

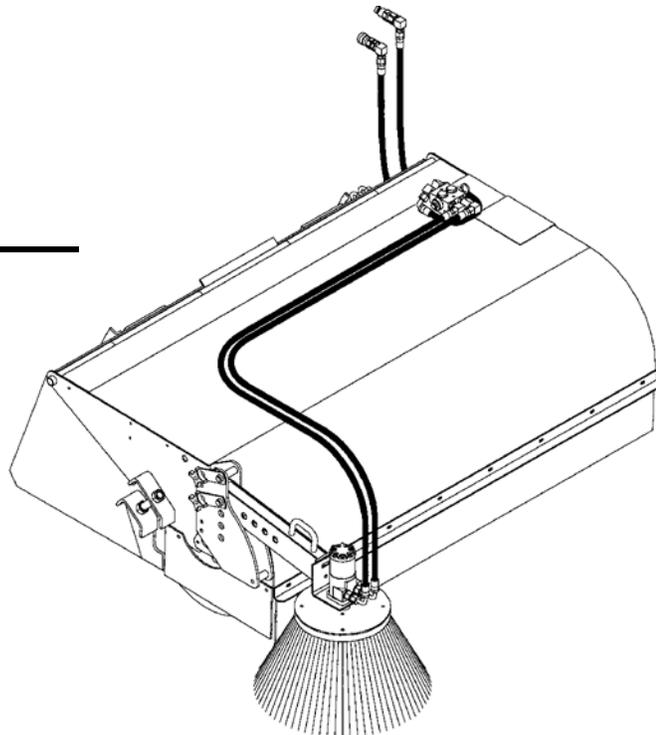
# **SWEeper/ GUTTER BRUSH**



# **Bobcat®**

# **Service Manual**

- 44" (S/N 984600101 & Above)**
- 54" (S/N 439500101 - 439500891)**
- 54" (S/N 782699191 & Above)**
- 60" (S/N 434700101 - 434706595)**
- 60" (S/N 714400101 & Above)**
- 72" (S/N 435400101 - 435401434)**
- 72" (S/N 783700101 & Above)**



Product: 2006 Bobcat Sweeper/Gutter Brush Service Repair Workshop Manual  
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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-2003-0903



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



B-10731a

-  Never service attachments without instructions. See Operation & Maintenance Manual and Attachment Service Manual.
-  Cleaning and maintenance are required daily.
-  Never service or adjust attachment with the engine running unless instructed to do so in manual.
-  Always lower the attachment 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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**SAFETY AND  
MAINTENANCE**

**HYDRAULIC  
SYSTEM**

**MAIN FRAME**

**SPECIFICATIONS  
AND SCHEMATICS**

**CALIFORNIA  
PROPOSITION 65 WARNING**

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects and other reproductive harm.



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## SERIAL NUMBER LOCATION

Figure 1

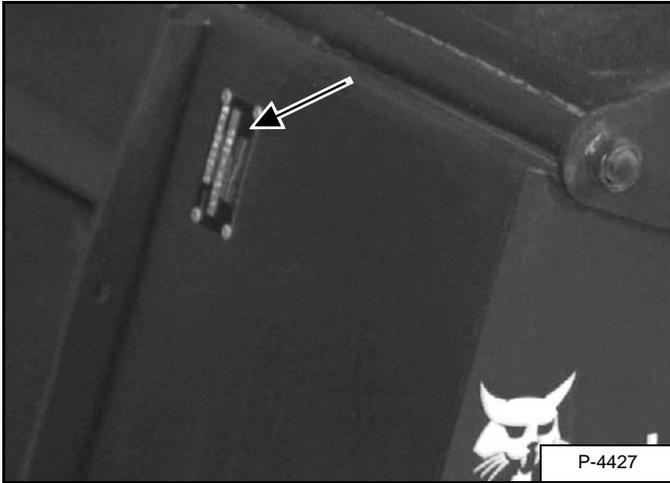


Figure 2

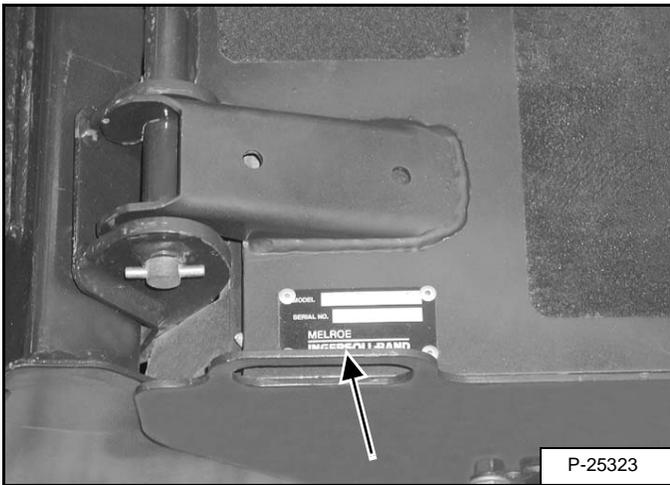
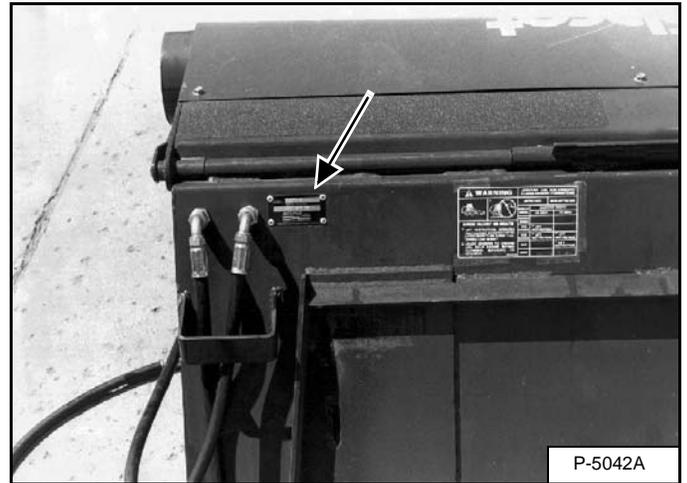


