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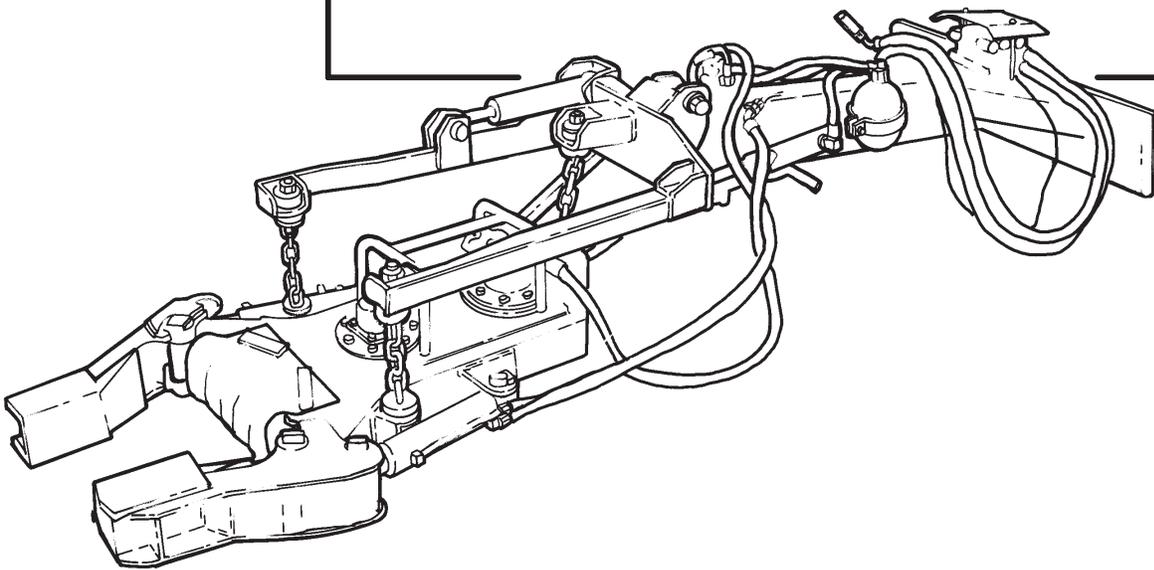
**Bobcat®**

# TREE VIBRATOR

Single  
Double

# Service Manual

**Model 30 – S/N 991600101 & Above**  
**Model 40 – S/N 991700101 & Above**



Sample of manual. Download All 108 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-2003-0903



**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**

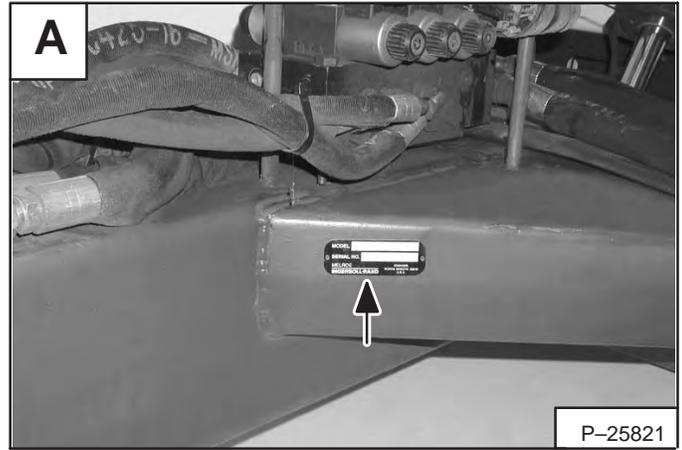
Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects and other reproductive harm.



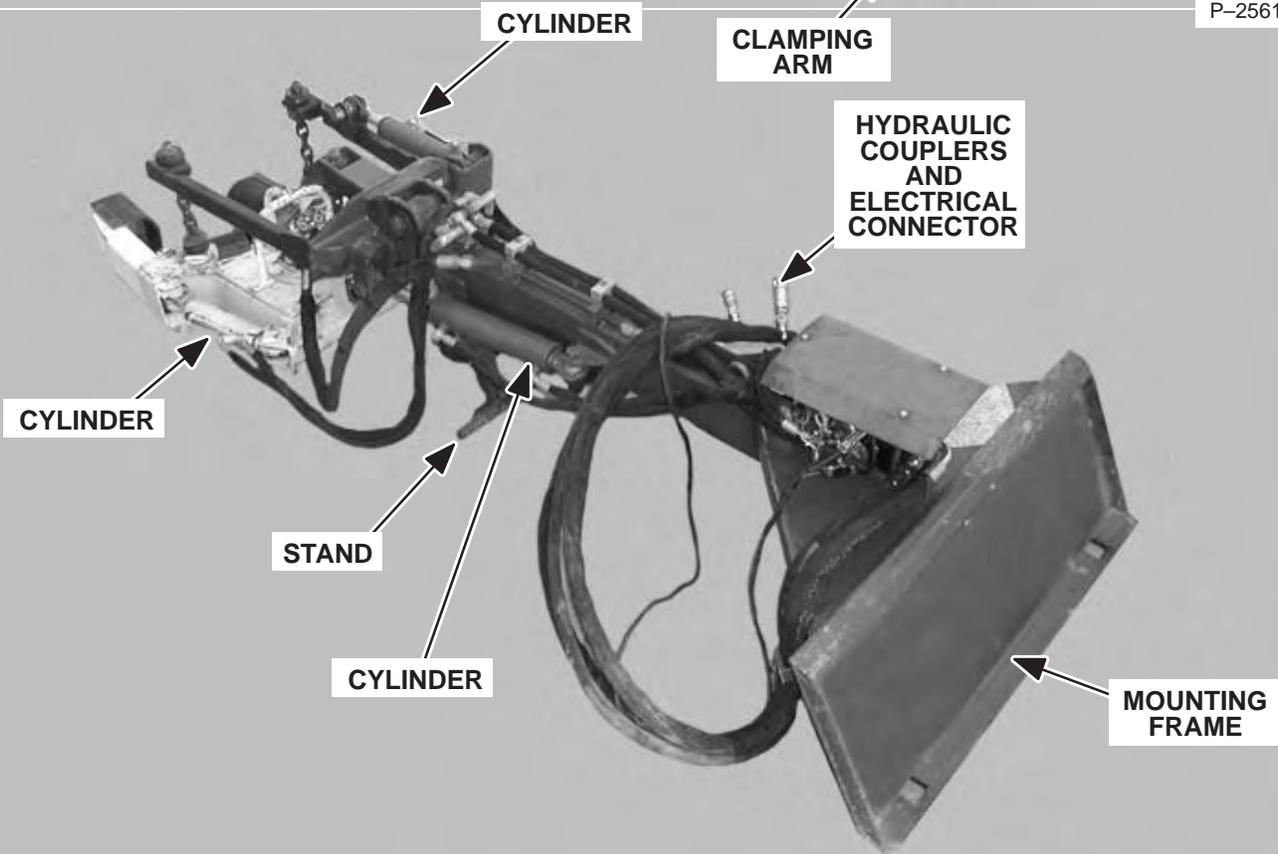
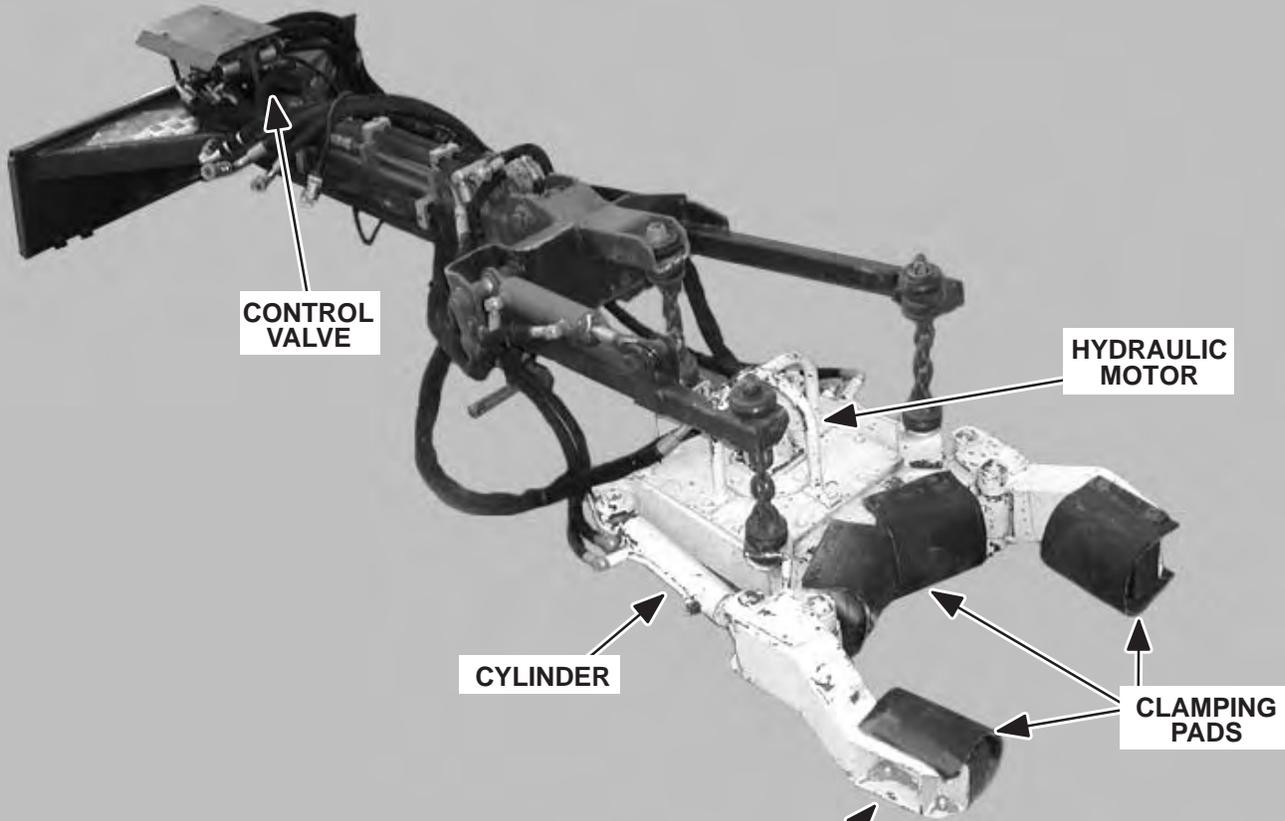
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## SERIAL NUMBER LOCATION

