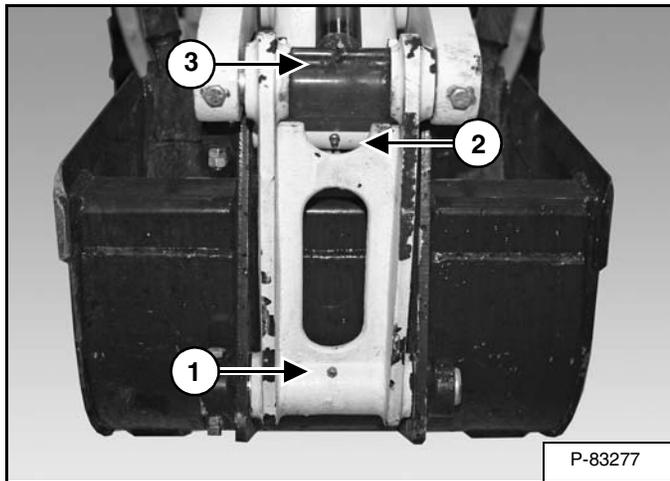
Always lower the backhoe boom, arm, bucket and stabilizers to the ground (or install the swing lock pin and engage the boom and stabilizer transport locks) and stop the compact tractor engine before making any adjustments on the backhoe or compact tractor.

W-2685-0208

Use a good quality lithium based multi-purpose grease. Add grease to the fittings until extra grease shows.

Lubricate the backhoe every **8 HOURS** of operation:

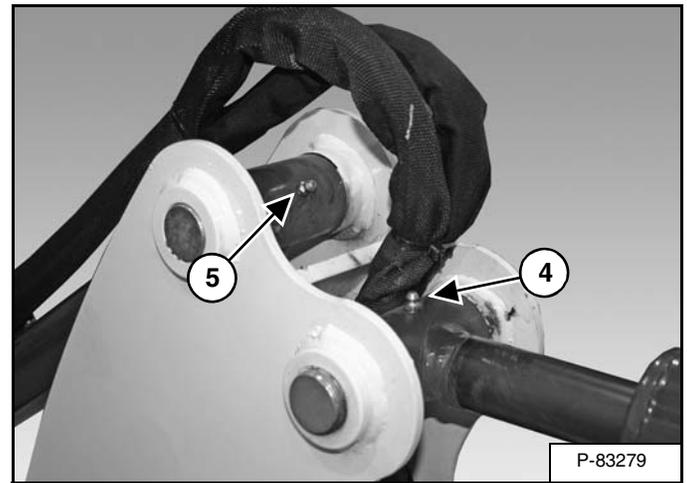
Figure 10-20-8



Lubricate the following locations [Figure 10-20-8].

1. Lower Bucket Link.
2. Bucket Pivot Pin.
3. Bucket Cylinder Rod End.

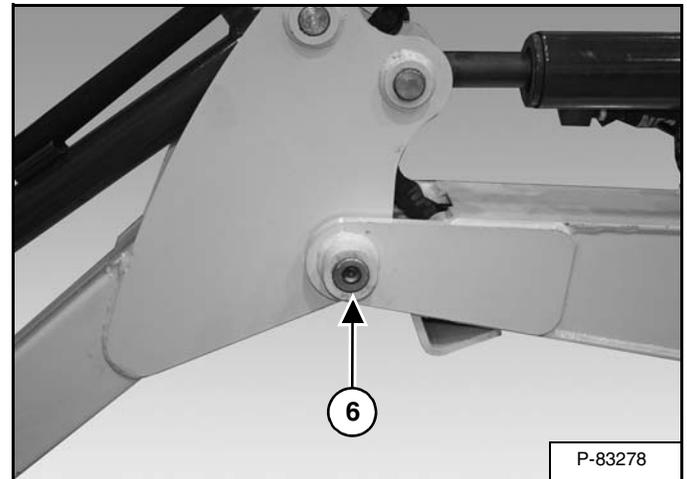
Figure 10-20-9



Lubricate the following locations [Figure 10-20-9].

4. Arm Cylinder Rod End.
5. Bucket Cylinder Base End.

Figure 10-20-10



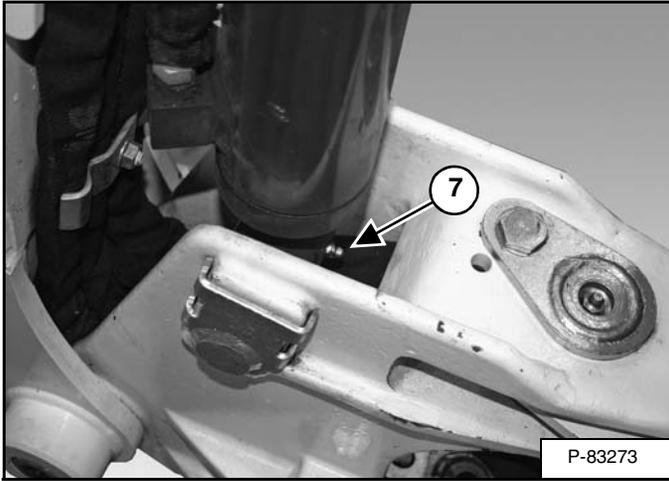
Lubricate the following locations [Figure 10-20-10].