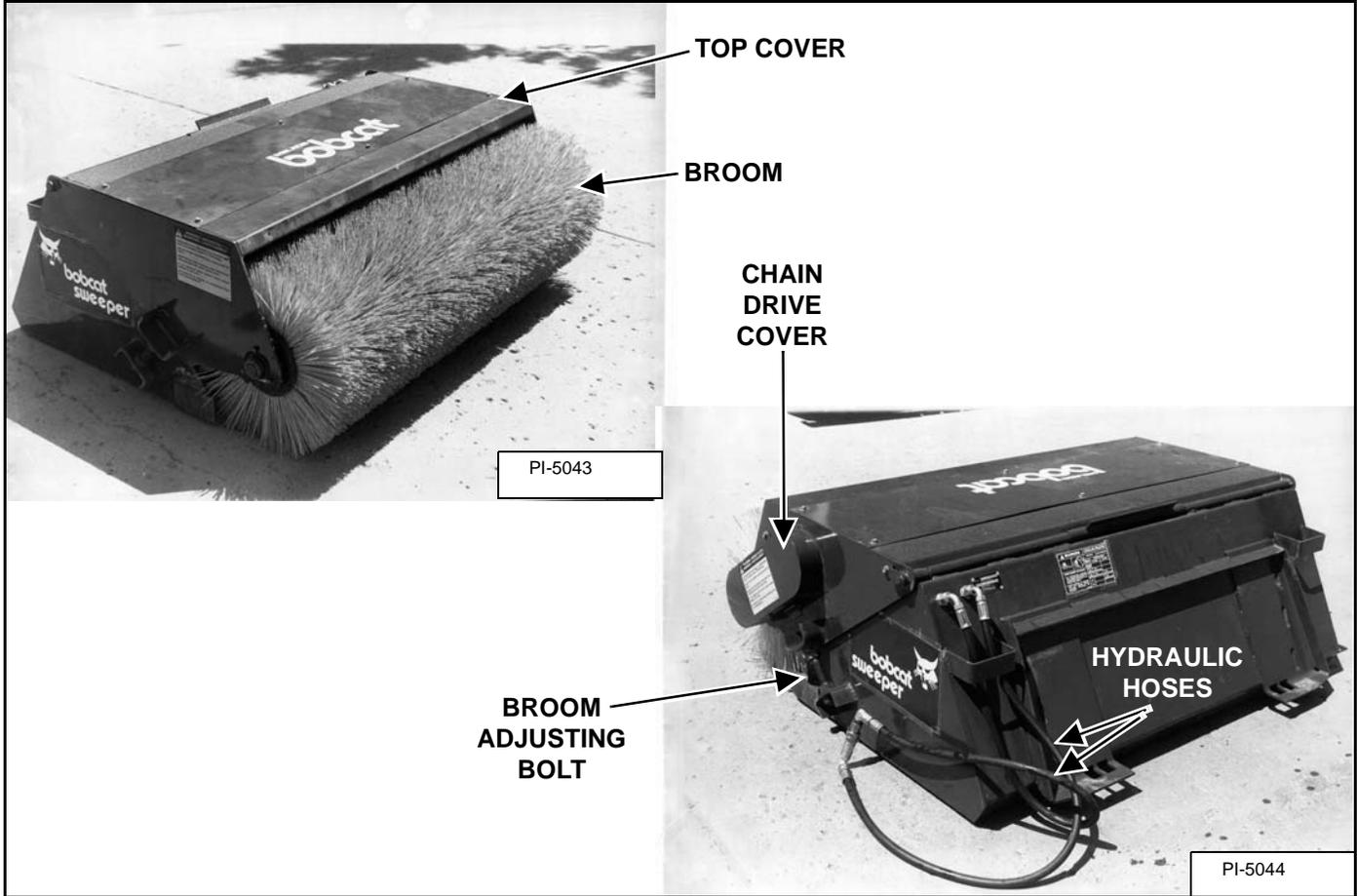
Figure 3



It is important to make the correct reference to the serial number of the Bobcat Sweeper when making repairs or ordering parts. Early or later models (identification made by serial number) may use different parts, or it may be necessary to use different procedures in doing a specific operation. The attachment serial number is on the right rear side of the attachment [Figure 1] and [Figure 2] (later models) or near the hydraulic hoses [Figure 3] (earlier models).

