

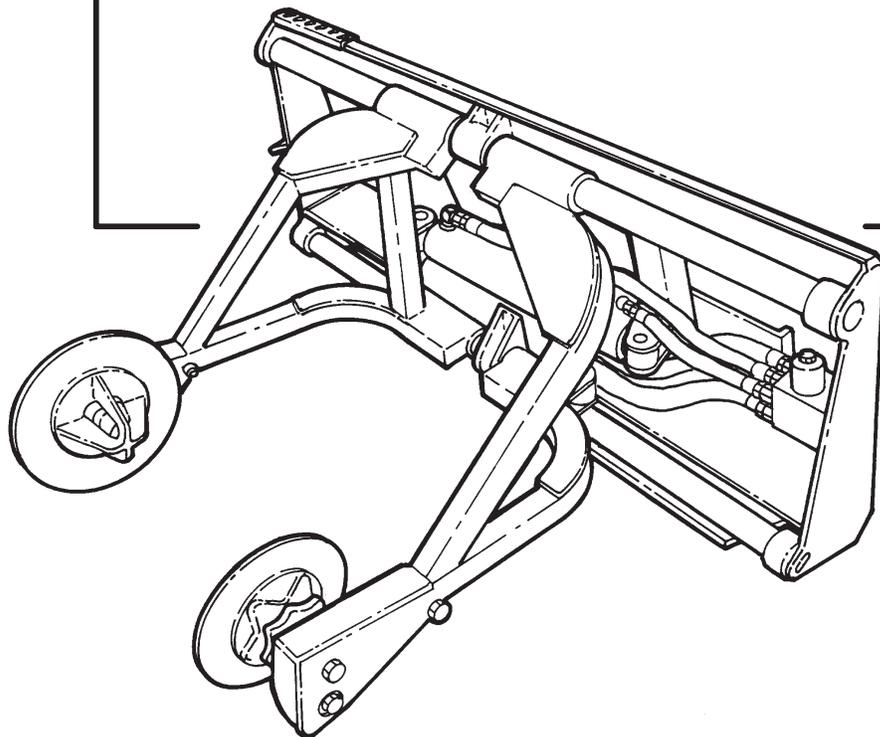


Bobcat®

**SOD
LAYER**

Service Manual

**S/N 749900101 & Above
S/N 231811101 & Above
S/N 679100101 & Above**



Product: 2002 Bobcat Sod Layer Service Repair Workshop Manual
Full Download: <https://www.arepairmanual.com/downloads/2002-bobcat-sod-layer-service-repair-workshop-manual/>

Sample of manual. Download All 76 pages at:
<https://www.arepairmanual.com/downloads/2002-bobcat-sod-layer-service-repair-workshop-manual/>

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.



-  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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ALPHABETICAL INDEX

ARM BARS	10-30-1
CUTTER BLADE	10-10-1
ELECTRICAL SCHEMATIC	10-40-1
GLOSSARY OF HYDRAULIC SYMBOLS FOR ATTACHMENTS	10-40-1
HYDRAULIC CONTROL VALVE	10-20-1
HYDRAULIC CYLINDER	10-20-1
HUB	10-30-1
HYDRAULIC SCHEMATIC	10-40-1
IDENTIFICATION	iv
INSPECTION	10-10-1
LUBRICATION	10-10-1
RELIEF VALVE	10-20-1
SERIAL NUMBER LOCATION	iii
SPECIFICATIONS	10-40-1
TROUBLESHOOTING	10-10-1



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CONTENTS

SERIAL NUMBER LOCATION	iii
IDENTIFICATION	iii
PREVENTIVE MAINTENANCE	10-10-1
HYDRAULIC SYSTEM	10-20-1
MAIN FRAME	10-30-1
SPECIFICATIONS AND SCHEMATICS	10-40-1

**PREVENTIVE
MAINTENANCE**

**HYDRAULIC
SYSTEM**

MAIN FRAME

**SPECIFICATIONS
AND
SCHEMATICS**

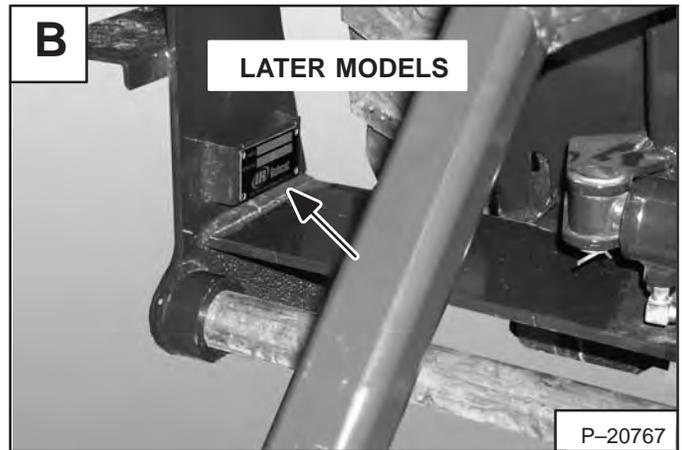
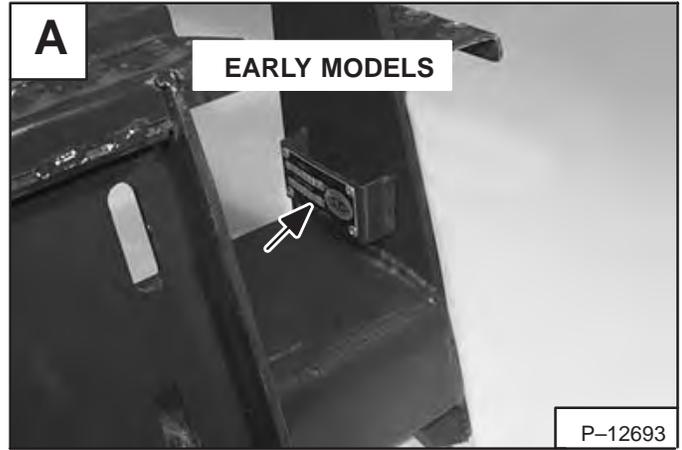
**CALIFORNIA
PROPOSITION 65 WARNING**
Diesel engine exhaust and some of its
constituents are known to the State of California
to cause cancer, birth defects and other
reproductive harm.