6. Arm Pivot Pin.

## LUBRICATING THE ATTACHMENT (CONT'D)

### Lubrication Locations (7TB & 8TB) (Cont'd)

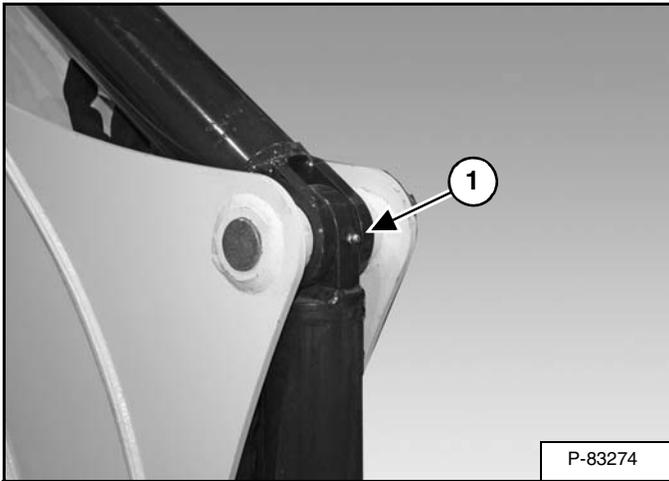
Figure 10-20-11



Lubricate the following locations [Figure 10-20-11].

7. Boom Cylinder Rod End.

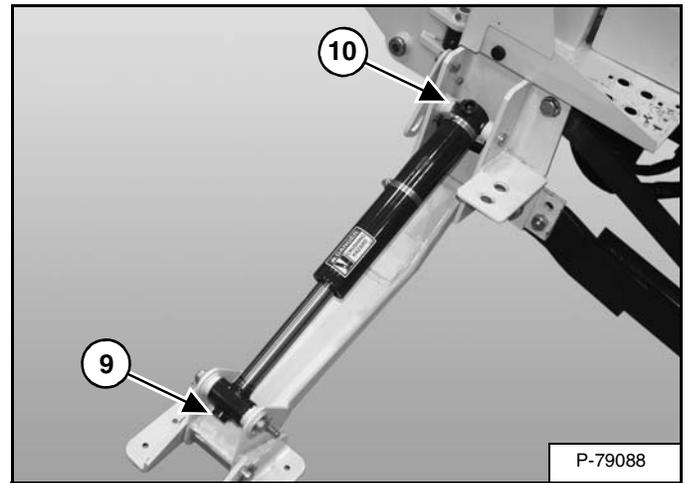
Figure 10-20-12



Lubricate the following locations [Figure 10-20-12].

8. Arm Cylinder Base End & Boom Cylinder Base End.

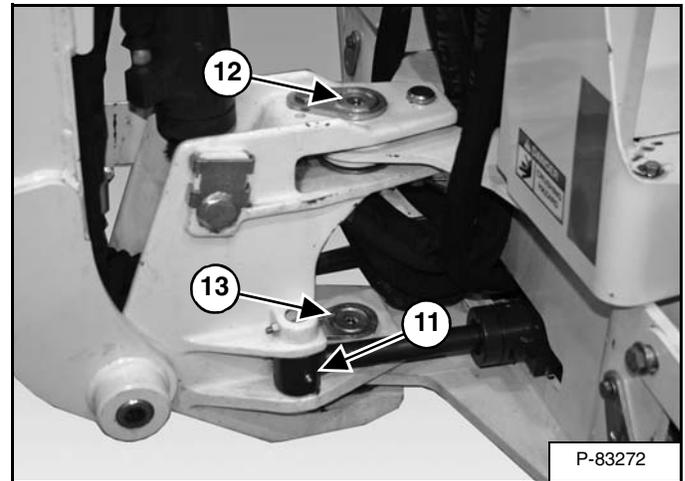
Figure 10-20-13



Lubricate the following locations [Figure 10-20-13].