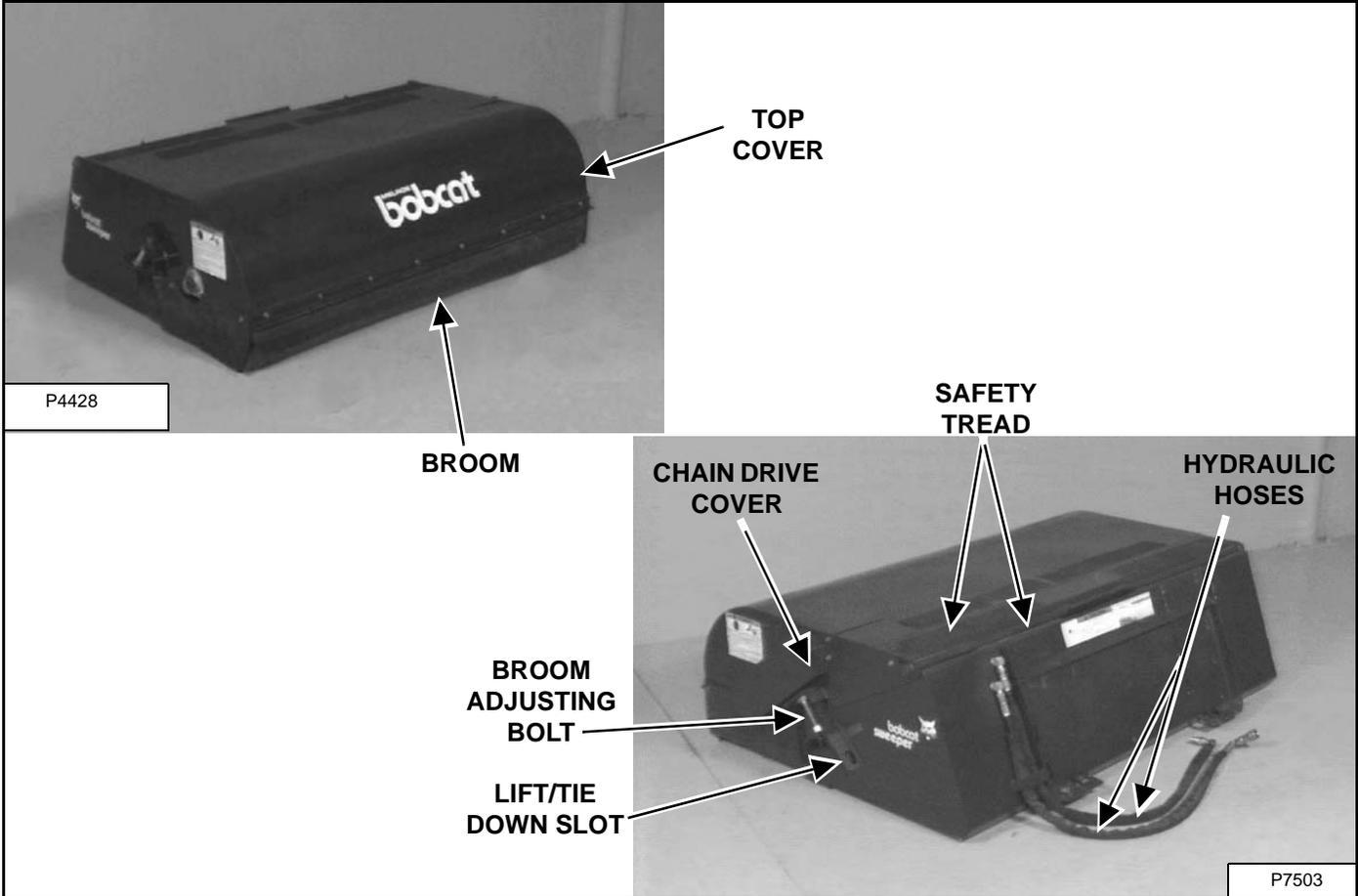
**IDENTIFICATION**

(S/N 782600101 & Above), (S/N 714400101 & Above) And (S/N 783700101 & Above)