Always use the serial number of the Tree Vibrator 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 [A].

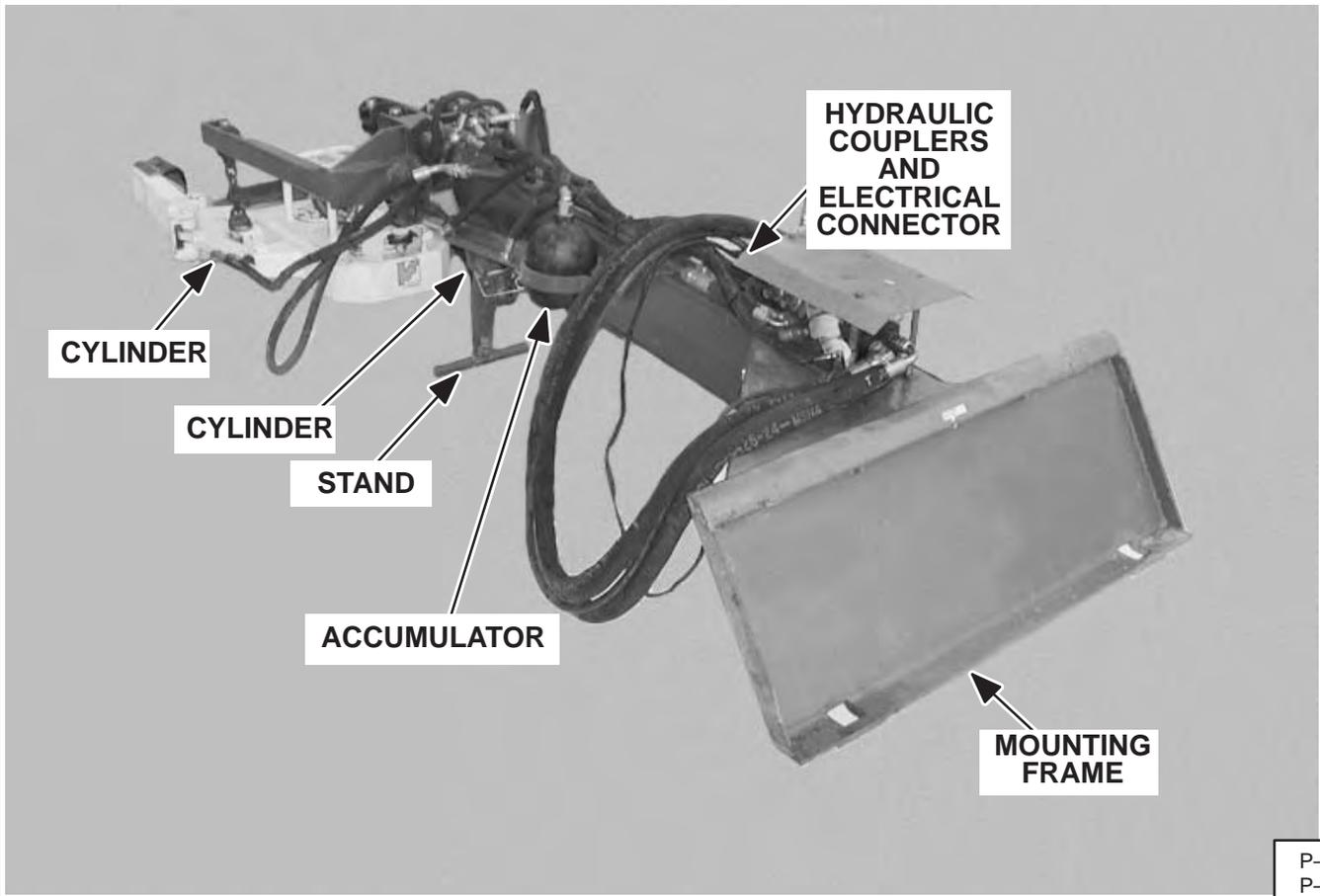
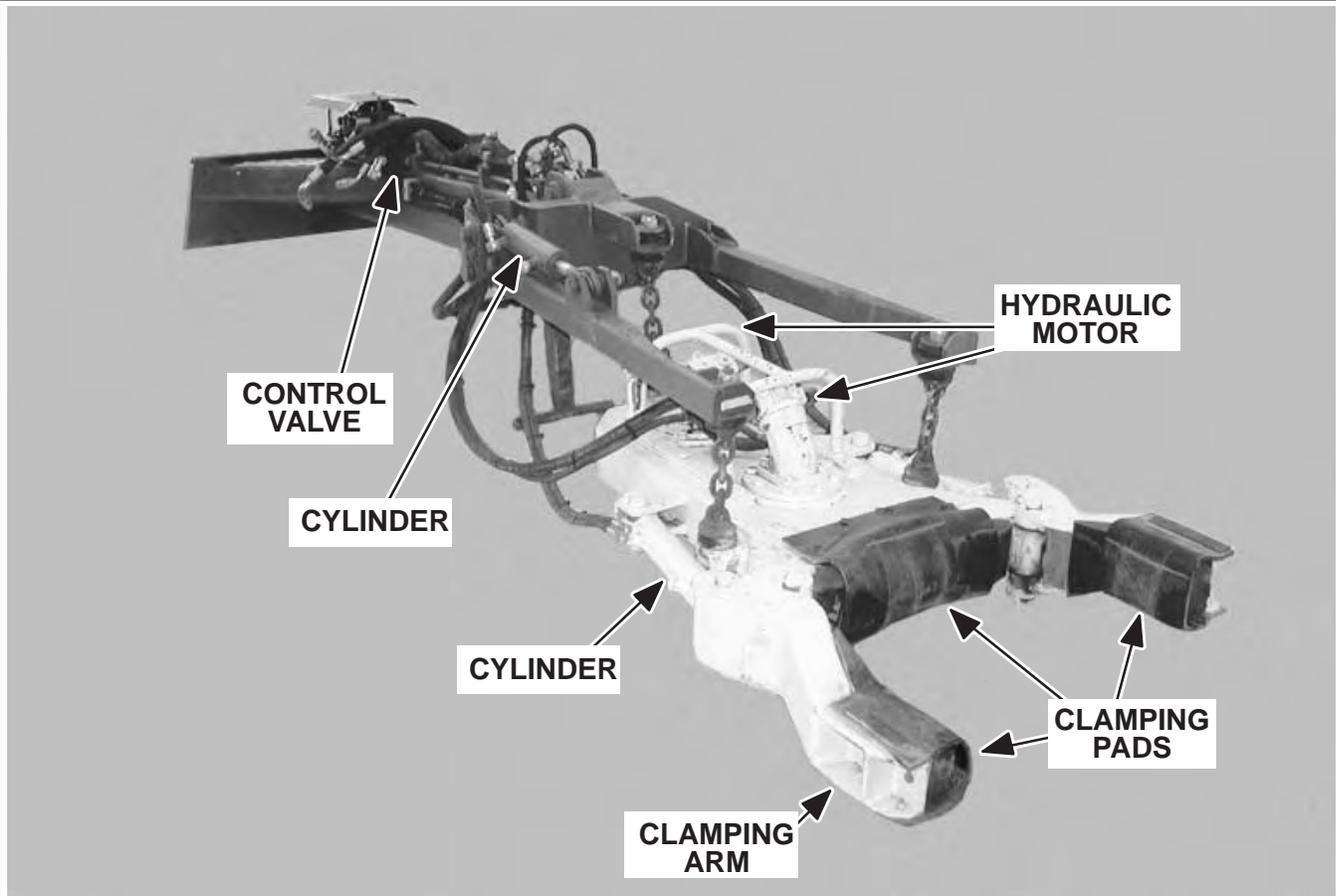


**PARTS IDENTIFICATION**  
Single



PARTS IDENTIFICATION (Cont'd)

Double



P-25837  
P-25836



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## SAFETY AND MAINTENANCE

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**SAFETY AND  
MAINTENANCE**



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**TROUBLESHOOTING**

 <b>WARNING</b>	<p>Instructions are necessary before operating or servicing machine, Read 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. Failure to follow instructions can cause injury or death.</p>
<p>W-2003-0199</p>	

If the Tree Vibrator is not working correctly, check the hydraulic system of the Bobcat Loader thoroughly before making any repairs on the Tree Vibrator. Tree Vibrator problems can be affected by a hydraulic system that is not operating to specifications.