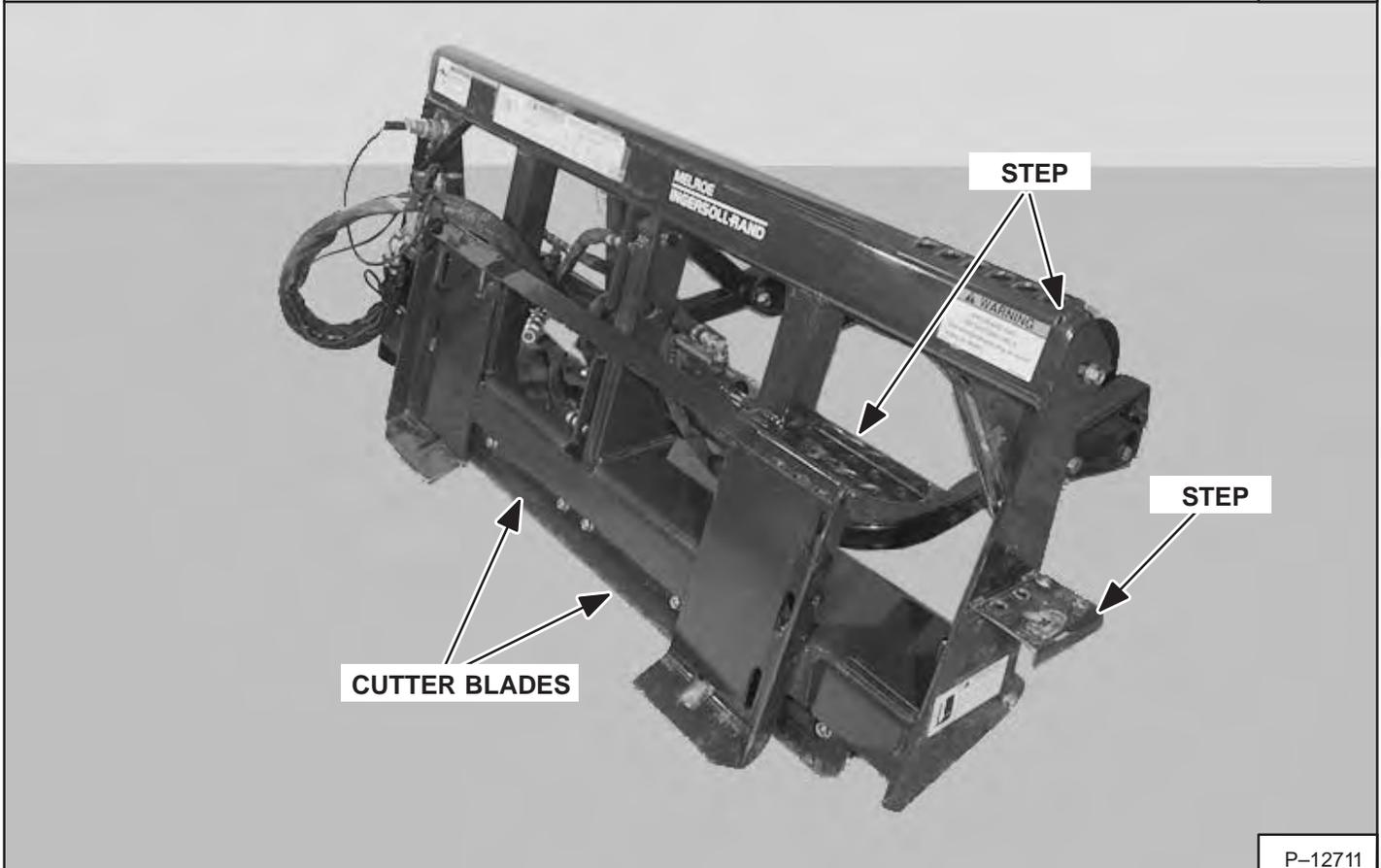
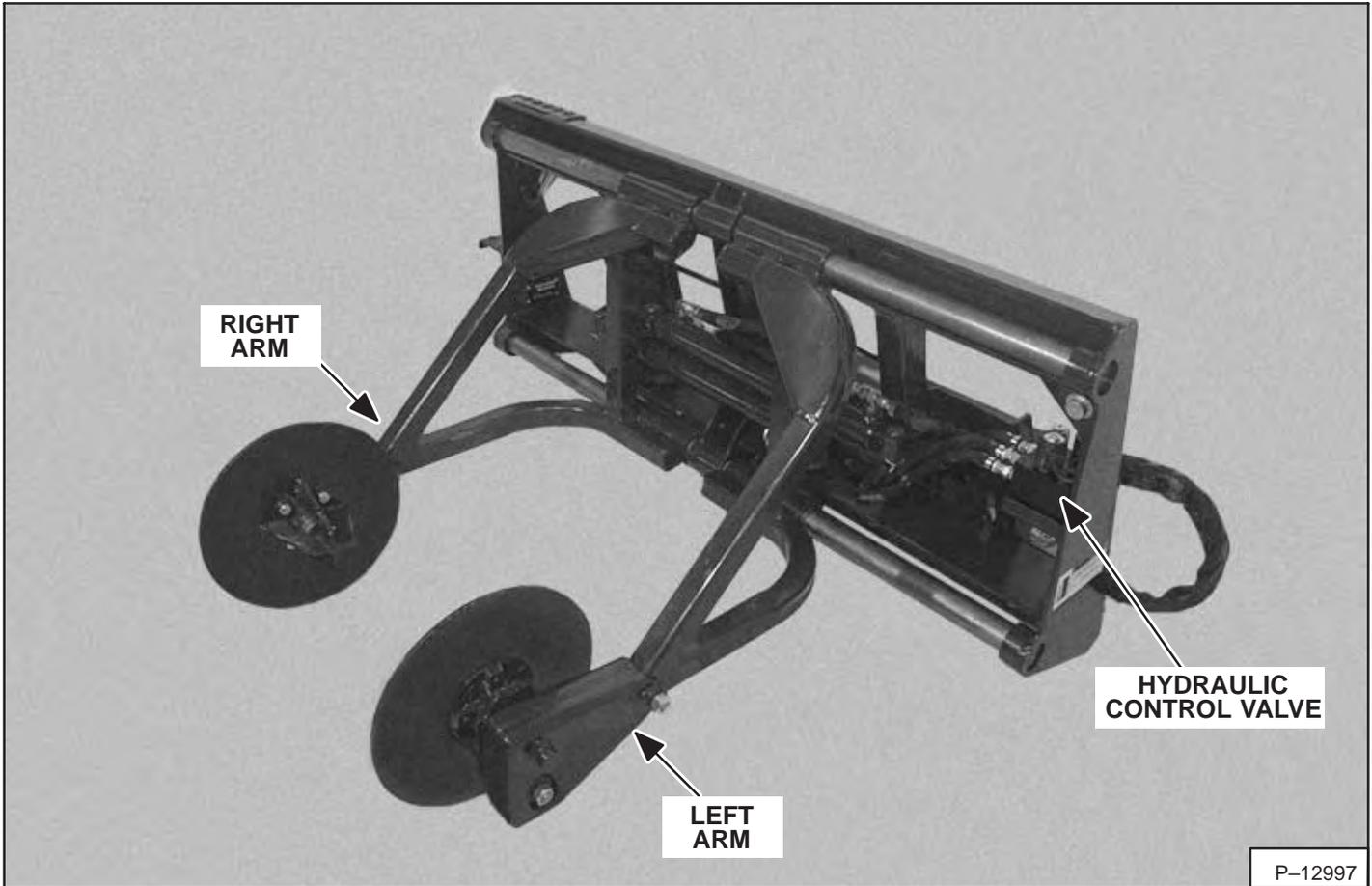
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SERIAL NUMBER LOCATION

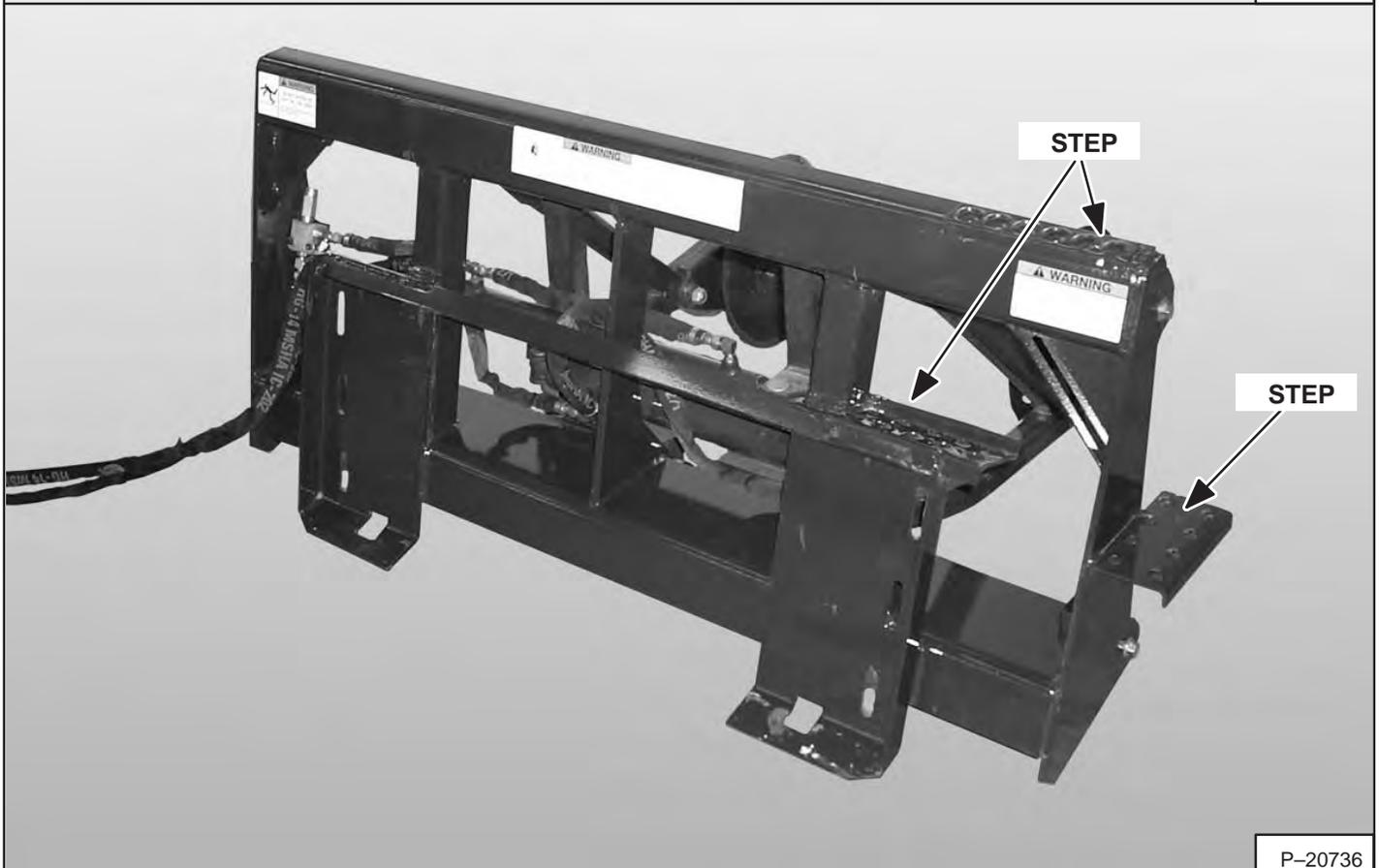
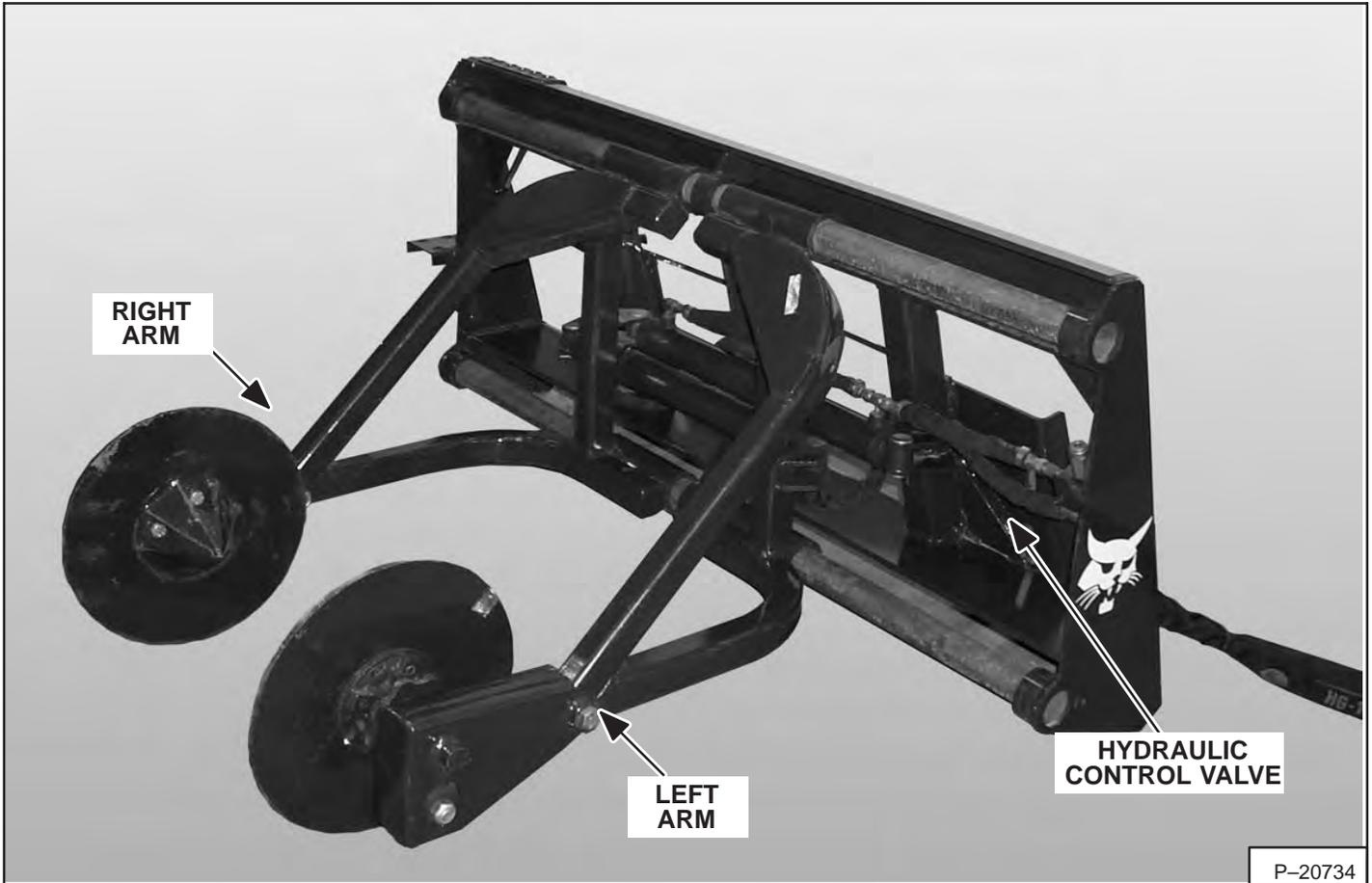
Always use the serial number of the Sod Layer when requesting service information or when ordering parts. Early or later models (identification made by serial number) may use different parts, or it may be necessary to use a different procedure in doing a specific service operation **[A]** & **[B]**.