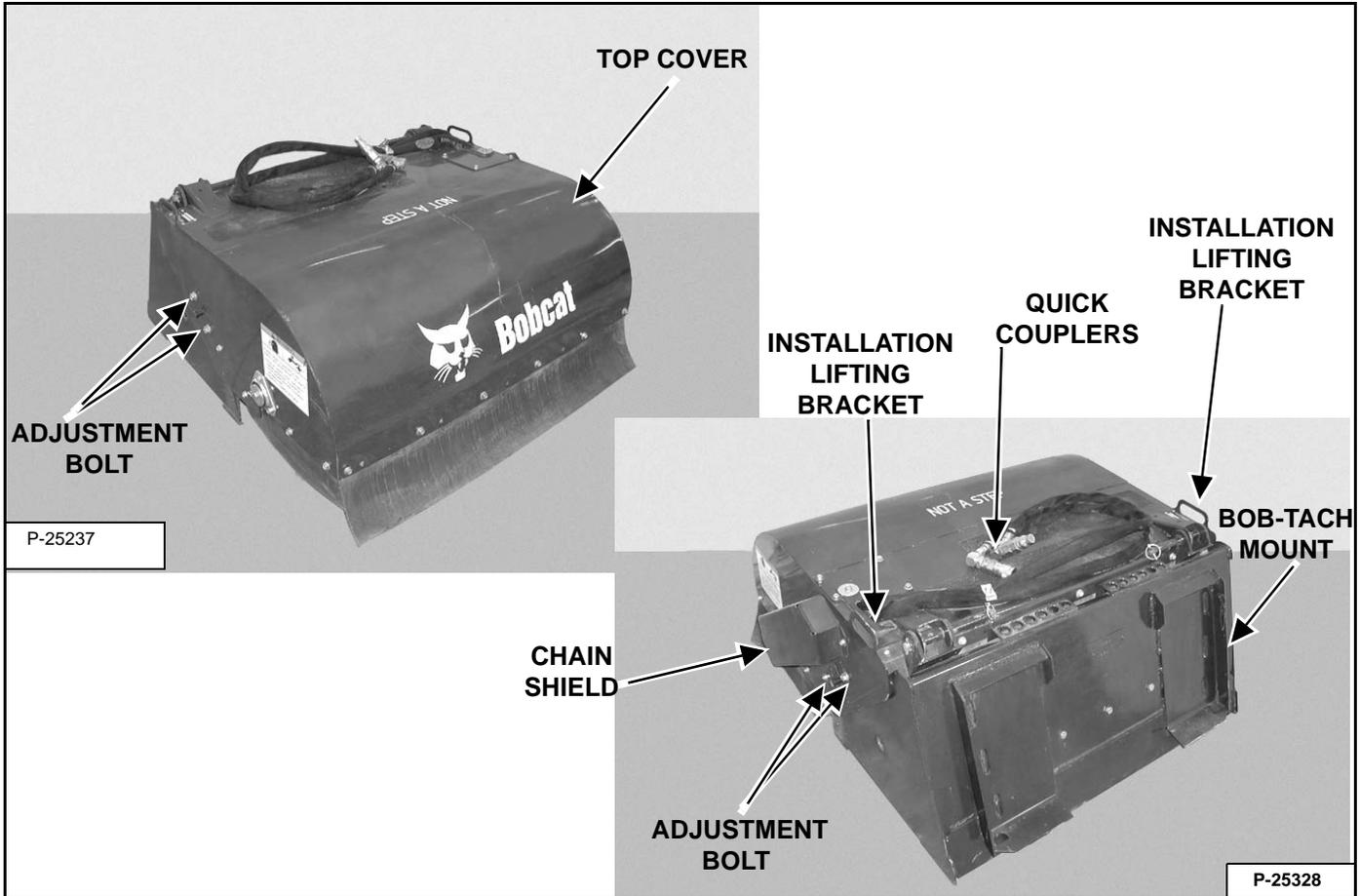
**IDENTIFICATION (CONT'D)**

**(S/N 439500101-439500891), (S/N 434700101-434706595) And (S/N 435400101-435401434)**



**IDENTIFICATION (CONT'D)**

**(S/N 984600101 & ABOVE)**



## SAFETY AND MAINTENANCE

## SAFETY AND MAINTENANCE

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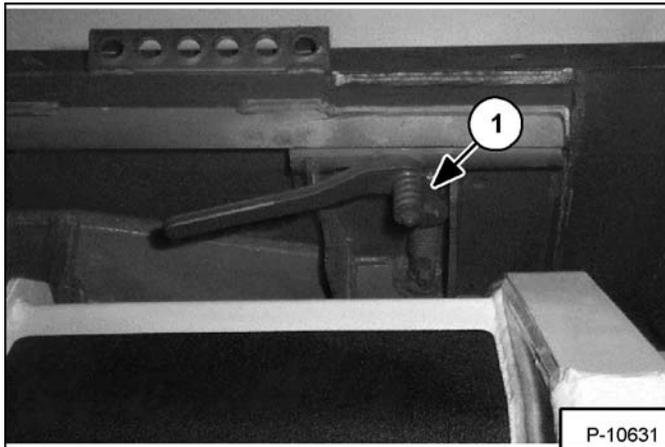


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## INSPECTION

### Hand Lever Bob-Tach Inspection

Figure 10-10-1



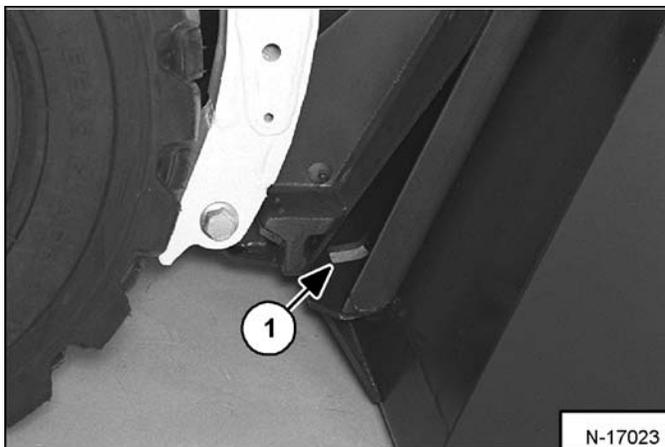
Move the Bob-Tach levers to engage the wedges [Figure 10-10-1]. The levers and wedges must move freely.

## WARNING

Bob-Tach wedges must extend through the holes in attachment. Lever(s) must be fully down and locked. Failure to secure wedges can allow attachment to come off and cause injury or death.

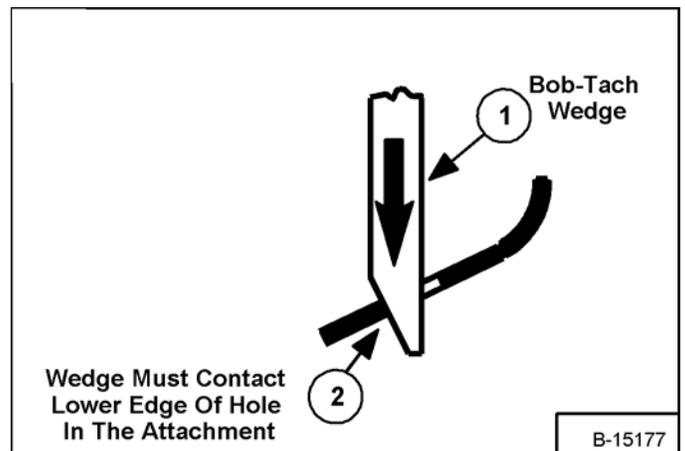
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Figure 10-10-2



The wedges must extend through the holes in the attachment mounting frame (Item 1) [Figure 10-10-2].

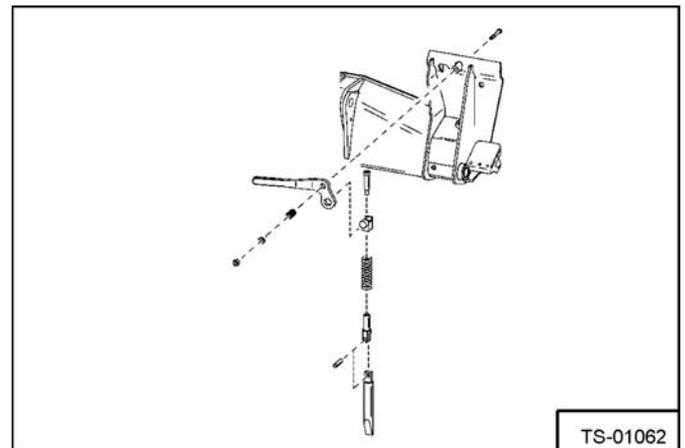
Figure 10-10-3



The spring loaded wedge (Item 1) must extend through the holes in the attachment mounting frame and must contact the lower edge of the hole in the attachment (Item 2) [Figure 10-10-3].

If the wedge does not contact the lower edge of the hole the attachment will be loose and can come off the Bob-Tach.

Figure 10-10-4



Inspect the mounting frame on the attachment and the Bob-Tach, linkages and wedges for excessive wear or damage [Figure 10-10-4]. Replace any parts that are damaged, bent, or missing. Keep all fasteners tight.