If the Bobcat Loader operation is found to be correct, use the following troubleshooting chart to locate and correct problems with the Tree Vibrator.

PROBLEM	CAUSE	CORRECTION
Cannot change angle of cylinders.	Fuse is blown. Electrical overload.	Replace fuse in loader. See your Bobcat Loader Operation & Maintenance Manual for the location, size and type of fuse.
	Damage to the wires, harness or electrical connectors.	See your Bobcat dealer and the electrical schematics in the SPECIFICATION section of this manual.
	Faulty or damaged solenoid(s).	Replace solenoid(s).
	Auxiliary hydraulics switch not engaged.	Engage auxiliary hydraulics switch.
Tree Vibrator will not vibrate.	Auxiliary front hydraulics not engaged.	Engage the loader front auxiliary hydraulics.
	Continuous Operation auxiliary hydraulic switch not engaged.	Engage Continuous Operation auxiliary hydraulic switch.
Cylinders move quickly and are hard to position.	Auxiliary switch in maximum flow position.	Move switch to variable flow.

## INSPECTION

### Hand Lever Bob-Tach Inspection

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

The wedges must extend through the holes in the attachment mounting frame (Item 1) [A].



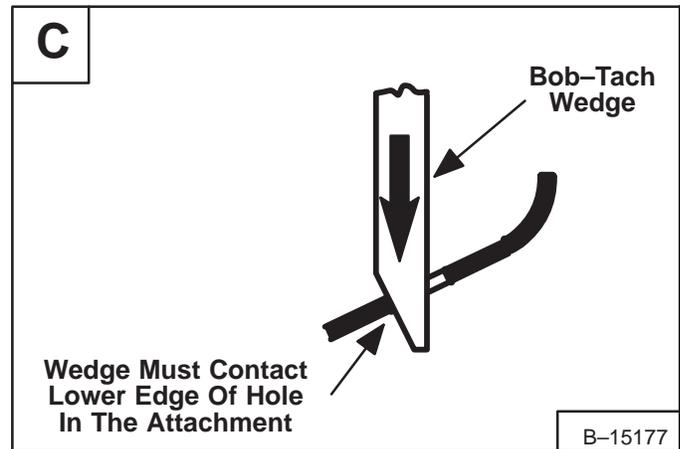
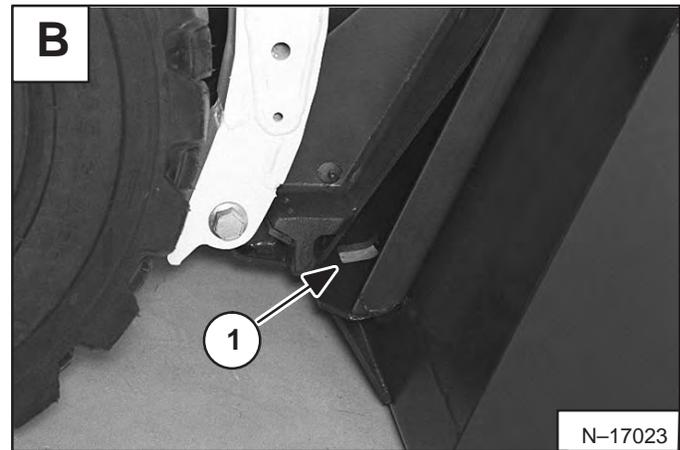
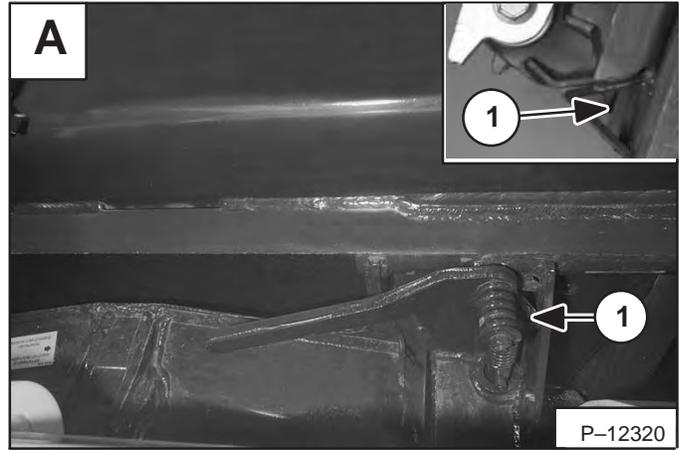
## WARNING

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.

W-2102-0497

The spring loaded wedge (Item 1) [A] must contact the lower edge of the hole in the attachment (Item 1) [B] and [C].

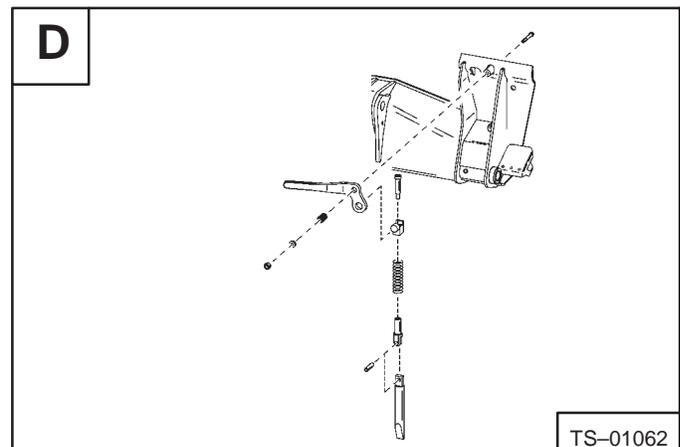
If the wedge does not contact the lower edge of the hole [B] and [C], the attachment will be loose and can come off the Bob-Tach.



Inspect the mounting frame on the attachment and the Bob-Tach, linkages and wedges for excessive wear or damage [D]. 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 And Maintenance Manual for *LUBRICATION OF THE LOADER*).



## INSPECTION(Cont'd)

### Power Bob-Tach Inspection

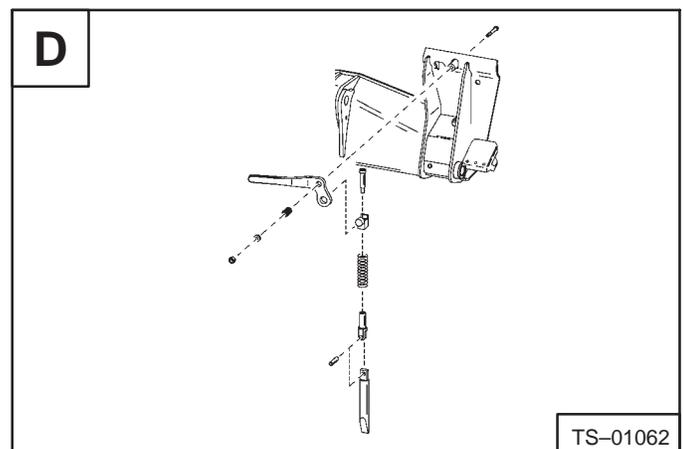
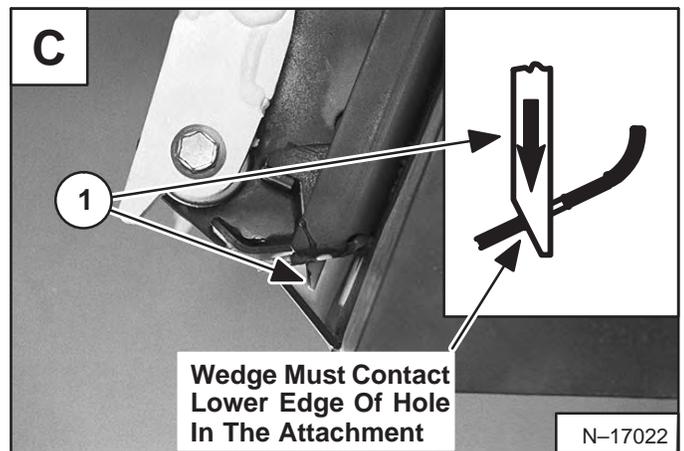
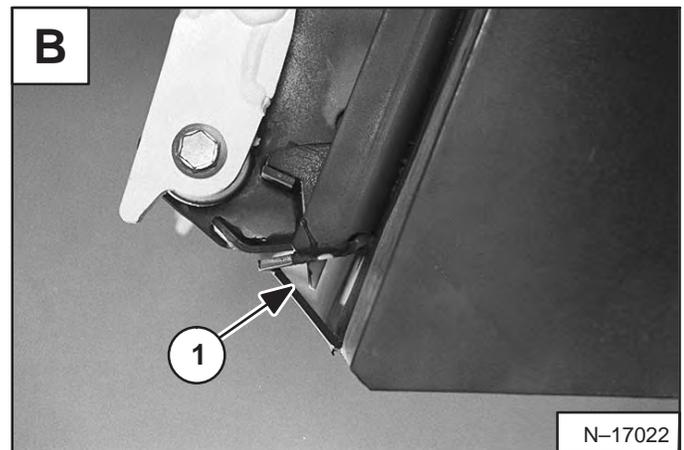
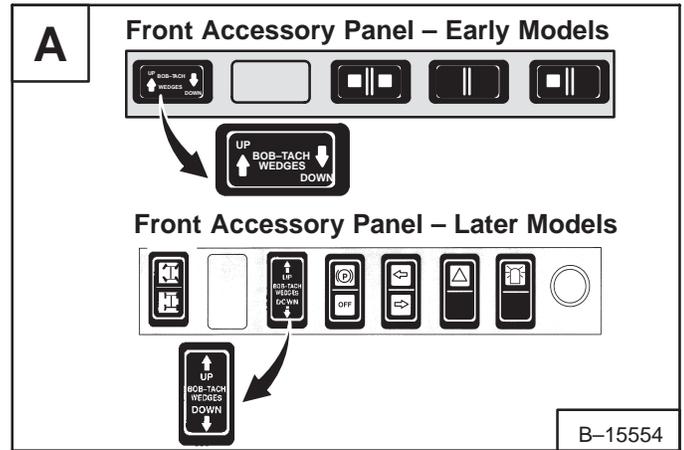
Push and hold the Bob-Tach “WEDGES UP” switch [A] until wedges are fully raised. Push and hold the Bob-Tach “WEDGES DOWN” switch [A] until the wedges are fully down. The wedges must move freely.