9. Stabilizer Cylinder Rod End.
10. Stabilizer Cylinder Base End.

Figure 10-20-14



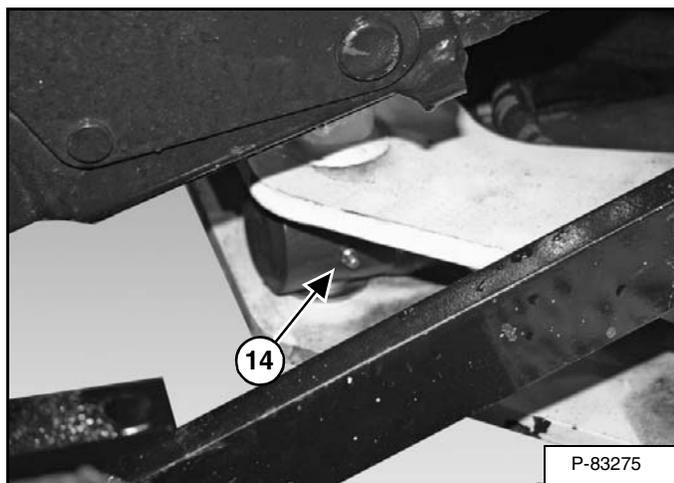
Lubricate the following locations [Figure 10-20-14].

11. Left Swing Cylinder Rod End.
12. Upper Swing Pin.
13. Lower Swing Pin.

## LUBRICATING THE ATTACHMENT (CONT'D)

### Lubrication Locations (7TB & 8TB) (Cont'd)

Figure 10-20-15



Lubricate the following locations [**Figure 10-20-15**].

14. Swing Cylinder Base. (Right Swing Cylinder Shown)



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## BUCKET TEETH

### Removal And Installation

# WARNING

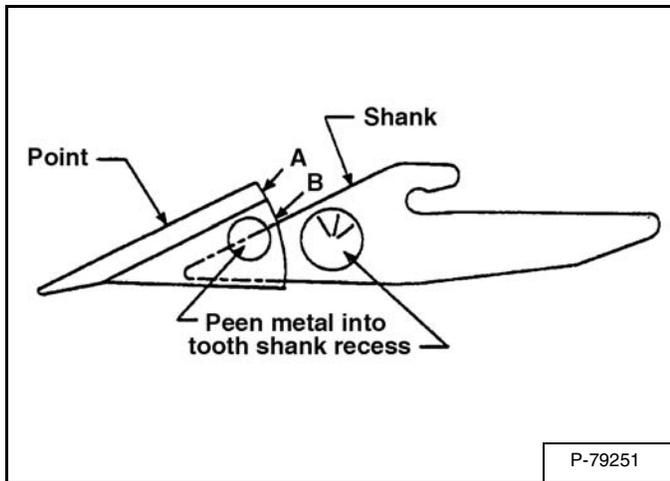
#### AVOID INJURY OR DEATH

Wear safety glasses to prevent eye injury when any of the following conditions exist:

- When fluids are under pressure.
- Flying debris or loose material is present.
- Engine is running.
- Tools are being used.

W-2019-0907

Figure 10-30-1



Bucket tooth points are self sharpening and will require little attention. However, points can be replaced when they become badly worn or broken.

Remove point from welded tooth shank by hammering at A on tooth point or by driving a chisel at B [Figure 10-30-1], just between tooth point box section and tooth shank. Install new point and anchor it to shank by peening at location shown.

If a tooth shank breaks off, becoming lost or damaged so that it cannot hold a tooth point, a new shank should be welded to bucket.

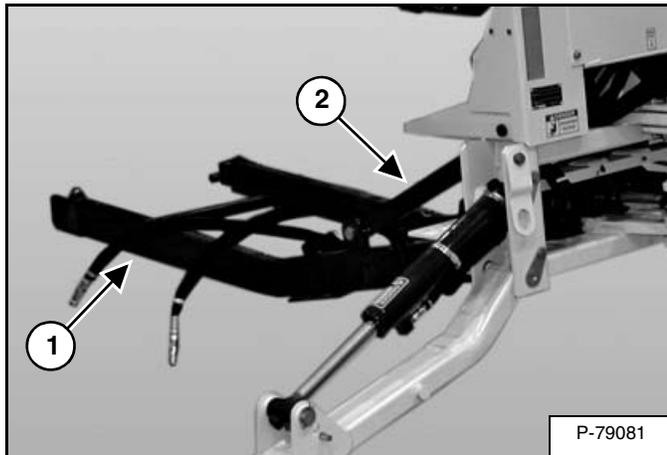


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## DAILY INSPECTION

### Backhoe Mounting Frame

Figure 10-40-1



Inspect the backhoe sub-frame (Item 1), linkage (Item 2) [Figure 10-40-1] and all welds on the backhoe for excessive wear or damage each time the backhoe is removed from the compact tractor.

Inspect all mounting pins, retaining pins, hardware, and all locks on the backhoe for excessive wear or damage. Replace any parts including decals and levers that are damaged, bent or missing. Keep all fasteners tight.