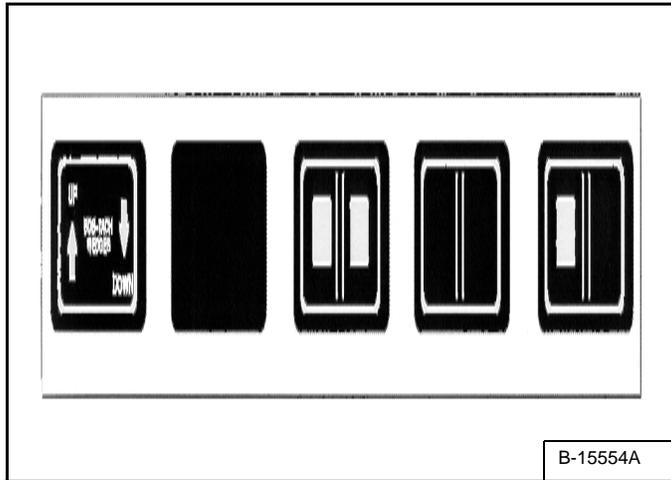
Look for cracked welds. Contact your Bobcat dealer for repair or replacement parts.

Lubricate the wedges. (See the correct loader Operation & Maintenance Manual for *LUBRICATION OF THE BOBCAT LOADER*).

## INSPECTION (CONT'D)

### Power Bob-Tach Inspection

Figure 10-10-5



Push and Hold the Bob-tach “wedges up” switch until wedges are fully raised. Push and Hold the Bob-tach “wedges down” switch [Figure 10-10-5] until the wedges are fully down. The wedges must move freely.

Figure 10-10-6

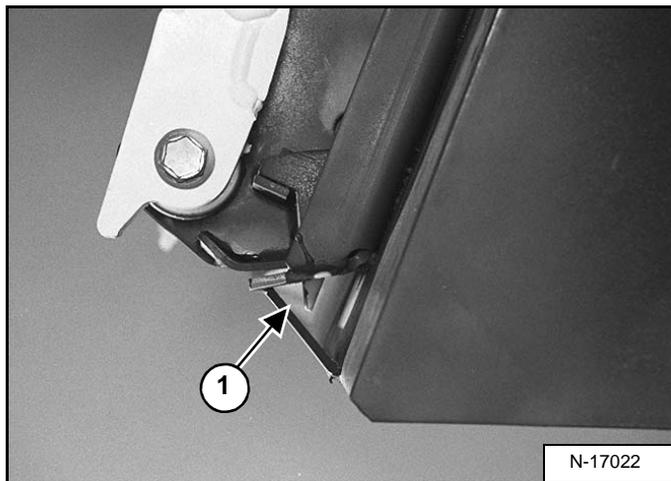
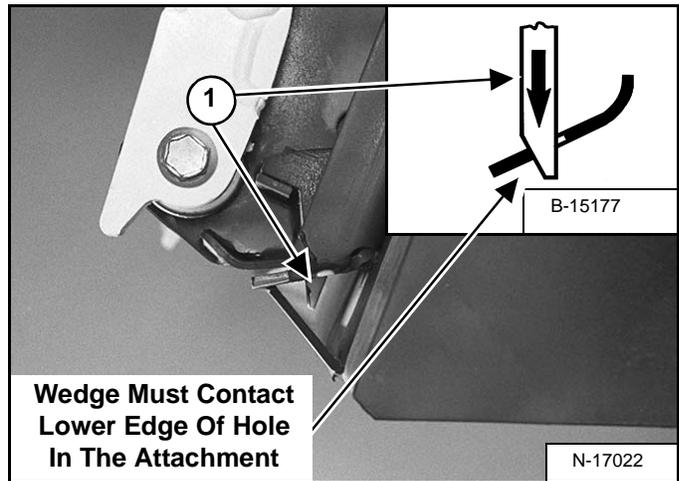


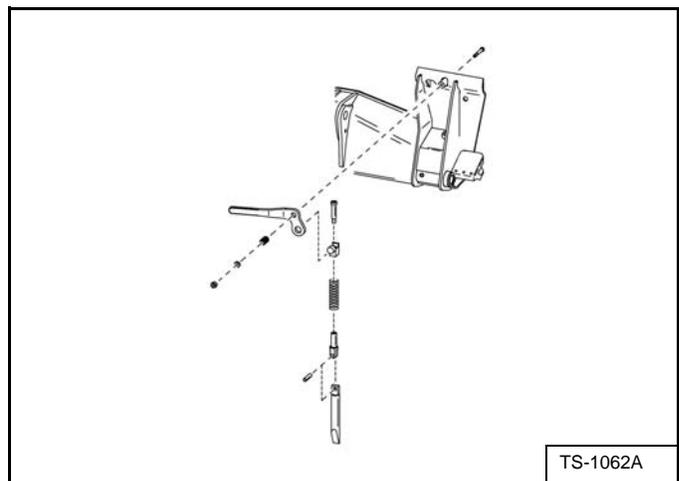
Figure 10-10-7



The spring loaded wedge (Item 1) [Figure 10-10-6] & [Figure 10-10-7] must extend through the holes in the attachment mounting frame and must contact the lower edge of the hole in the attachment (Item 2) [Figure 10-10-7].

If the wedge does not contact the lower edge of the hole, the attachment will be loose and can come off the Bob-tach.

Figure 10-10-8



Inspect the mounting frame on the attachment and the Bob-tach, linkages and wedges for excessive wear or damage [Figure 10-10-8]. Replace any parts including decals and levers that are damaged, bent, or missing. Keep all fasteners tight. Inspect the hoses and fittings for leaks.