IDENTIFICATION (S/N 231811101 & Above and
749900101 & Above)



IDENTIFICATION (S/N 679100101 & Above)





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PREVENTIVE MAINTENANCE

	Page Number
INSPECTION	
Hand Lever Bob-Tach Inspection	10-10-5
Power Bob-Tach Inspection	10-10-6
Sod Layer Mount Inspection	10-10-4
LUBRICATION	10-10-4
TROUBLESHOOTING	10-10-3



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TROUBLESHOOTING



Instructions are necessary before operating or servicing machine. Read and understand the Operation & 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.

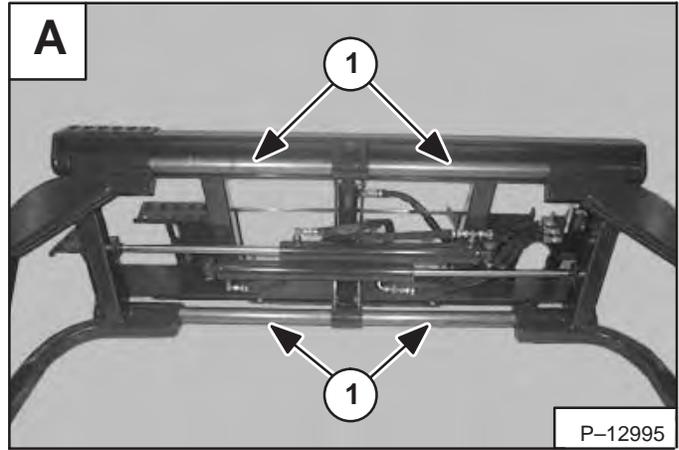
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PROBLEM	CAUSE	CORRECTION
Sod Layer does not mount properly on the Bob-Tach.	Bob-Tach wedges are not fully retracted.	Retract Bob-Tach wedges.
	Mud, dirt or stones are lodged between the Bob-Tach and the Sod Layer.	Remove debris from between Bob-Tach and Sod Layer.
Cutter blade(s) does not cut. (S/N 231811101 & Above and 749900101 & Above only)	Cutter blade(s) are dull.	Sharpen cutter blade(s).
Sod Layer arms will not sideshift, cutter blade will not extend. (S/N 231811101 & Above and 749900101 & Above only)	No hydraulic flow.	Check quick couplers connection. Check for damaged hose ends and fittings.
		Activate loader front auxiliary hydraulics.
Sod Layer arms sideshift, cutter blade will not extend. (S/N 231811101 & Above and 749900101 & Above only)	Electrical harness not installed.	Install electrical harness from the Sod Layer to the loader.
	No electrical current flow through harness.	Check Sod Layer electrical harness for damage to connector or harness.
Sod Layer arms will not sideshift. (S/N 679100101 & Above)	No hydraulic flow.	Check quick couplers connection. Check for damaged hose ends and fittings.
		Activate loader front auxiliary hydraulics.

LUBRICATION

Apply a light lubricating oil to the arm bars (Item 1) **[A]** to prevent rust from forming.

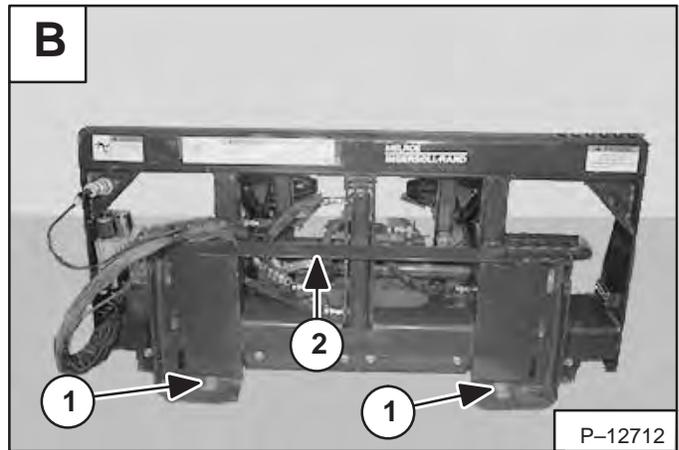
Apply a light coating of grease to the arm bars (Item 1) **[A]** when the sod layer is going to be stored.



INSPECTION

Sod Layer Mount Inspection

Inspect the Bob-Tach wedge mounts (Item 1) **[B]** mounting flange (Item 2) **[B]** and all welds on the Sod Layer mount for wear and damage each time the Sod Layer is removed from the loader.



INSPECTION (Cont'd)

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.