Look for cracked welds. Contact your Bobcat dealer for repair or replacement parts.

# IMPORTANT

Backhoe mounting bolts and nuts must be kept tightened. Retighten the bolts and nuts after the first 10 minutes of operation and every 8 hours after that.

I-2062-0295

### Hanger Brackets

Figure 10-40-2

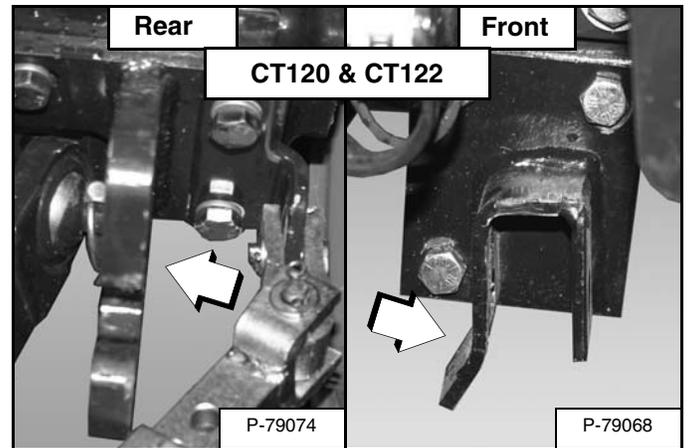


Figure 10-40-3

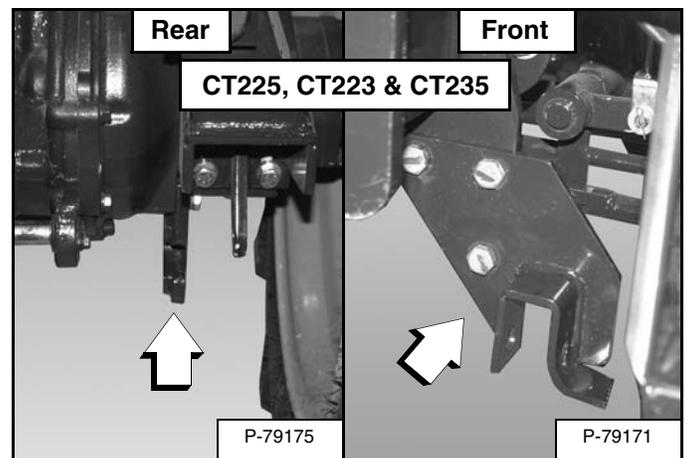
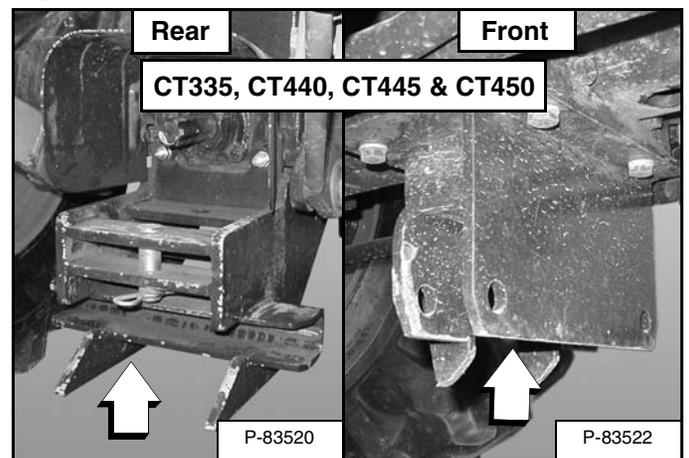


Figure 10-40-4



Inspect all mounting pins, retaining pins, and hardware on the front and rear hanger brackets on the compact tractor for excessive wear or damage. Replace any parts that are damaged, bent or missing. Keep all fasteners tight [Figure 10-40-2], [Figure 10-40-3] and [Figure 10-40-4].

Look for cracked welds. Contact your Bobcat dealer for repair or replacement parts.



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## HYDRAULIC SYSTEM

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Disassembly And Assembly .....	20-61-4

## CONTROL VALVE (6TB)

### Removal And Installation

# ! WARNING

### AVOID INJURY OR DEATH

Wear safety glasses to prevent eye injury when any of the following conditions exist:

- When fluids are under pressure.
- Flying debris or loose material is present.
- Engine is running.
- Tools are being used.

W-2019-0907

# ! WARNING

Hydraulic fluid escaping under pressure can have sufficient force to enter a person's body by penetrating the skin. This can cause serious injury and possible death if proper medical treatment by a physician familiar with this injury is not received immediately.

W-2145-0290

# IMPORTANT

When repairing hydrostatic and hydraulic systems, clean the work area before disassembly and keep all parts clean. Always use caps and plugs on hoses, tubelines and ports to keep dirt out. Dirt can quickly damage the system.