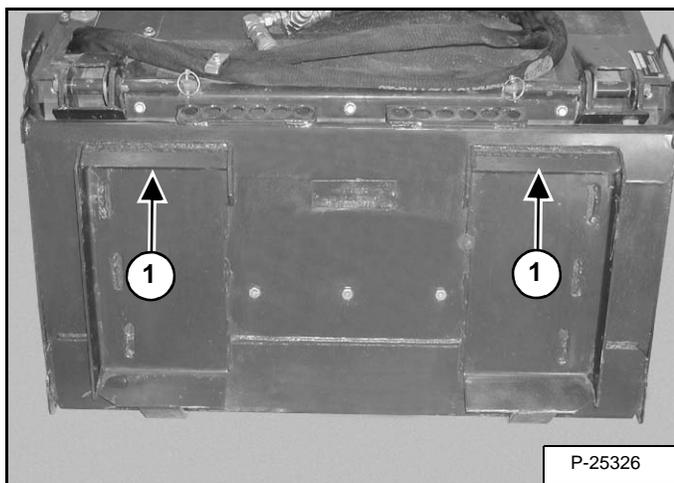
Look for cracked welds. Contact your Bobcat dealer for repair or replacement parts.

Lubricate the wedges (see the correct Loader Operation & Maintenance Manual for LUBRICATION OF THE BOBCAT LOADER).

## INSPECTION (CONT'D)

### Sweeper Inspection

Figure 10-10-9



Inspect the sweeper mounting flange (Item 1) [Figure 10-10-9] and all welds on the sweeper mount for wear and damage each time the sweeper is removed from the loader.



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## ADJUSTMENT OF STOP BOLTS

(S/N 439500101-439500891), (S/N 434700101-434706595) And (435400101-435401434)

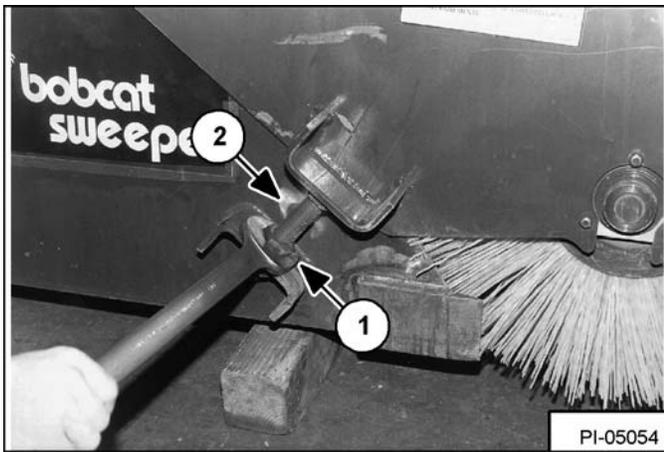


Wear safety glasses to prevent eye injury when any of the following conditions exist:

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

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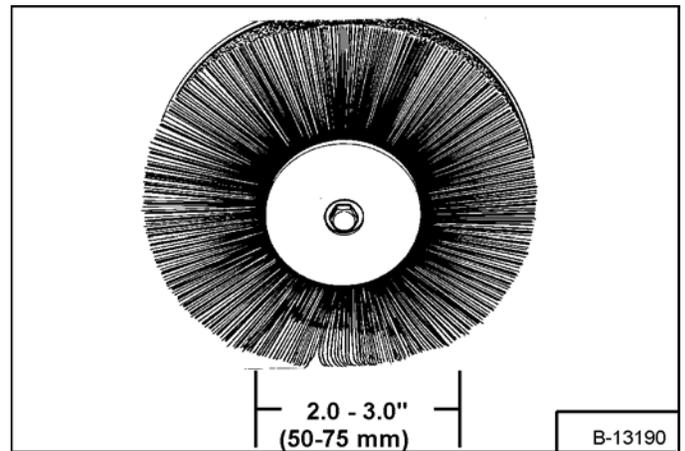
Figure 10-20-1



Lower the sweeper attachment onto blocks [Figure 10-20-1].

Loosen the lock nut (Item 1) on the adjustment bolt (Item 2) [Figure 10-20-1].

Figure 10-20-2



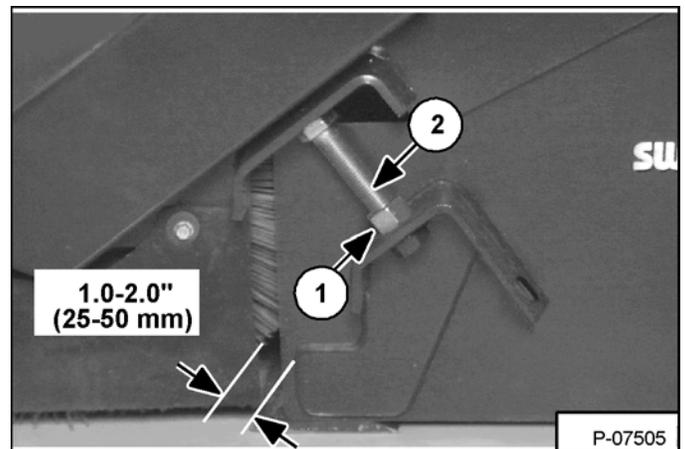
Turn the adjustment bolts (both sides) in or out until the broom bristles have a 2.0 -3.0 inches (50-75 mm) ground contact patterns [Figure 10-20-2].

Check adjustment periodically for bristle and cutting edge wear.

(S/N 782600101 & Above), (S/N 714400101 & Above)  
And (S/N 783700101 & Above)

Raise the sweeper cutting edge above the ground level.

Figure 10-20-3



Loosen the lock nut (Item 1) on the adjustment bolt (Item 2) [Figure 10-20-3].

Turn the adjustment bolts (both sides) in or out until the broom bristles have a 1.0 -2.0 inches (25-50 mm) distance between bristles and cutting edge [Figure 10-20-3].

Check adjustment periodically for bristle and cutting edge wear.