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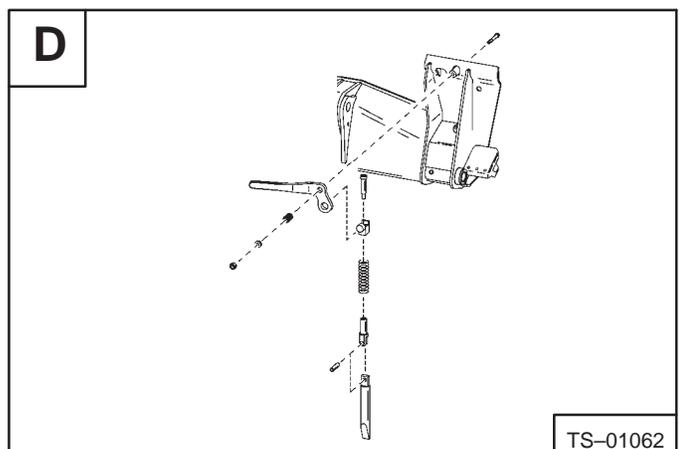
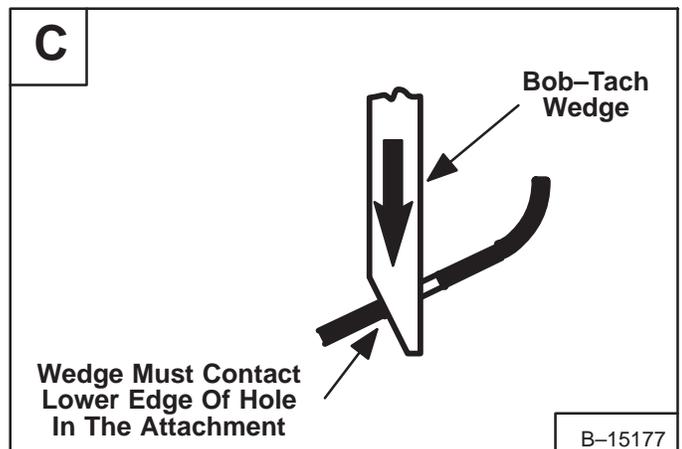
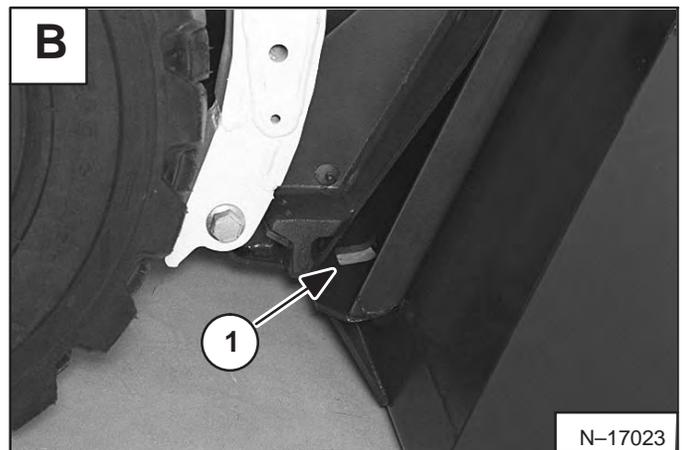
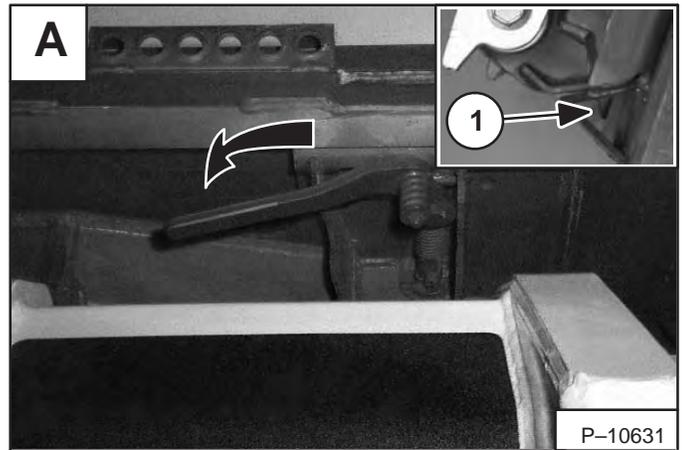
The spring loaded wedge (Item 1) [A] must contact the lower edge of the hole in the attachment (Item 1) [B] and [C].

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 Service Manual for *LUBRICATION OF THE BOBCAT 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.

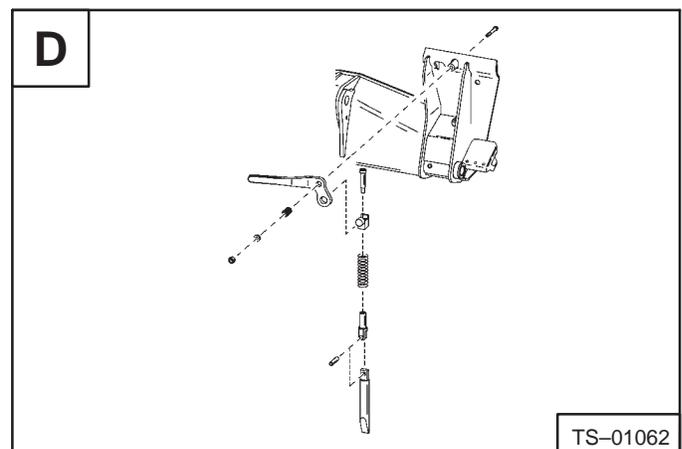
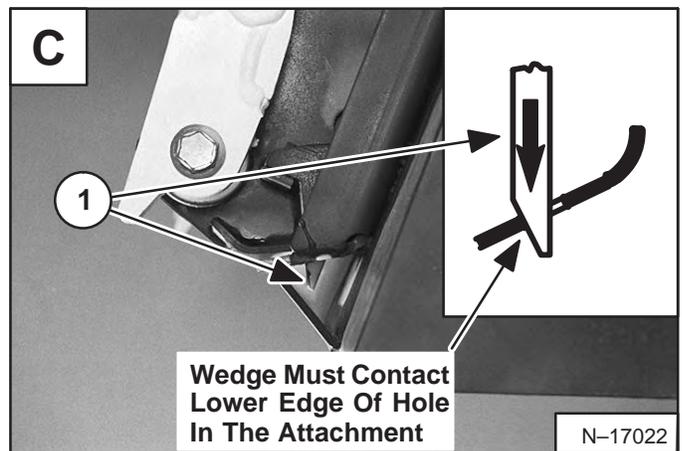
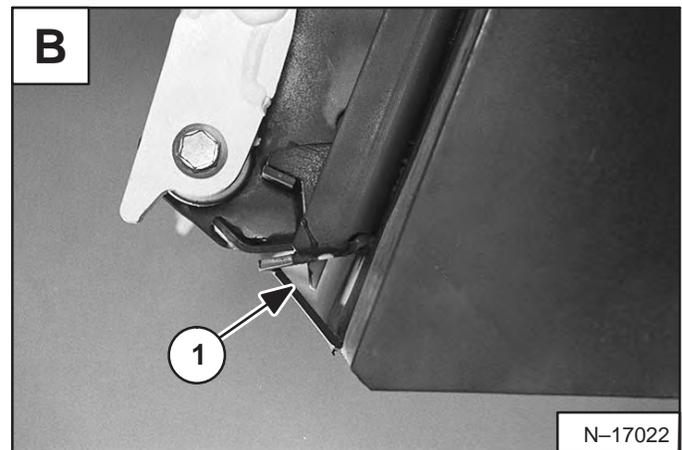
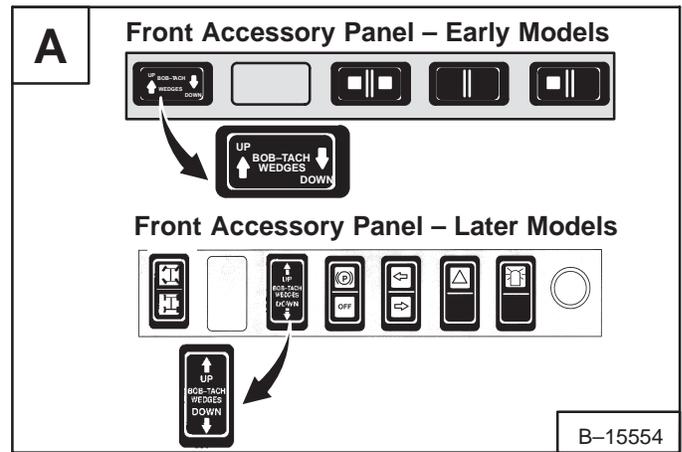
The wedges must extend through the holes in the attachment mounting frame (Item 1) [B] And must contact the lower edge of the hole in the attachment [B] and (Item 1) [C].

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 lever 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 Service Manual for *Lubrication Of The Bobcat Loader.*)



HYDRAULIC SYSTEM

	Page Number
HYDRAULIC CONTROL VALVE (S/N 231811101 & Above and 749900101 & Above)	
Assembly	10-20-21
Disassembly	10-20-19
Parts Identification	10-20-18
Removal And Installation	10-20-17
HYDRAULIC CONTROL VALVE (S/N 679100101 & Above)	
Assembly	10-20-27
Disassembly	10-20-27
Removal And Installation	10-20-26
HYDRAULIC CYLINDER	
Assembly	10-20-13
Cutter Hydraulic Cylinder Removal And Installation	10-20-6
Disassembly	10-20-10
Left Arm Hydraulic Cylinder Removal And Installation	10-20-4
Parts Identification	10-20-9
Right Arm Hydraulic Cylinder Removal And Installation	10-20-3
RELIEF VALVE (S/N 231811101 & Above and 749900101 & Above)	
Adjustment	10-20-24
Description	10-20-24
RELIEF VALVE (S/N 679100101 & Above)	
Adjustment	10-20-28
Description	10-20-28

HYDRAULIC SYSTEM



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HYDRAULIC CYLINDER

Right Arm Hydraulic Cylinder Removal And Installation

NOTE: Cylinder removal is shown on early model sod layer. Removal of cylinders on later models is the same except the photos will not reflect the later models.

Mark the hoses for ease of assembly.

Remove the hoses (Item 1) [A].