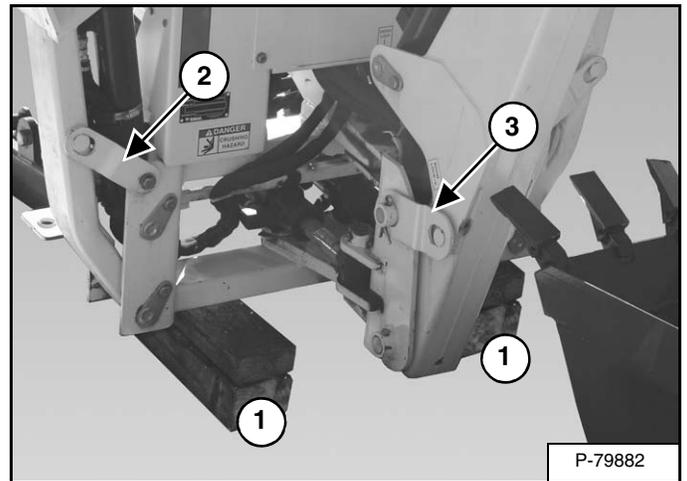
I-2003-0888

# ! WARNING

Check for correct function after adjustments, repairs or service. Failure to make correct repairs or adjustments can cause injury or death.

W-2004-1285

Figure 20-10-1

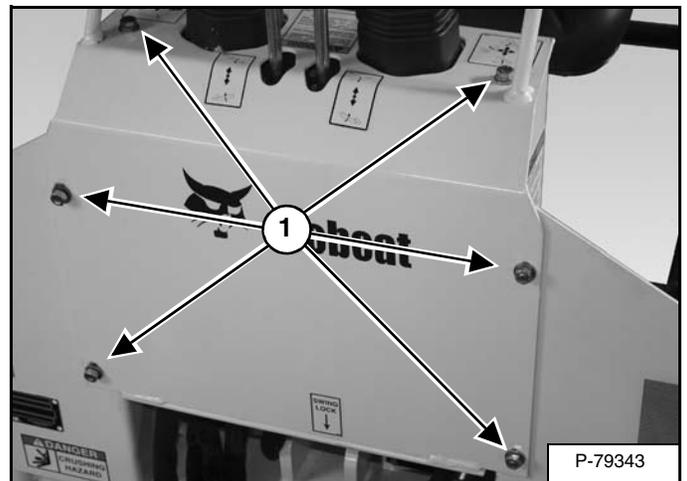


Place blocks (Item 1) [Figure 20-10-1] under the backhoe frame before removing the backhoe from the compact tractor.

The stabilizer locks (Item 2) and boom lock (Item 3) [Figure 20-10-1] must be in the locked position before removing the backhoe from the compact tractor.

Remove the backhoe from the compact tractor. (See the 6TB Backhoe's Operation & Maintenance Manual for the correct procedure.)

Figure 20-10-2



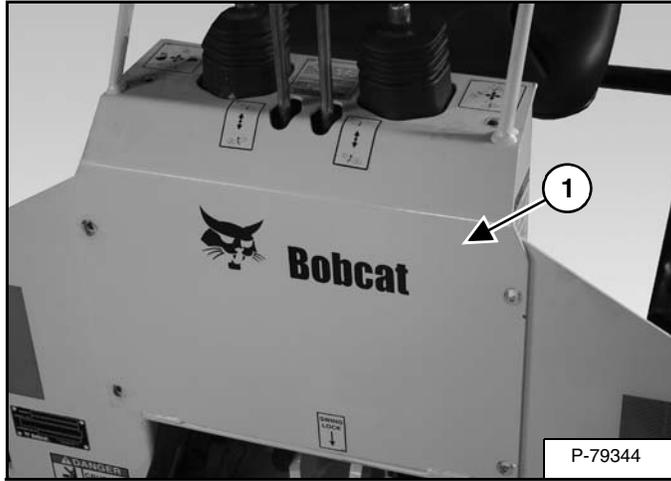
Remove the six nuts (Item 1) [Figure 20-10-2], bolts and washers.