## ADJUSTMENT OF STOP BOLTS (CONT'D)

(S/N 984600101 & Above)

Figure 10-20-4

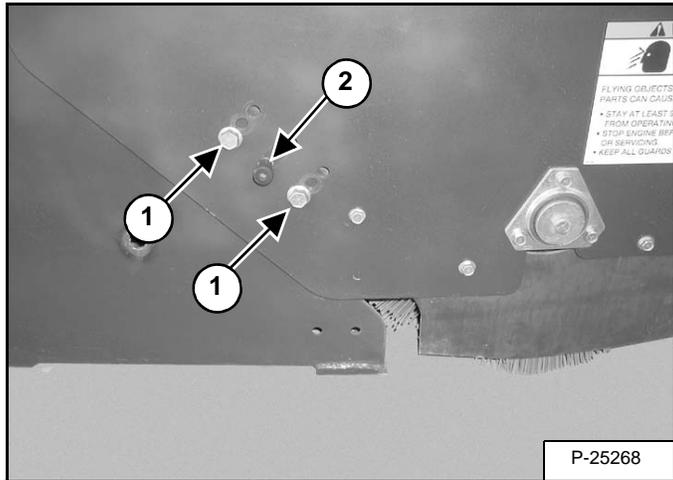
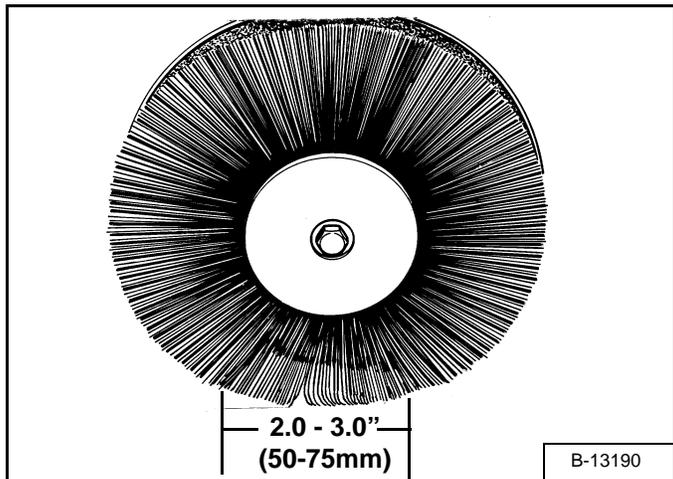


Figure 10-20-5



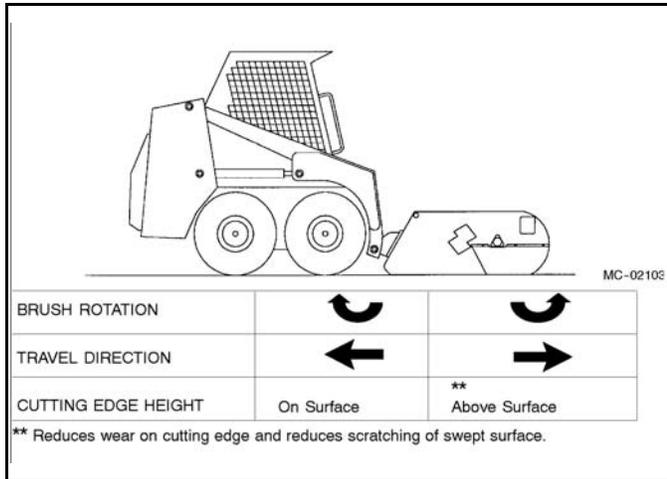
Remove the bolts (Item 1) and move the adjustment block (Item 2) [Figure 10-20-4] to the position needed to maintain the recommended 2-3 inch (50-76 mm) contact pattern [Figure 10-20-5].

Tighten the bolts to 90-100 ft.-lb. (125-135 N•m) torque.

Check adjustment periodically for bristle and cutting edge wear.

## CUTTING EDGE WEAR

Figure 10-30-1



For maximum life from the bucket cutting edge operate the sweeper in the forward travel direction with the cutting edge 1.0-2.0 inches (25-50 mm) above the swept surface. [Figure 10-30-1].



**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.**

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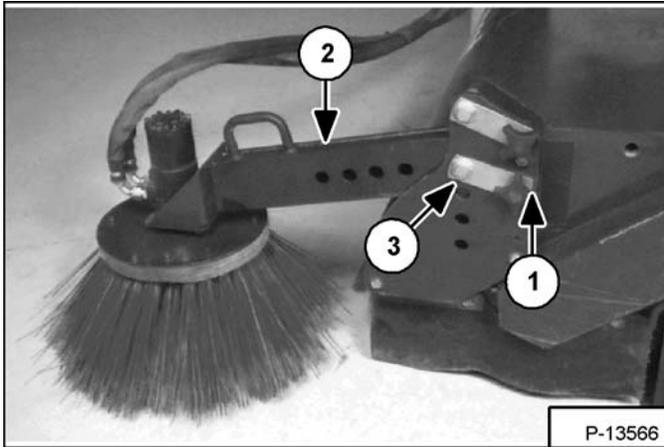
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## GUTTER BRUSH

### Adjusting The Brush

As the brush wears, the brush will need to be lowered to keep the same angle.

**Figure 10-40-1**



Remove the nut (Item 1) [Figure 10-40-1].

Hold the pivot arm (Item 2), and remove the pivot pin (Item 3) [Figure 10-40-1].

Lower the arm to the next hole.

Install the pin and nut. Tighten the nut.



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## TROUBLESHOOTING

### Chart

 <b>WARNING</b>	<b>Instructions are necessary before operating or servicing machine. Read and understand the Operation &amp; Maintenance Manual, 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.</b>	W-2003-0199
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If the Sweeper is not working correctly, check the hydraulic system of the loader thoroughly before making any repairs on the Sweeper. Sweeper problems can be affected by a loader hydraulic system that is not operating to specifications.

If the loader operation is found to be correct, use the following troubleshooting chart to locate and correct problems with the Sweeper.

TROUBLESHOOTING THE SWEEPER		
PROBLEM	CAUSE	CORRECTION
Broom will not rotate.	Auxiliary hydraulics not engaged	Engage auxiliary hydraulics.
Broom bristles wear quickly.	Too much down pressure being applied to the broom.	Use the correct amount of down pressure needed for the conditions present.
Broom operation not effective.	Broom out of adjustment.	Adjust broom.
	Broom bristles worn.	Replace broom bristles.