IMPORTANT

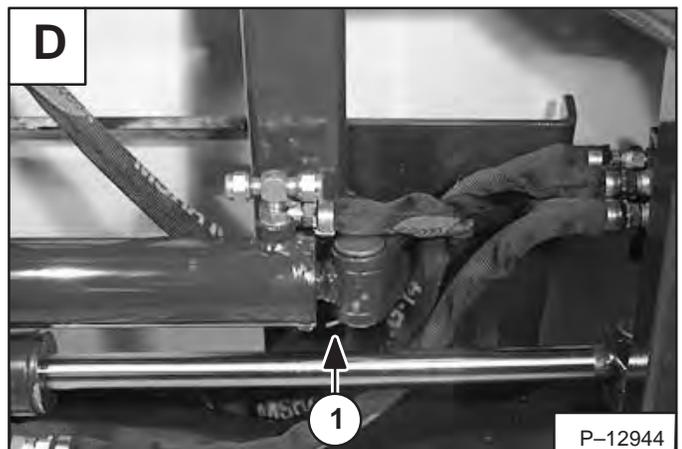
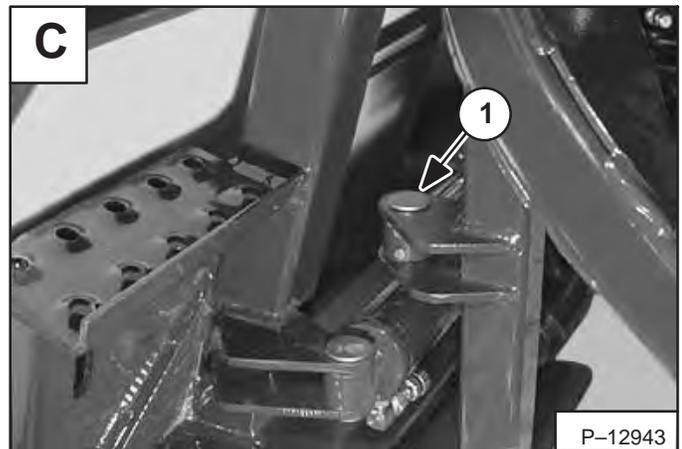
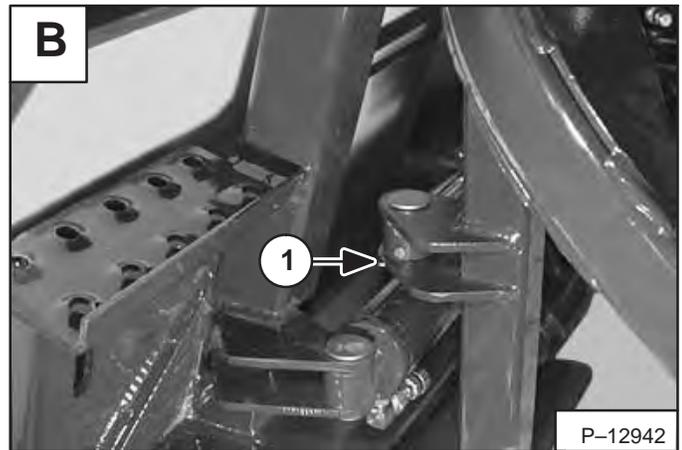
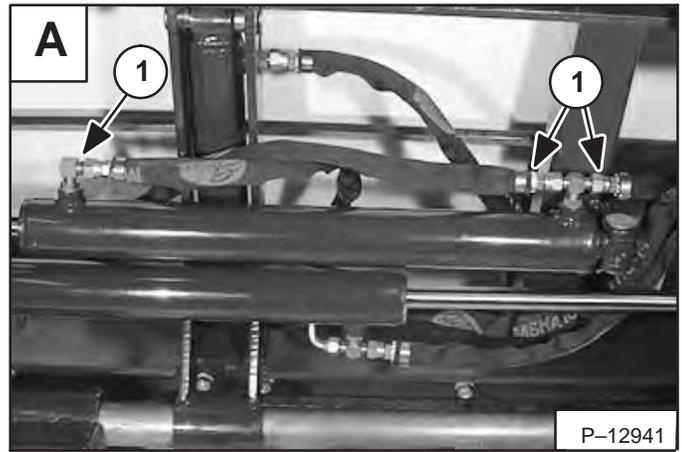
When repairing hydrostatic and hydraulic systems, clean the work area before disassembly and keep all parts clean. Always use caps and plugs on hoses, tubelines and ports to keep dirt out. Dirt can quickly damage the system.

I-2003-0888

Remove the cotter pin (Item 1) [B].

Remove the pin (Item 1) [C].

Remove the cotter pin (Item 1) [D].

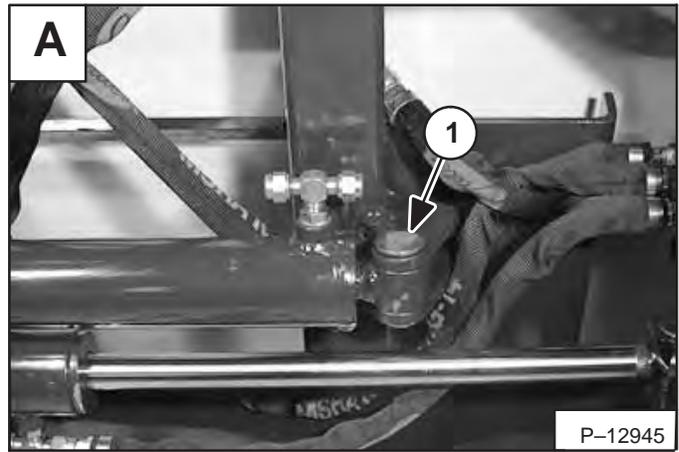


HYDRAULIC CYLINDER (Cont'd)

Right Arm Hydraulic Cylinder Removal And Installation (Cont'd)

Remove the pin (Item 1) [A].

Remove the cylinder.

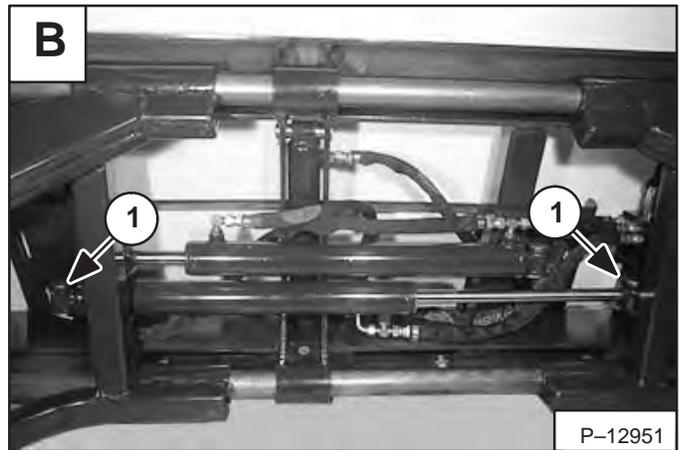


Left Arm Hydraulic Cylinder Removal And Installation

NOTE: Cylinder removal is shown on early model Sod Layer. Removal of cylinders on later models is the same except the photos will not reflect the later models.

NOTE: If only the left arm hydraulic cylinder is being removed, position the arms to provide access to the pins (Item 1) [B].

Mark the hoses for ease of assembly.

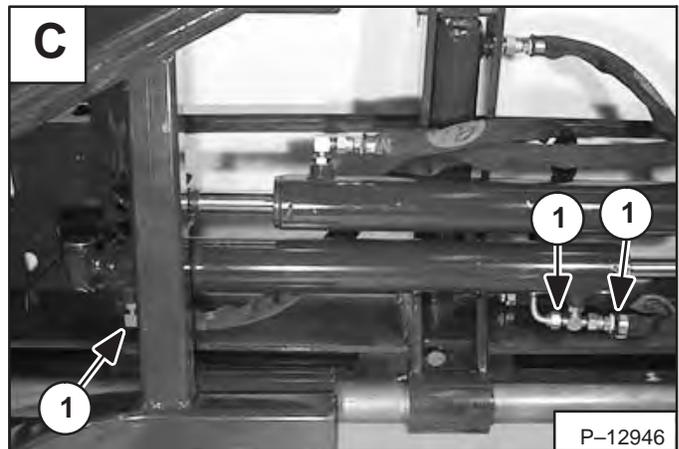


Remove the hoses (Item 1) [C].

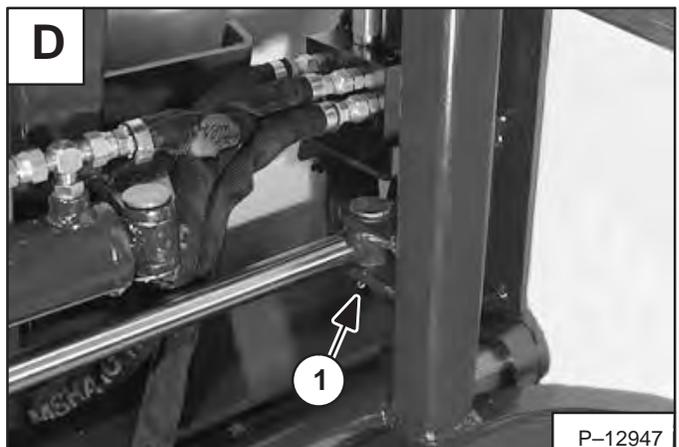
IMPORTANT

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



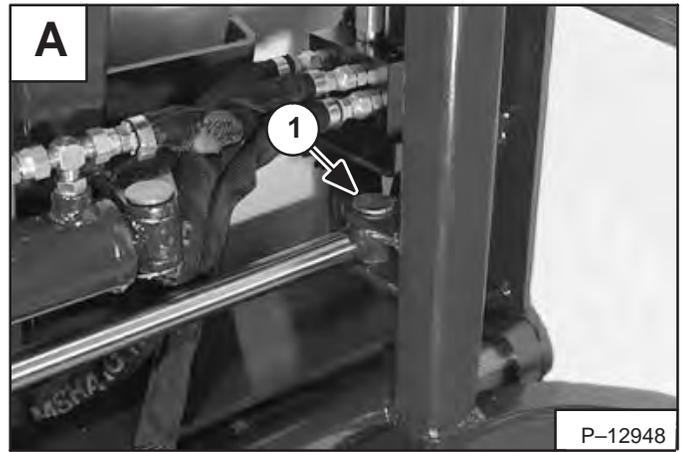
Remove the cotter pin (Item 1) [D].