**Installation:** Tighten bolts 180 - 200 in.-lb. (21 - 23 N•m) torque.

## CONTROL VALVE (6TB) (CONT'D)

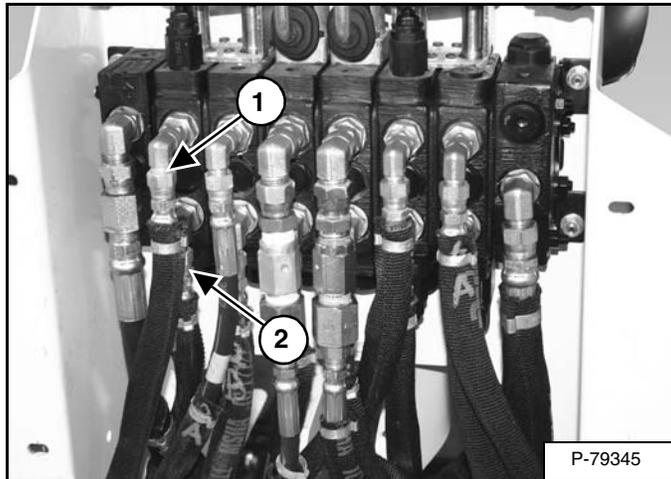
### Removal And Installation (Cont'd)

Figure 20-10-3



Remove the control valve cover (Item 1) [Figure 20-10-3].

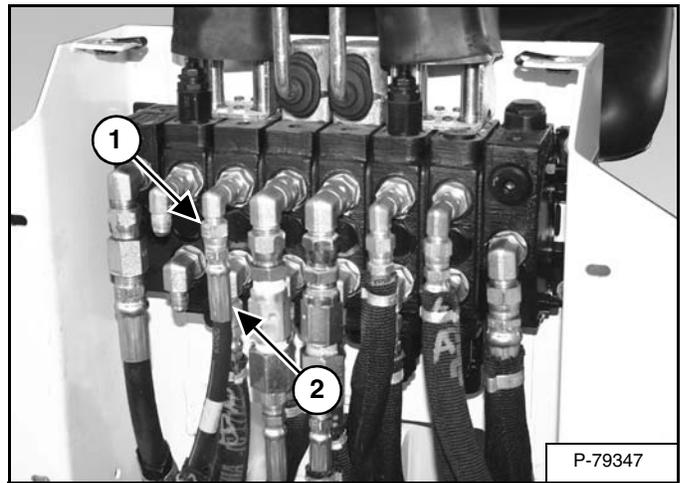
Figure 20-10-4



Remove hydraulic hoses (Items 1 & 2) [Figure 20-10-4].

**Installation:** Hydraulic hose (Item 1) is connected to the base end of the arm cylinder. Hydraulic hose (Item 2) [Figure 20-10-4] is connected to the rod end of the arm cylinder.

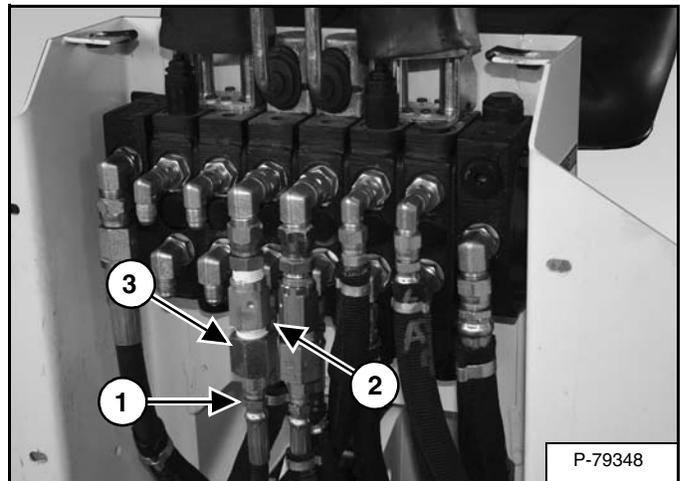
Figure 20-10-5



Remove hydraulic hoses (Items 1 & 2) [Figure 20-10-5].

**Installation:** Hydraulic hose (Item 1) is connected to the base end of the bucket cylinder. Hydraulic hose (Item 2) [Figure 20-10-5] is connected to the rod end of the bucket cylinder.

Figure 20-10-6



Remove hydraulic hoses (Items 1 & 2) [Figure 20-10-6].

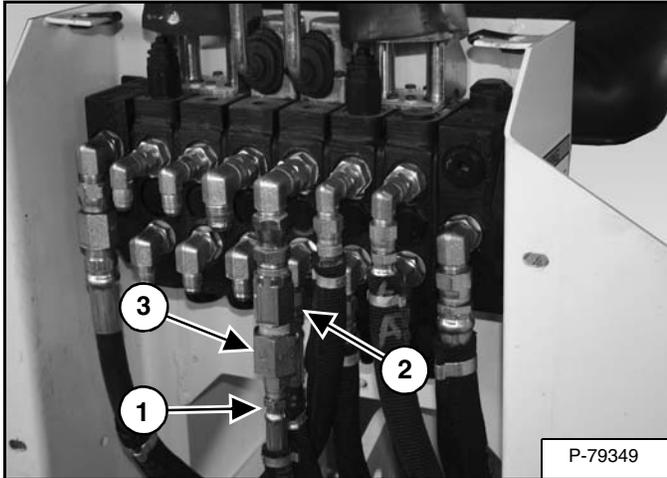
**Installation:** Hydraulic hose (Item 1) is connected to the rod end of the right hand stabilizer cylinder. Hydraulic hose (Item 2) [Figure 20-10-6] is connected to the base end of the right hand stabilizer cylinder.