The wedges must extend through the holes in the attachment mounting frame (Item 1) [B] and must contact the lower edge of the hole in the attachment [B] and (Item 1) [C].

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

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

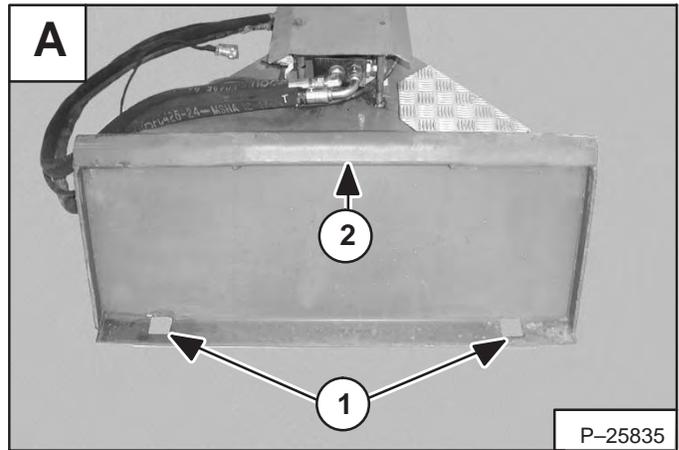
Look for cracked welds. Contact your Bobcat dealer for repair or replacement parts.



## INSPECTION (Cont'd)

### Tree Vibrator Mount Inspection

Inspect the Bob-Tach wedge mounts (Item 1) [A], mounting flange (Item 2) [A], and all welds on the Tree Vibrator mount for wear and damage each time the Tree Vibrator is removed from the loader.



## LUBRICATION

Always use a good quality lithium base multi-purpose grease when lubricating the Tree Vibrator. Apply the lubricant until extra grease shows.

# IMPORTANT

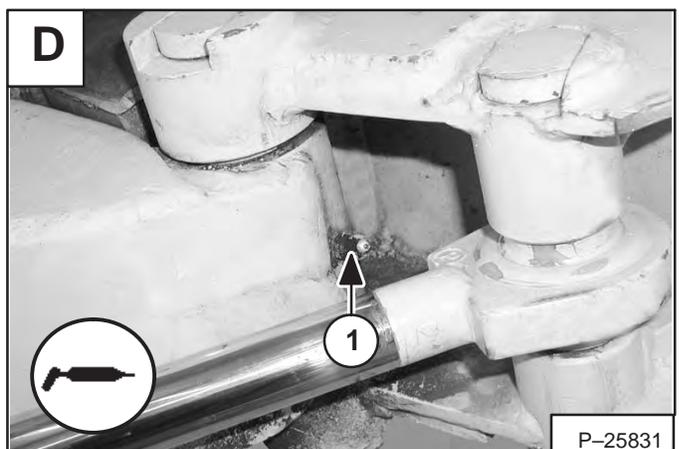
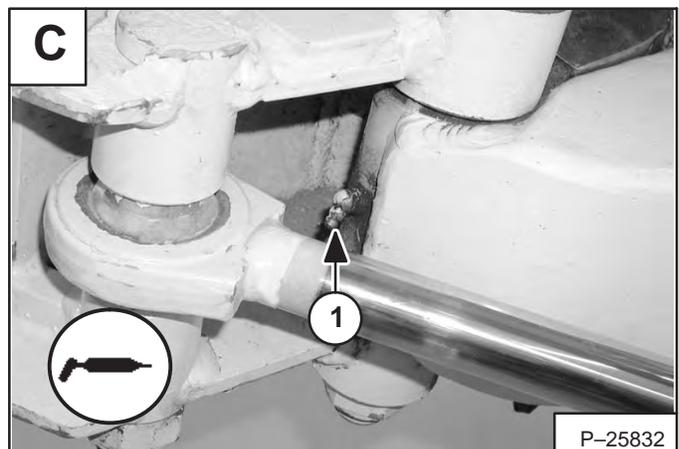
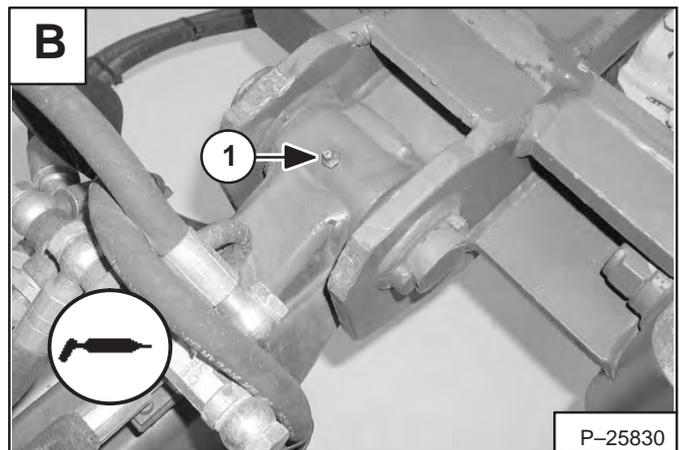
Fluid such as engine oil, hydraulic fluid, coolants, grease, etc. must be disposed of in an environmentally safe manner. Some regulations require that certain spills and leaks on the ground must be cleaned in a specific manner. See local, state and federal regulations for the correct disposal.

I-2067-0499

### Lubrication Points

Lubricate the following grease fittings **EVERY 20 HOURS**:

1. Vibrating Head Frame Pivot [B].
2. Left Clamping Arm Pivot [C].
3. Right Clamping Arm Pivot [D].



# HYDRAULIC SYSTEM

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## HYDRAULIC SYSTEM



**Bobcat**®

# HYDRAULIC CONTROL VALVE (SINGLE AND DOUBLE)

## Removal And Installation

Remove the cover.

Mark the wires for correct installation.

Disconnect the seven wire connectors (Item 1) [A].

### **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 possibly death if proper medical treatment by a physician familiar with this injury is not received immediately.