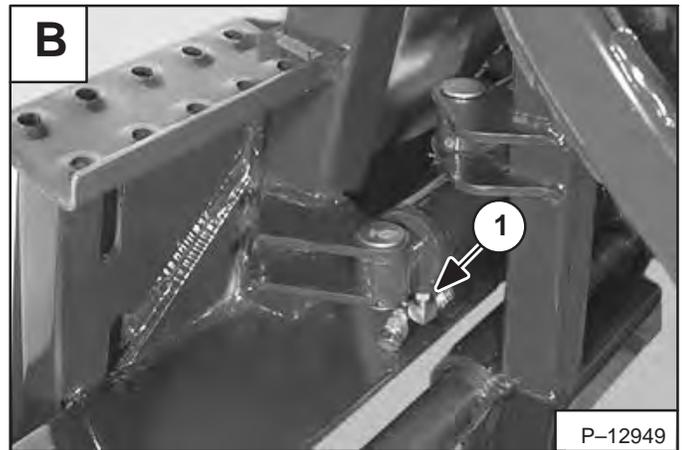
HYDRAULIC CYLINDER (Cont'd)

Left Arm Hydraulic Cylinder Removal And Installation (Cont'd)

Remove the pin (Item 1) [A].

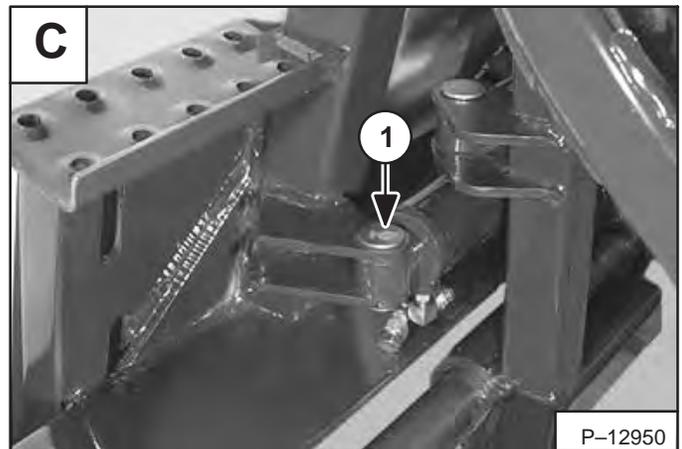


Remove the cotter pin (Item 1) [B].



Remove the pin (Item 1) [C].

Remove the cylinder.



HYDRAULIC CYLINDER (Cont'd)

Cutter Hydraulic Cylinder Removal And Installation (S/N 231811101 & Above and 749900101 & Above Only)

With the Sod Layer installed on the loader, extended the cutter bar (Item 1) [A] and place the Sod Layer on blocks (Item 2) [A]. Remove the loader from the Sod Layer.

WARNING

Before you leave the operator's seat:

- Lower the lift arms, put the attachment flat on the ground.
- Stop the engine.
- Engage the parking brake.
- Raise seat bar.
- *(Foot Pedal Controls)* Move pedals until both lock.
- *(Mechanical Hand Controls)* Move the hand controls until both lock. The seat bar system must lock the lift and tilt controls in neutral when the seat bar is up. Service the system if hand controls do not lock correctly.
- *(Advanced Hand Controls)* Move the hand controls to the NEUTRAL POSITION to make sure that both lift and tilt functions are deactivated. The seat bar system must deactivate the lift and tilt control functions when the seat bar is up. Service the system if hand controls do not deactivate.

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Mark the hoses for ease of assembly.

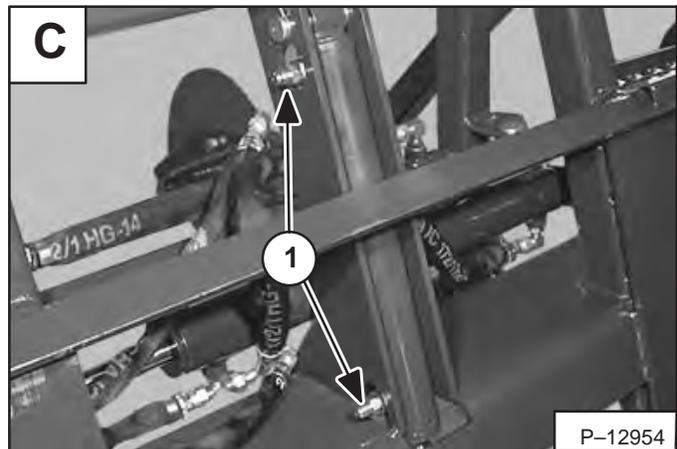
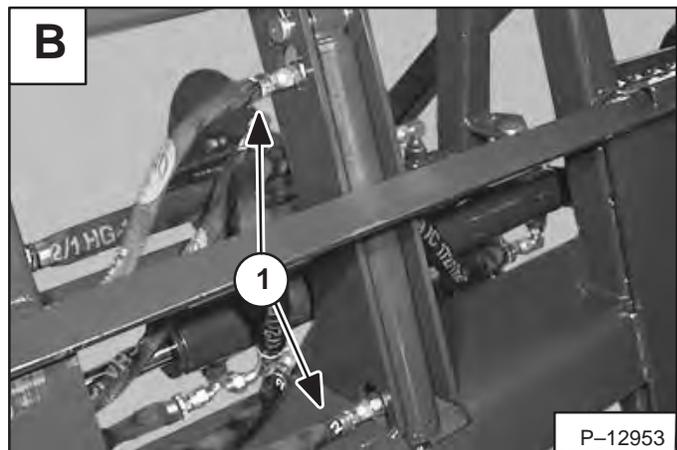
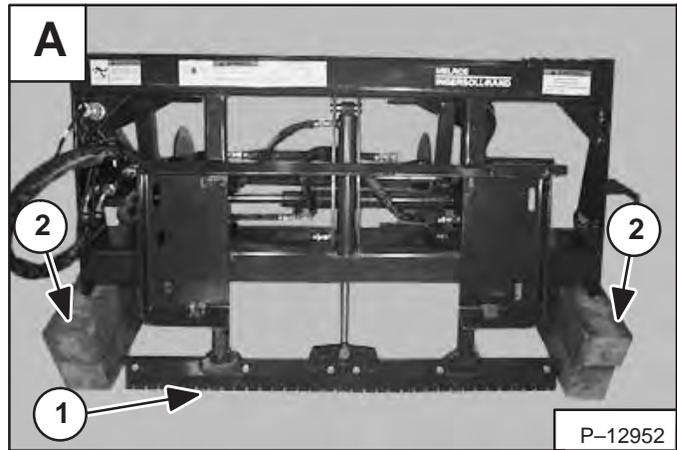
Remove the hoses (Item 1) [B].

Remove the fittings (Item 1) [C].

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.

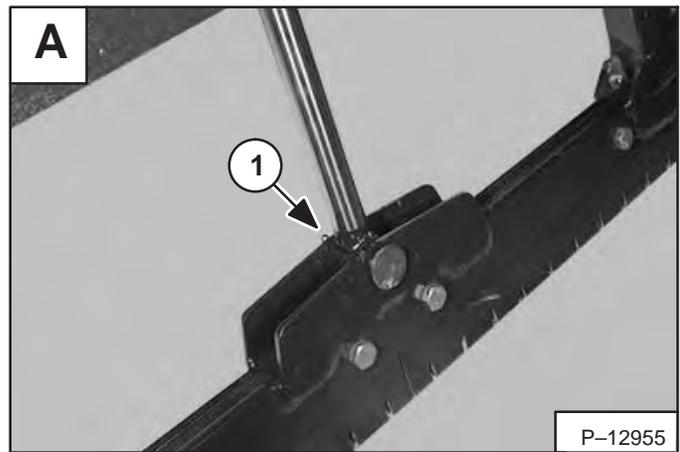
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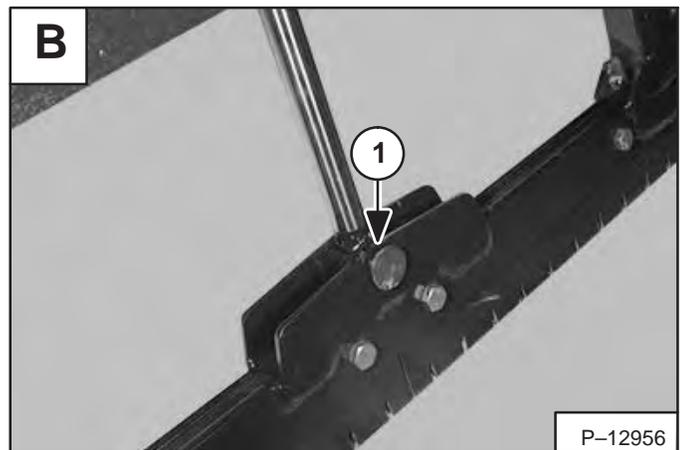
HYDRAULIC CYLINDER (Cont'd)

Cutter Hydraulic Cylinder Removal And Installation (S/N 231811101 & Above and 749900101 & Above Only) (Cont'd)

Remove the cotter pin (Item 1) [A].



Remove the pin (Item 1) [B].