**NOTE:** Inspect the flow regulator (Item 3) [Figure 20-10-6]. Remove and replace if necessary.

## CONTROL VALVE (6TB) (CONT'D)

### Removal And Installation (Cont'd)

Figure 20-10-7

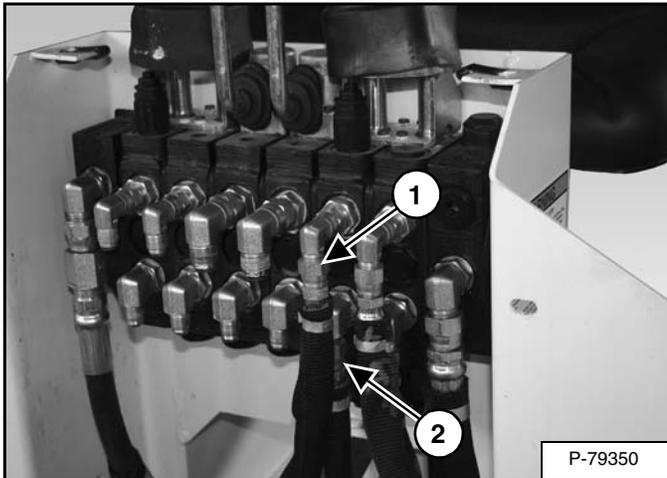


Remove hydraulic hoses (Items 1 & 2) [Figure 20-10-7].

**Installation:** Hydraulic hose (Item 1) is connected to the rod end of the left hand stabilizer cylinder. Hydraulic hose (Item 2) [Figure 20-10-7] is connected to the base end of the left hand stabilizer cylinder.

**NOTE:** Inspect the flow regulator (Item 3) [Figure 20-10-7]. Remove and replace if necessary.

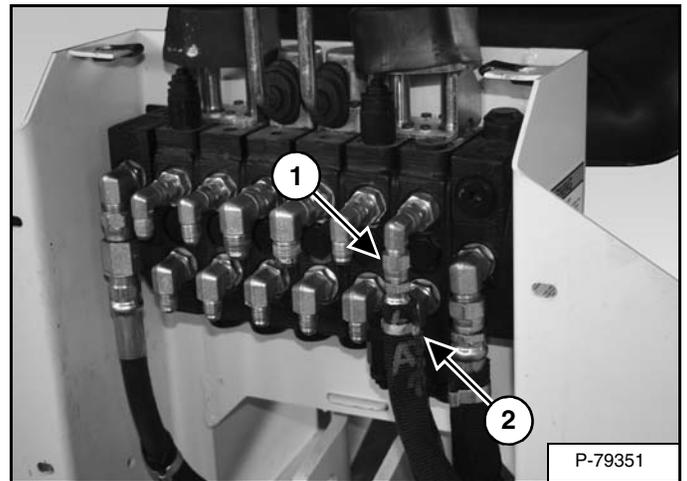
Figure 20-10-8



Remove hydraulic hoses (Items 1 & 2) [Figure 20-10-8].

**Installation:** Hydraulic hose (Item 1) is connected to the outside fitting on the left swing cylinder. Hydraulic hose (Item 2) [Figure 20-10-8] is connected to the outside fitting on the right swing cylinder.

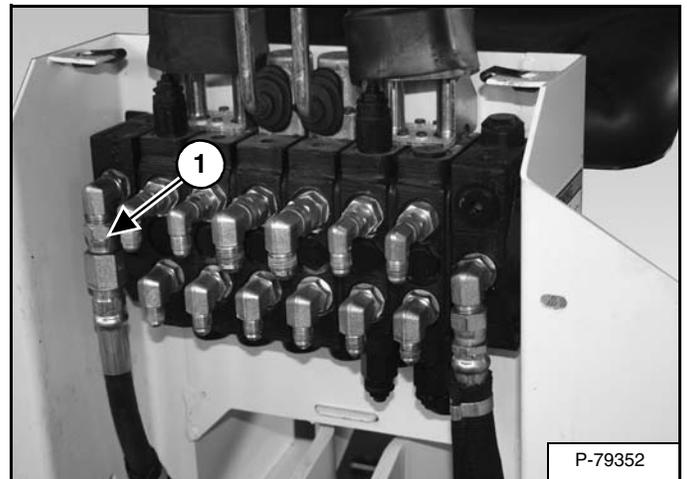
Figure 20-10-9



Remove hydraulic hoses (Items 1 & 2) [Figure 20-10-9].