W-2145-0290

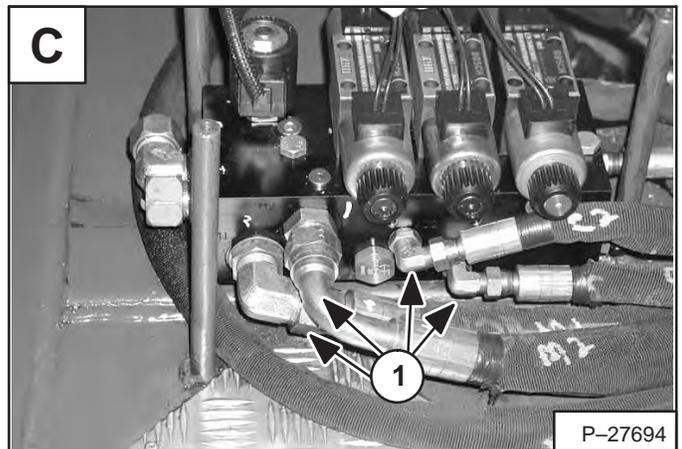
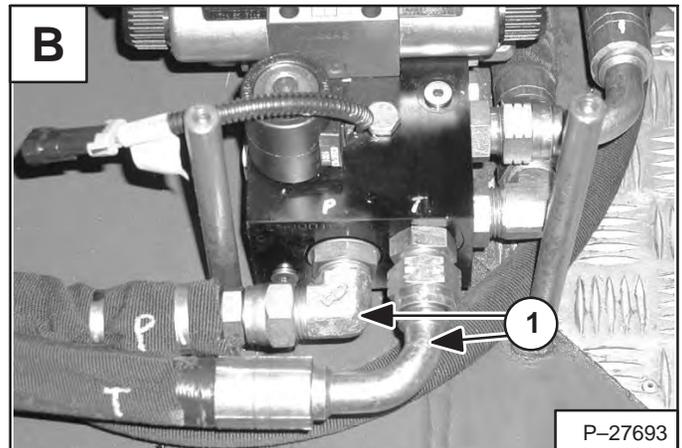
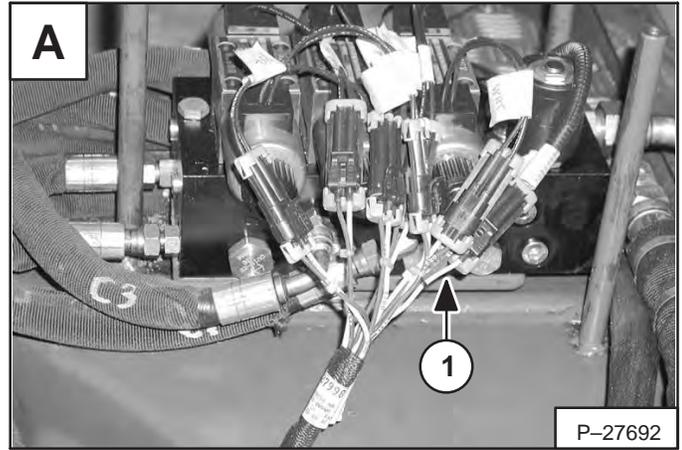
### **IMPORTANT**

When making repairs on hydraulic system, clean the work area before disassemble 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-2056-0793

Remove the hoses (Item 1) [B].

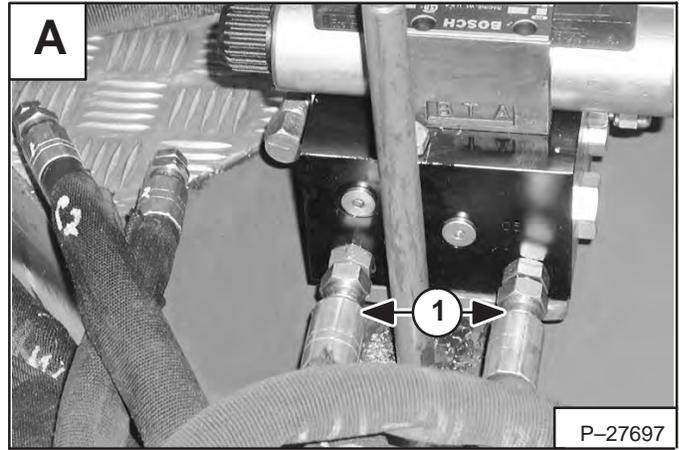
Remove the hoses (Item 1) [C].



## HYDRAULIC CONTROL VALVE (SINGLE AND DOUBLE) (Cont'd)

### Removal And Installation (Cont'd)

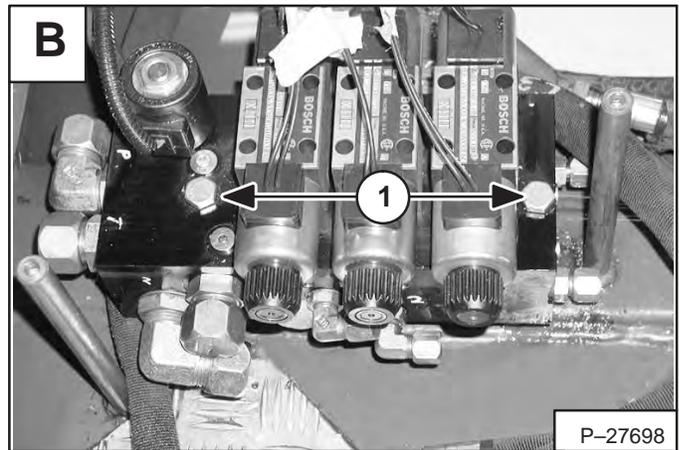
Remove the hoses (Item 1) [A].



Remove the two bolts (Item 1) [B] and lock nuts.

**Installation:** Tighten the bolts to 32–35 ft.-lbs. (43–47 Nm) torque.

Remove the control valve.



**HYDRAULIC CONTROL VALVE (SINGLE AND DOUBLE) (Cont'd)**  
**Parts Identification**

**ILLUSTRATION NOT AVAILABLE AT TIME OF PRINTING**

P-25619  
P-25620

# HYDRAULIC CONTROL VALVE (SINGLE AND DOUBLE) (Cont'd)

## Disassembly

### IMPORTANT

When making repairs on hydraulic system, clean the work area before disassemble 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-2056-0793

Mark the components for correct assembly.

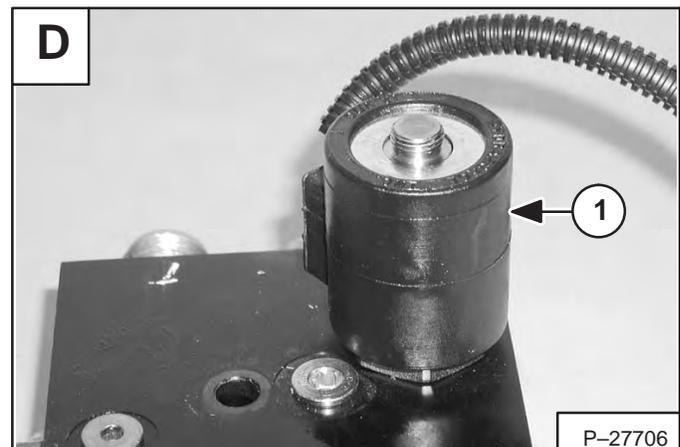
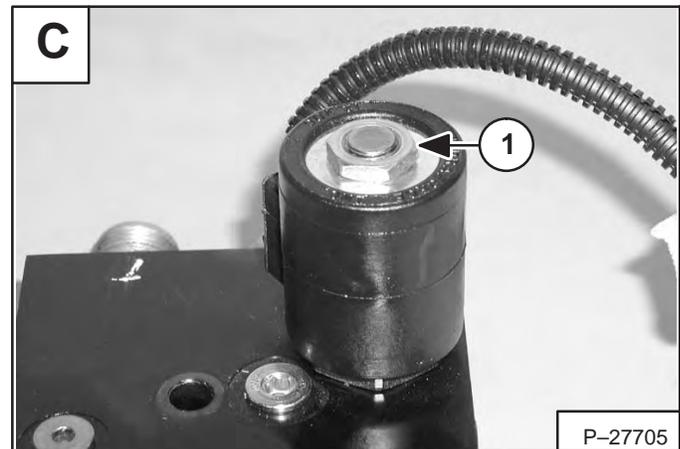
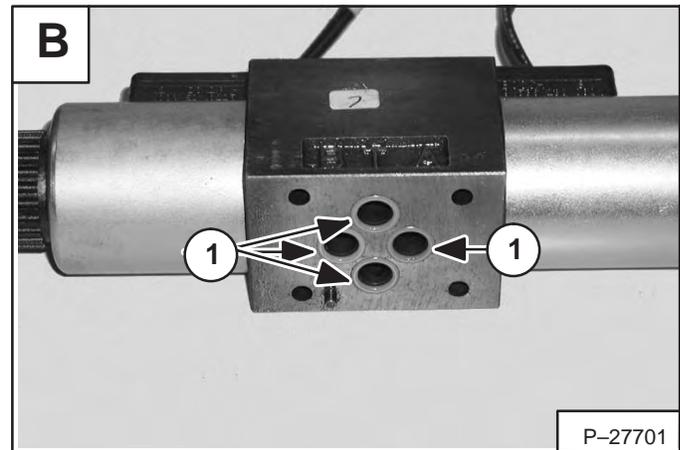
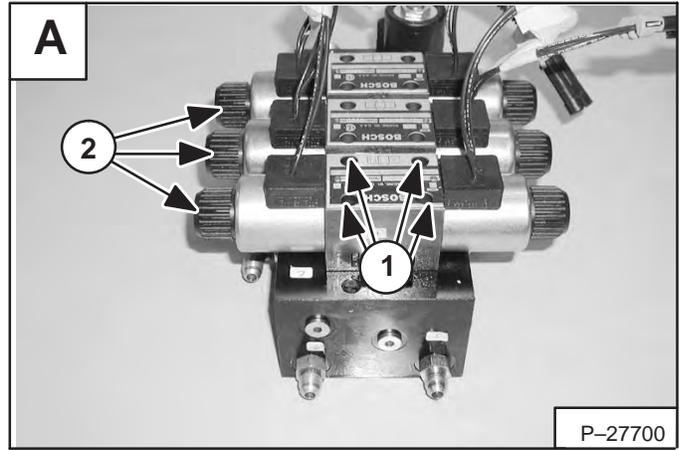
Remove the four bolts (Item 1) [A] from each of the three solenoids (Item 2) [A].