Remove the cotter pin (Item 1) [C].



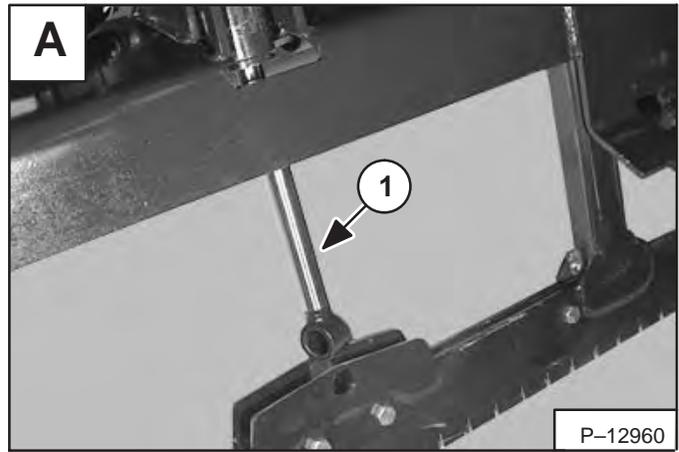
Remove the pin (Item 1) [D].



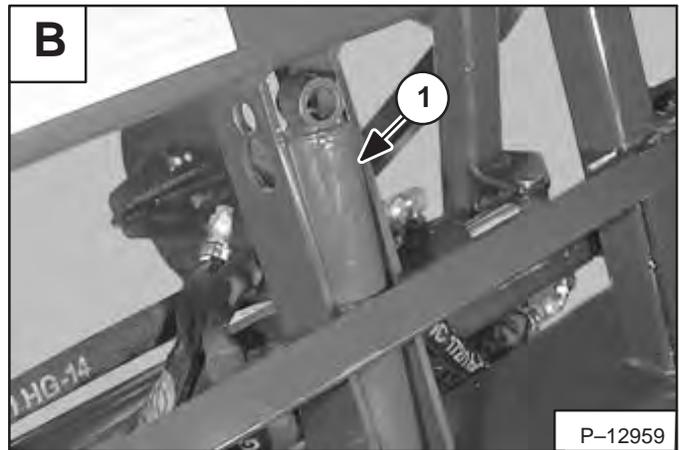
HYDRAULIC CYLINDER (Cont'd)

Cutter Hydraulic Cylinder Removal And Installation (S/N 231811101 & Above and 749900101 & Above Only) (Cont'd)

Push the rod end (Item 1) **[A]** of the cylinder in the cylinder housing.



Turn the cylinder housing (Item 1) **[B]** to remove the fitting boss from the frame.



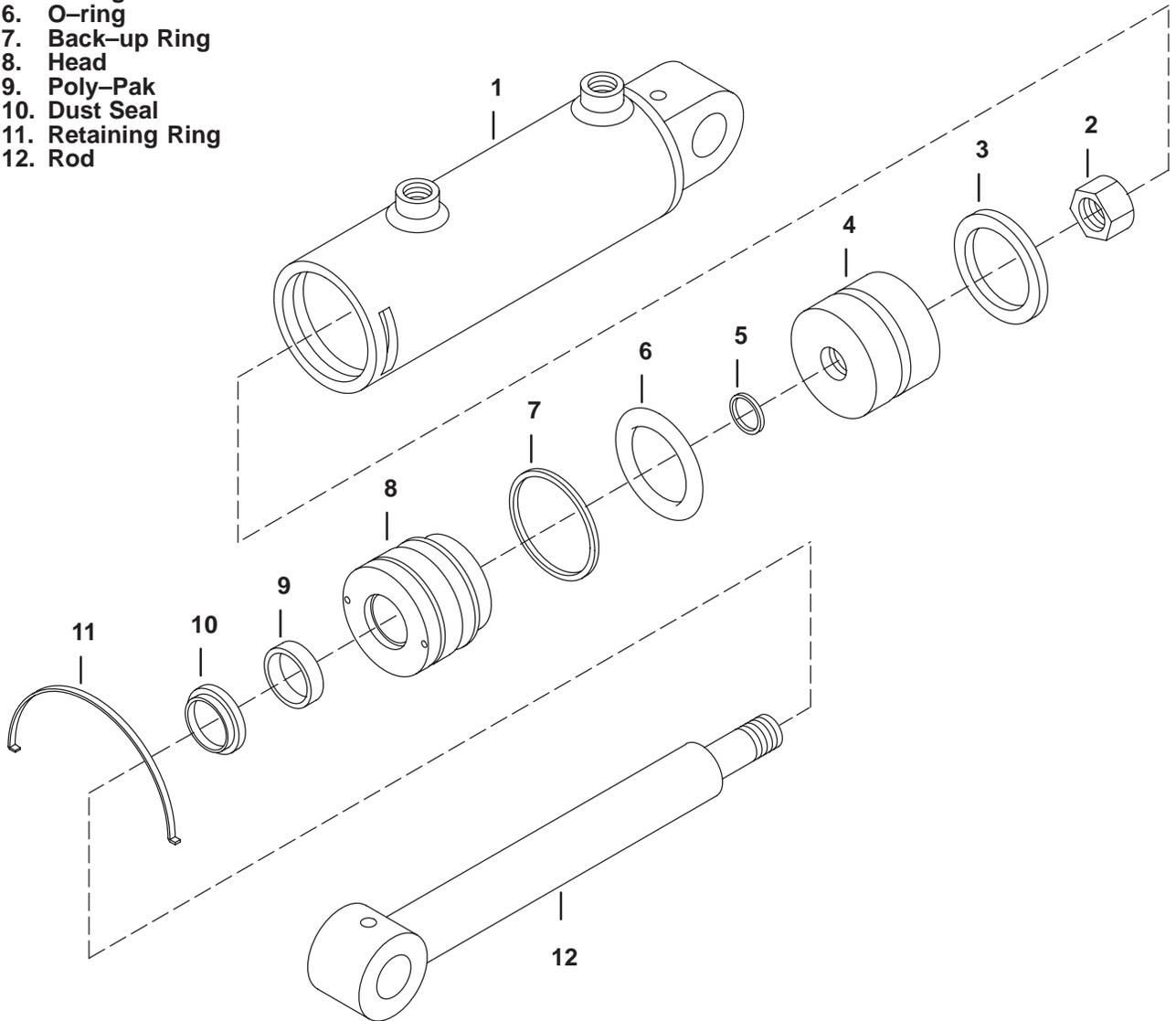
Lower and remove the cylinder (Item 1) **[C]** from the frame.



HYDRAULIC CYLINDER (Cont'd)

Parts Identification

1. Case
2. Nut
3. Seal
4. Piston
5. O-ring
6. O-ring
7. Back-up Ring
8. Head
9. Poly-Pak
10. Dust Seal
11. Retaining Ring
12. Rod



TS-01702

HYDRAULIC CYLINDER (Cont'd)

Disassembly

NOTE: The photos may not show the cylinder exactly as it appears, but the procedure is correct for all cylinders.

The following tools will be needed to disassemble and assemble the cylinder:

MEL1455 – Spanner Wrench
MEL1396 – Universal Seal Expander
MEL1032 – Rod Seal Installation Tool

Place the base end of the hydraulic cylinder in a drain pan. Move the rod in and out to remove the fluid from the cylinder. Move the rod slowly so the fluid will go directly into the drain pan.

Place the base end of the cylinder in a vise.

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.

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Use a spanner wrench to turn the head counterclockwise, and remove the retainer clip (Item 1) [A].