**Installation:** Hydraulic hose (Item 1) is connected to the rod end of the boom cylinder. Hydraulic hose (Item 2) [Figure 20-10-9] is connected to the base end of the boom cylinder.

Figure 20-10-10



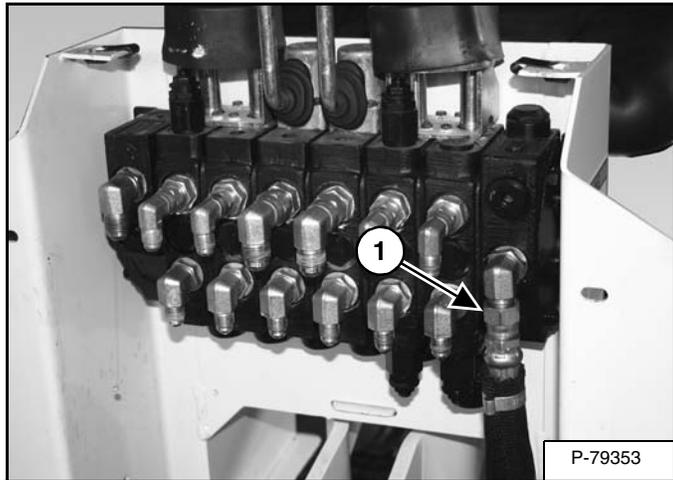
Remove hydraulic hose (Item 1) [Figure 20-10-10].

**Installation:** Hydraulic hose (Item 1) [Figure 20-10-10] is installed into the "T" Port on the outlet side of the control valve.

**CONTROL VALVE (6TB) (CONT'D)**

**Removal And Installation (Cont'd)**

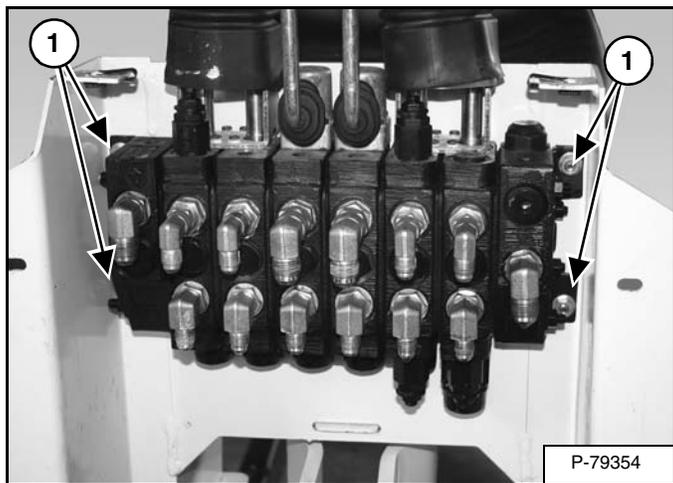
**Figure 20-10-11**



Remove hydraulic hose (Item 1) [Figure 20-10-11].

**Installation:** Hydraulic hose (Item 1) [Figure 20-10-11] is installed into the "P" Port on the inlet side of the control valve.

**Figure 20-10-12**

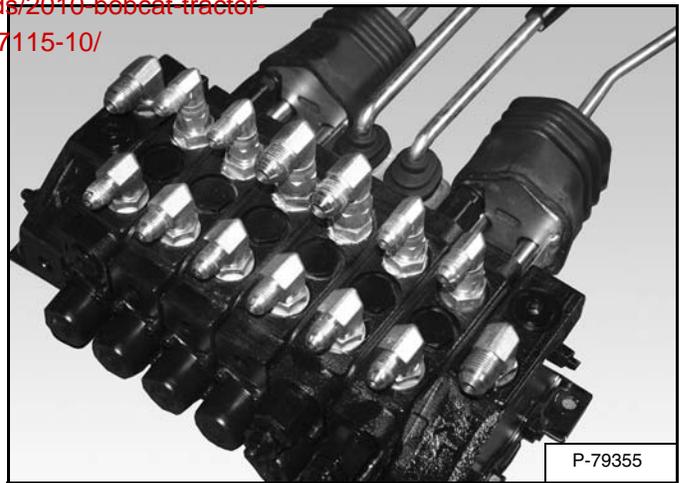


Remove the four nuts (Item 1) [Figure 20-10-12], washers and bolts.

**Installation:** Tighten bolts 25 - 28 ft.-lb. (34 - 38 N•m) torque.

Remove control valve.

**Figure 20-10-13**



Remove the hydraulic fittings [Figure 20-10-13].

**NOTE:** Mark hydraulic fittings for correct installation.

**Installation:** Tighten all hydraulic fittings to the correct torque. (See HYDRAULIC CONNECTION SPECIFICATIONS on Page SPEC-40-1.)