Remove the solenoids.

Remove the four O-rings (Item 1) [B] from the solenoids.

Remove the nut (Item 1) [C] from the solenoid.

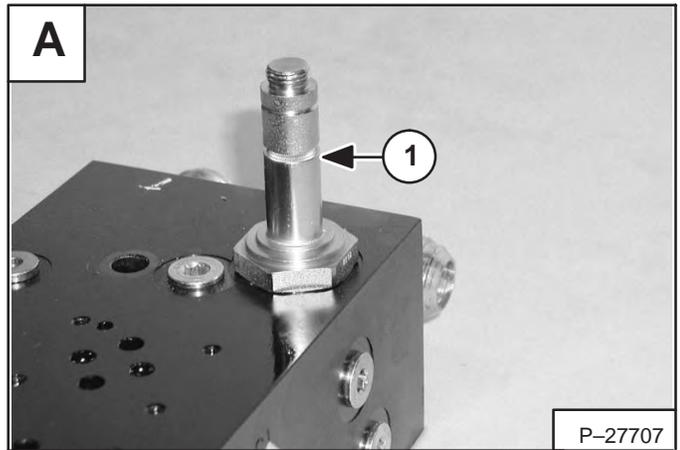
Remove the solenoid (Item 1) [D].



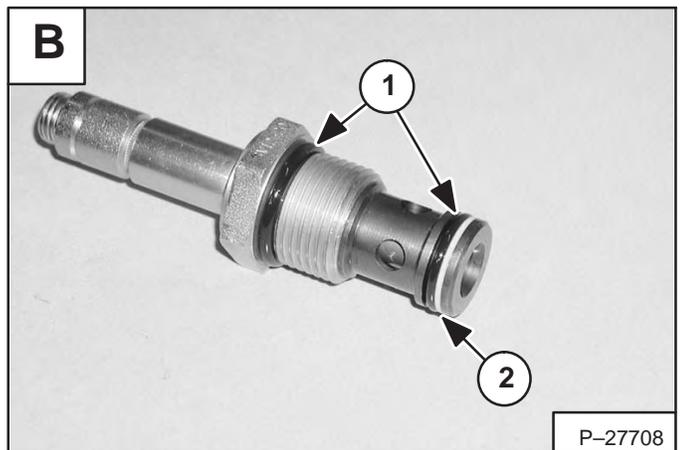
# HYDRAULIC CONTROL VALVE (SINGLE AND DOUBLE) (Cont'd)

## Disassembly (Cont'd)

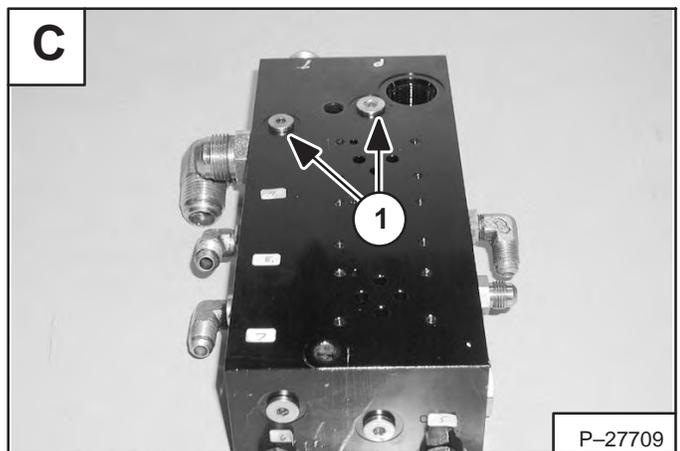
Remove the spool (Item 1) [A].



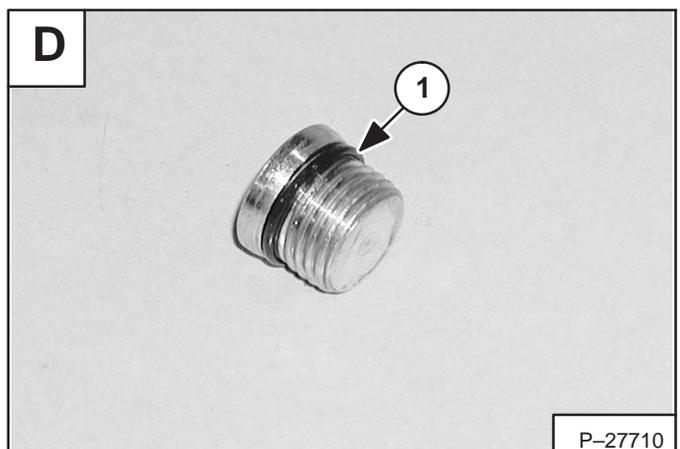
Remove the O-rings (Item 1) [B] and backup ring (Item 2) [B] from the spool.



Remove the two plugs (Item 1) [C].



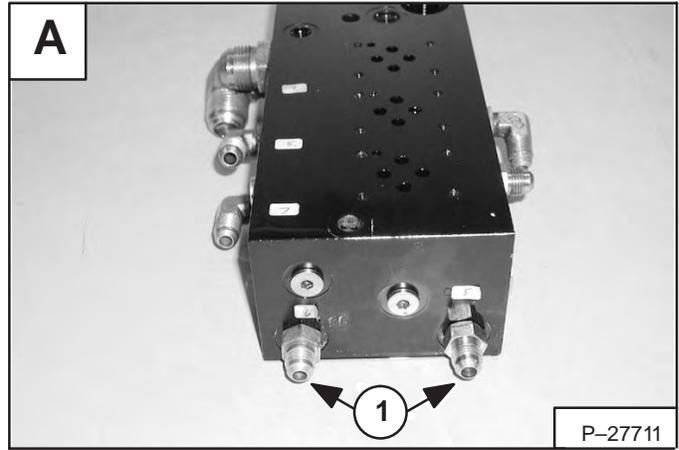
Remove the O-ring (Item 1) [D] from the plugs.



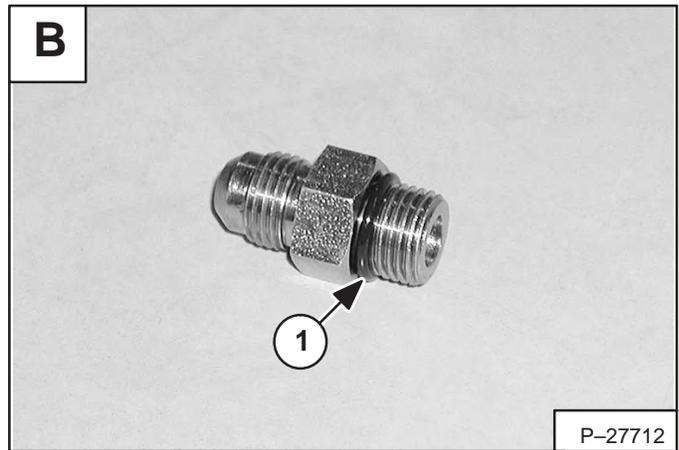
**HYDRAULIC CONTROL VALVE (SINGLE AND DOUBLE) (Cont'd)**

**Disassembly (Cont'd)**

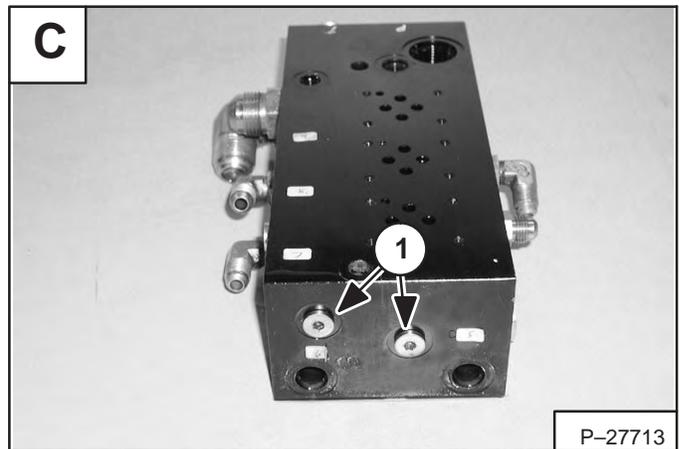
Remove the fittings (Item 1) [A].



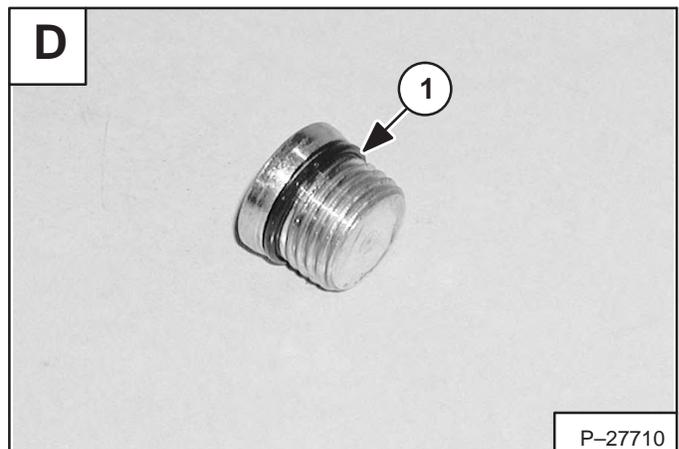
Remove the O-ring (Item 1) [B] from the fittings.