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## HYDRAULIC SYSTEM

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## HYDRAULIC SYSTEM

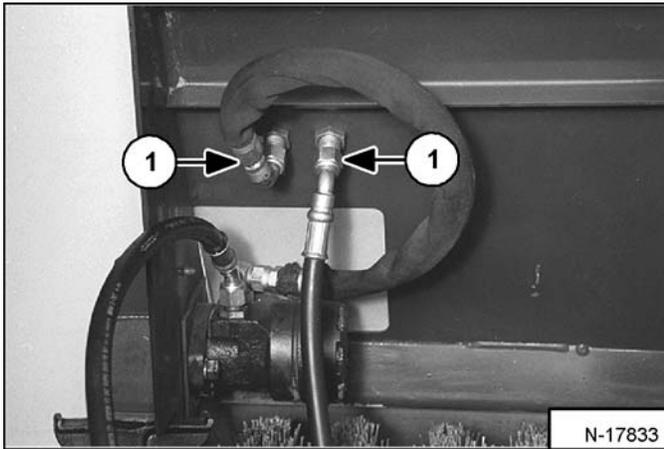


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## CONTROL VALVE

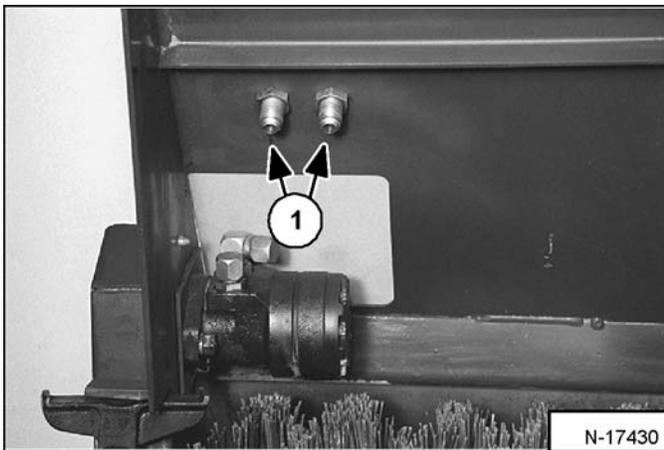
### Removal And Installation

Figure 20-10-1



Mark and remove the two hoses (Item 1) [Figure 20-10-1] from the valve.

Figure 20-10-2



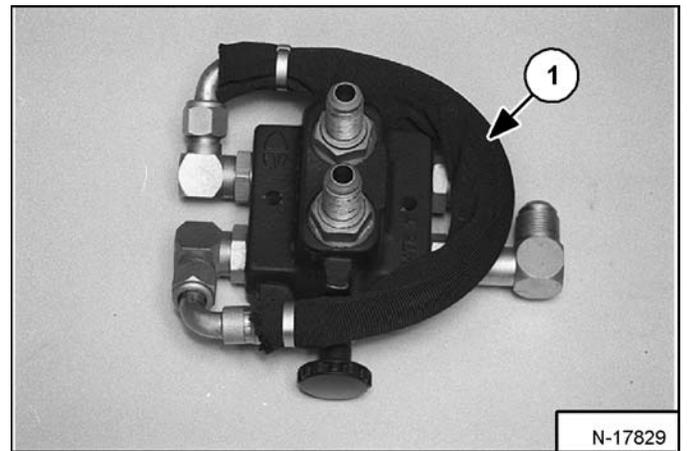
Remove the two bulkhead fitting nuts (Item 1) [Figure 20-10-2].

**Installation:** Tighten the nuts to 60 ft.-lb. (81 N•m) torque.

Remove the valve.

**Installation:** Install the valve with the knob to the outside of the sweeper.

Figure 20-10-3



Remove the by pass hose (Item 1) [Figure 20-10-3] from the valve.

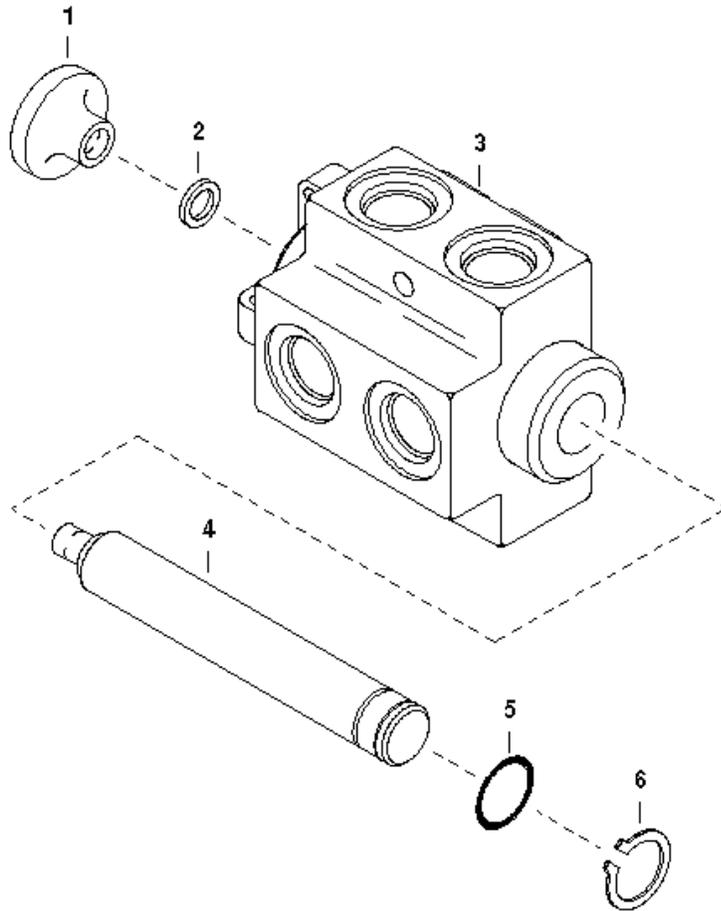
## CONTROL VALVE (CONT'D)

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### Parts Identification

1. Handle
2. Washer
3. Housing
4. Spool
5. O-Ring
6. Snap Ring



Sample of manual. Download All 90 pages at:

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