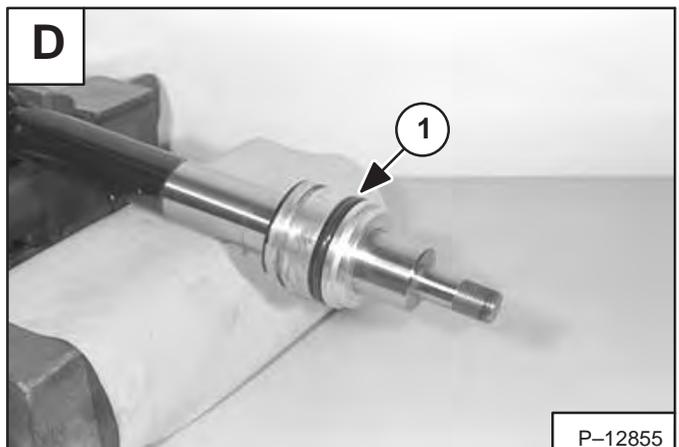
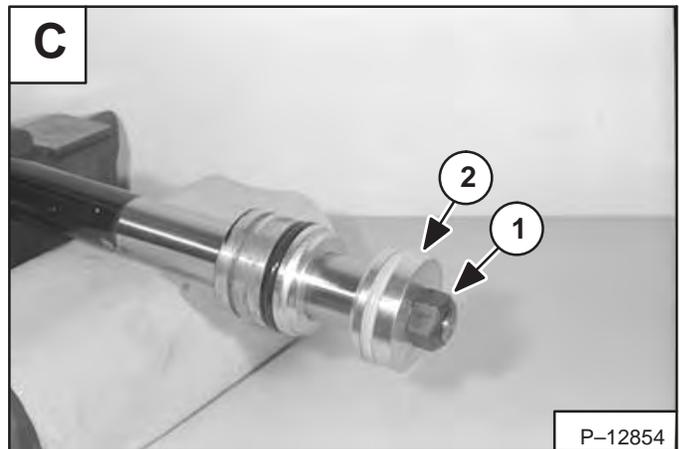
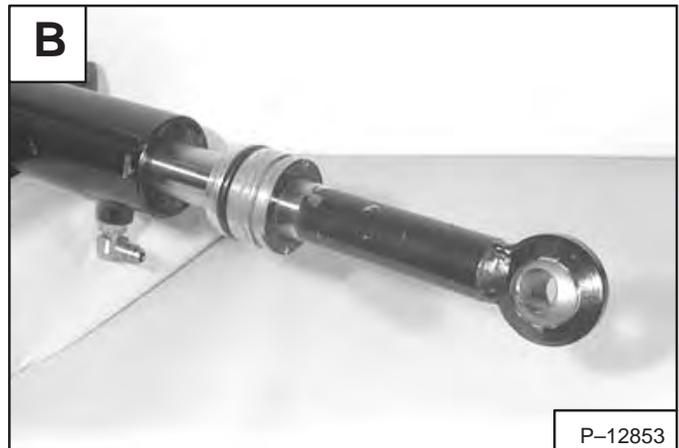
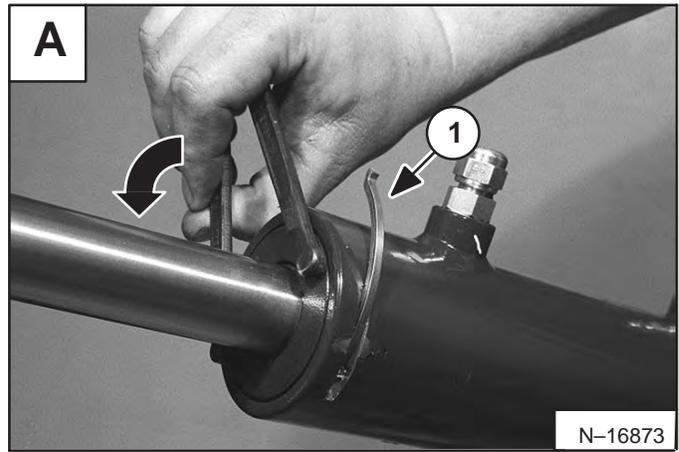
Remove the rod assembly from the cylinder case [B].

Remove the cylinder case from the vise.

Place the rod end in the vise.

Remove the nut (Item 1) [C] from the piston end of the rod and slide the piston (Item 2) [C] off the rod.

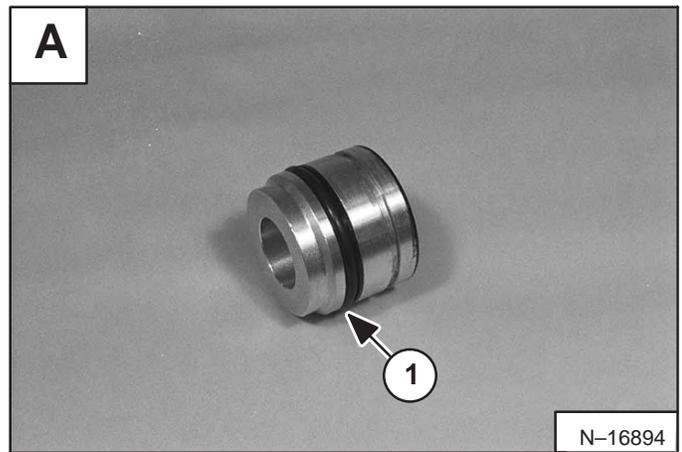
Remove the head (Item 1) [D] from the rod.



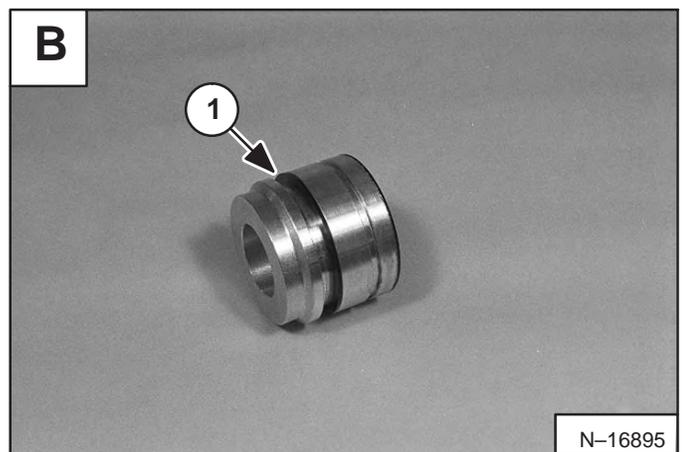
HYDRAULIC CYLINDER (Cont'd)

Disassembly (Cont'd)

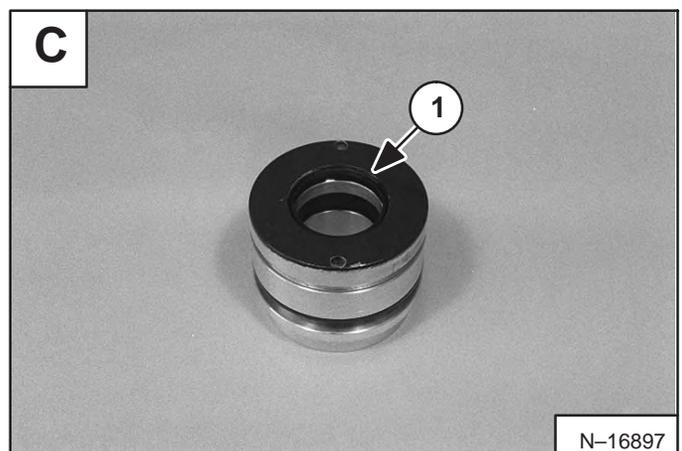
Remove the O-ring (Item 1) **[A]** from the head.



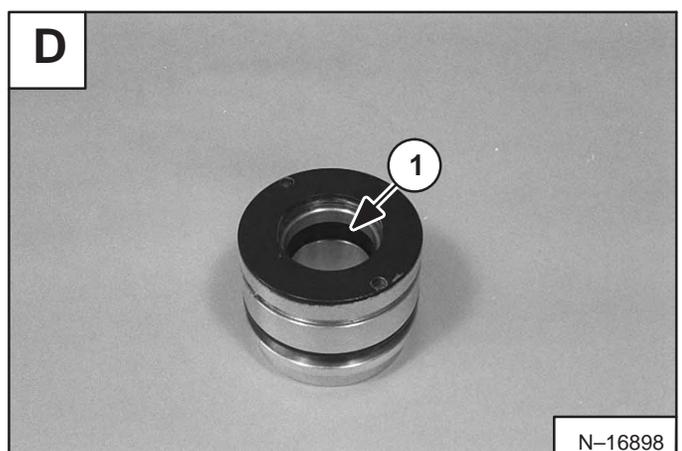
Remove the back-up ring (Item 1) **[B]** from the head.



Remove the wiper seal (Item 1) **[C]** from the head.

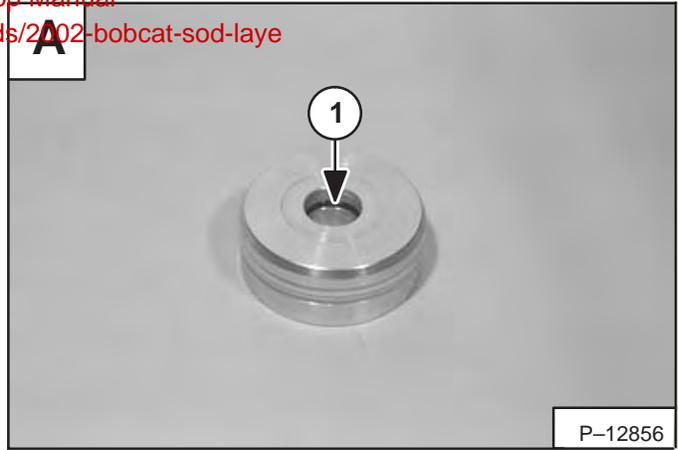


Remove the oil seal (Item 1) **[D]** from the head.

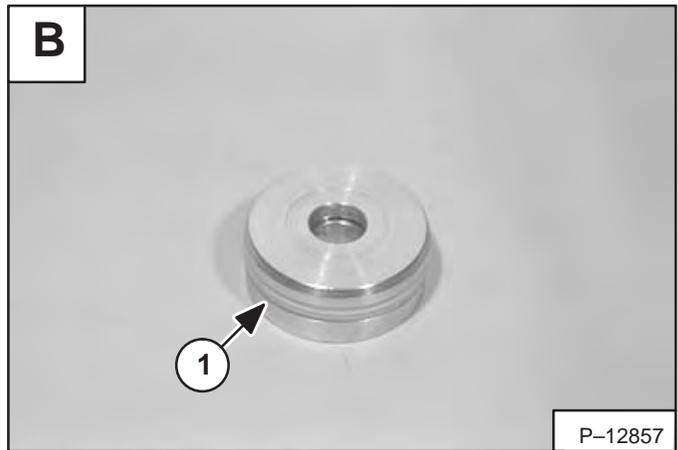


Disassembly (Cont'd)

Remove the O-ring (Item 1) [A] from the piston.



Remove the piston seal (Item 1) [B] from the piston.



Remove the O-ring (Item 1) [C] from the piston.