Remove the plugs (Item 1) [C].



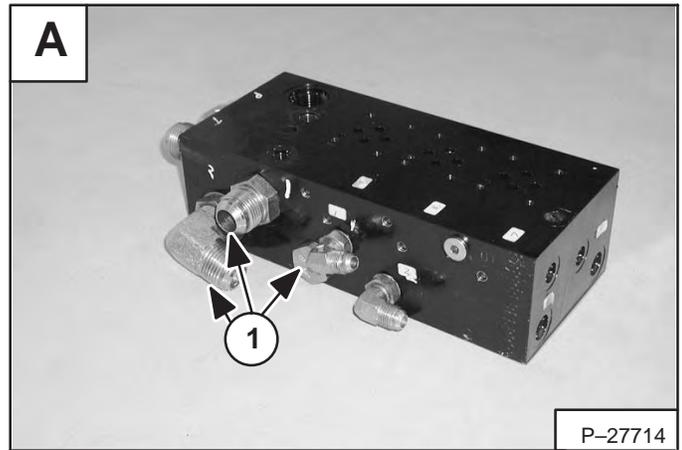
Remove the O-ring (Item 1) [D] from the plugs.



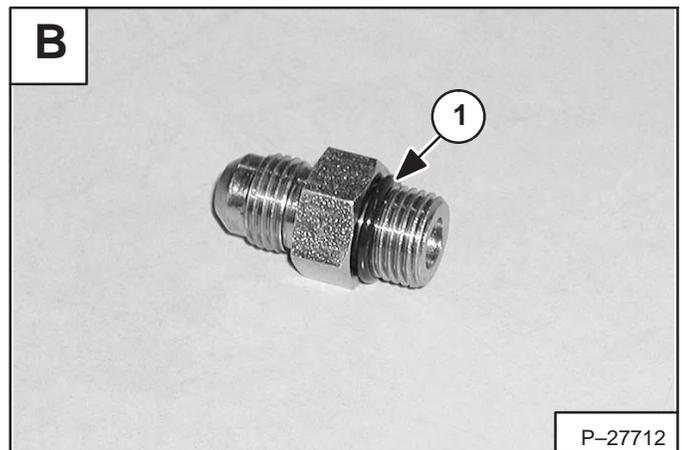
# HYDRAULIC CONTROL VALVE (SINGLE AND DOUBLE) (Cont'd)

## Disassembly (Cont'd)

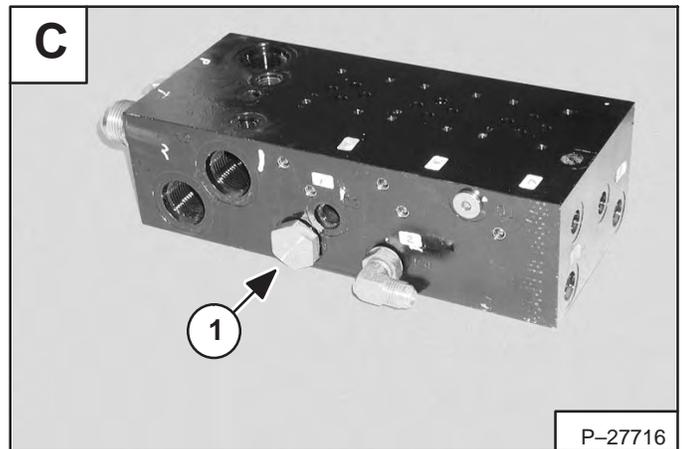
Remove the fittings (Item 1) [A].



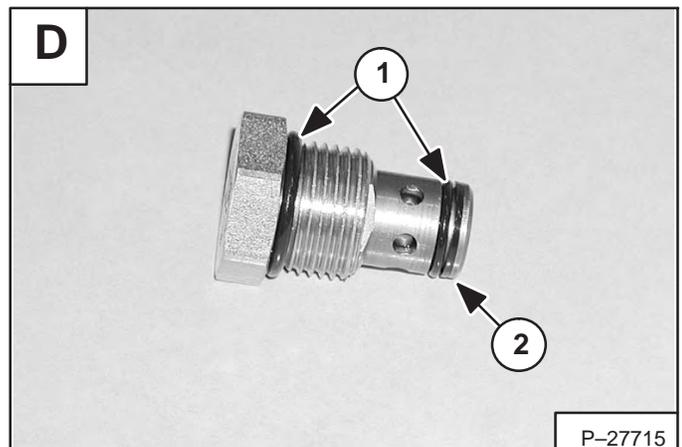
Remove the O-ring (Item 1) [B] from the fittings.



Remove the check valve (Item 1) [C].



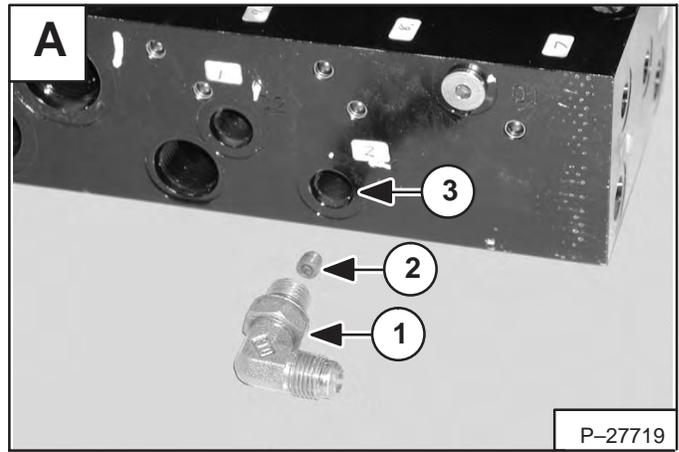
Remove the O-rings (Item 1) [D] and backup ring (Item 2) [D] from the check valve.



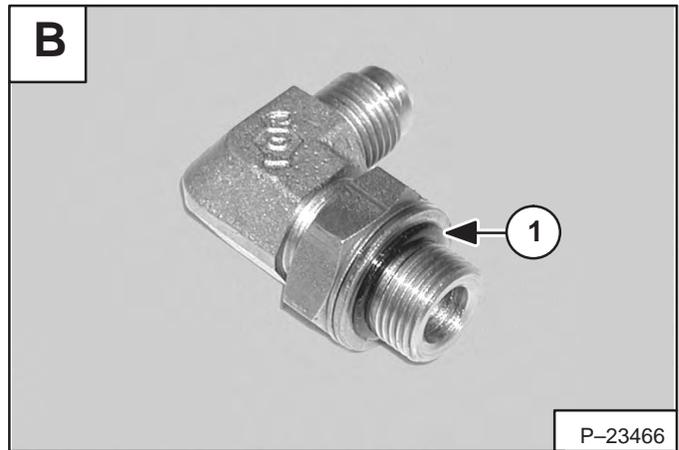
## HYDRAULIC CONTROL VALVE (SINGLE AND DOUBLE) (Cont'd)

### Disassembly (Cont'd)

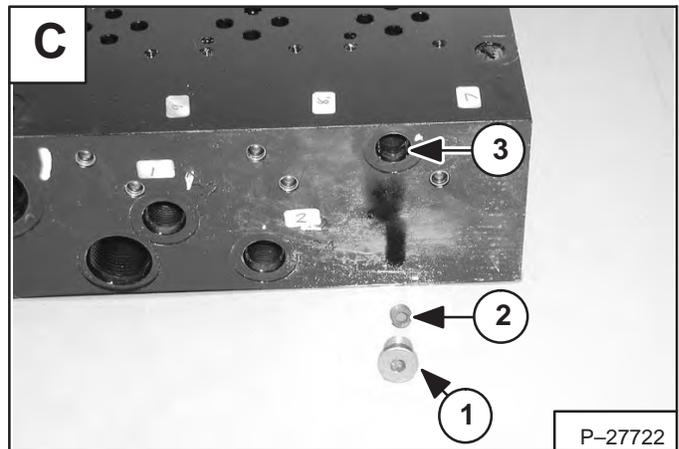
Remove the fitting (Item 1) [A] and orifice (Item 2) [A] from the port (Item 3) [A].



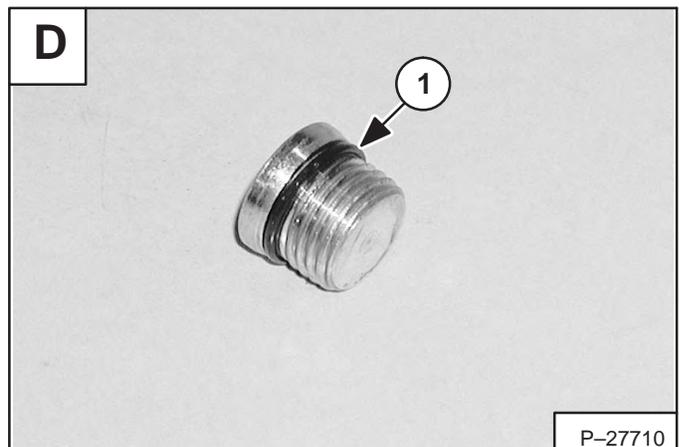
Remove the O-ring (Item 1) [B] from the fitting.



Remove the plug (Item 1) [C] and orifice (Item 2) [C] from the port (Item 3) [C].



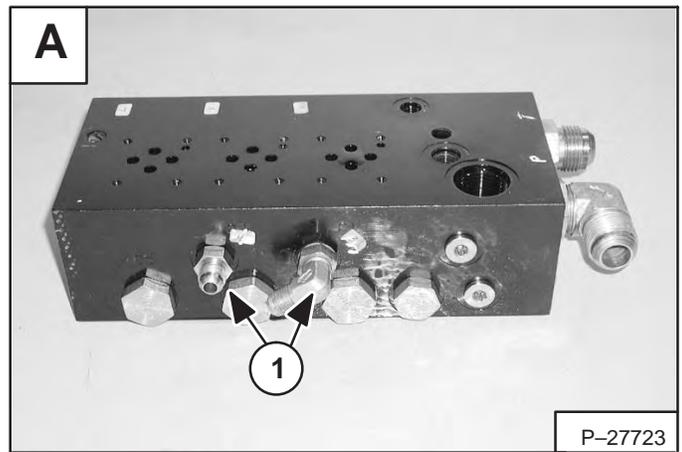
Remove the O-ring (Item 1) [D] from the plug.



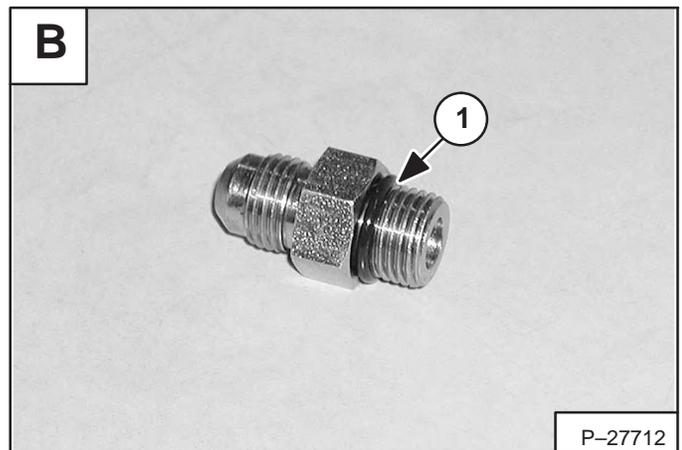
# HYDRAULIC CONTROL VALVE (SINGLE AND DOUBLE) (Cont'd)

## Disassembly (Cont'd)

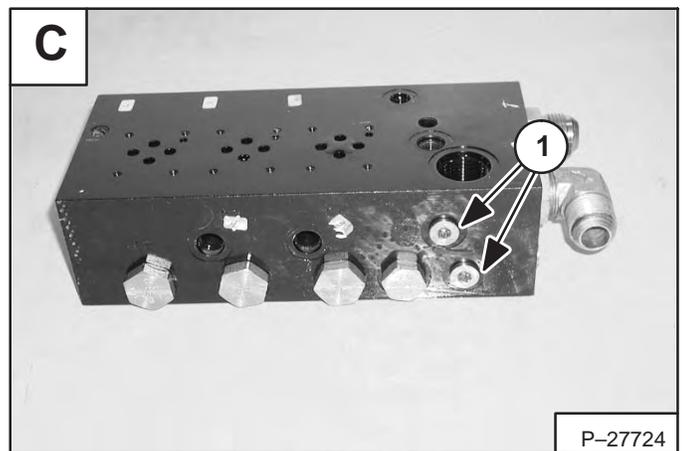
Remove the fittings (Item 1) [A].



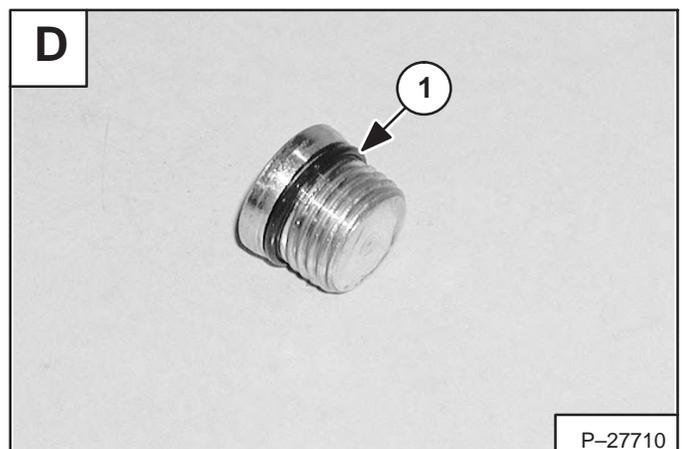
Remove the O-ring (Item 1) [B] from the fittings.



Remove the plugs (Item 1) [C].



Remove the O-ring (Item 1) [D] from the plugs.

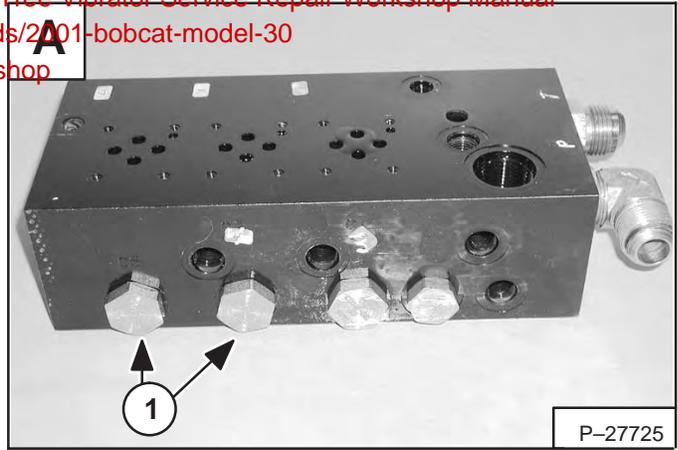


Product: 2001 Bobcat Model 30, Model 40 Single Double Tree Vibrator Service Repair Workshop Manual  
Full Download: <https://www.aresairmanual.com/downloads/2001-bobcat-model-30-model-40-single-double-tree-vibrator-service-repair-workshop-manual/>

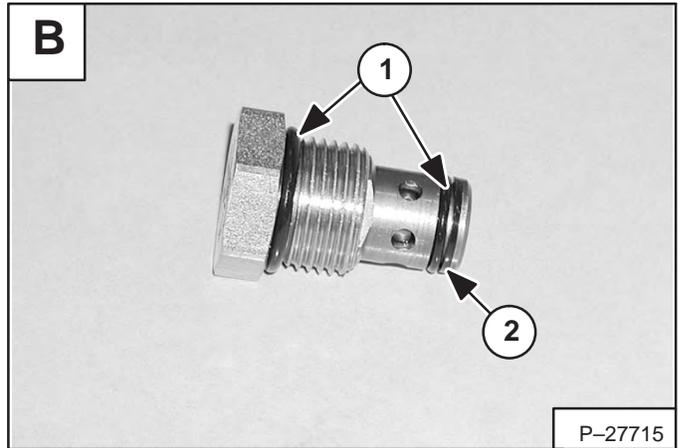
# HYDRAULIC CONTROL VALVE (SINGLE AND DOUBLE) (Cont'd)

## Disassembly (Cont'd)

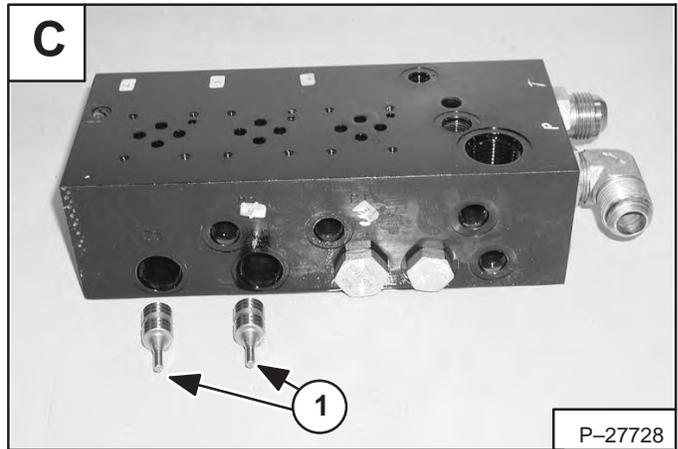
Remove the check valves (Item 1) [A] from the control valve.



Remove the O-rings (Item 1) [B] and backup ring (Item 2) from the check valves.



Remove the spools (Item 1) [C].



Remove the check valve (Item 1) [D].

