

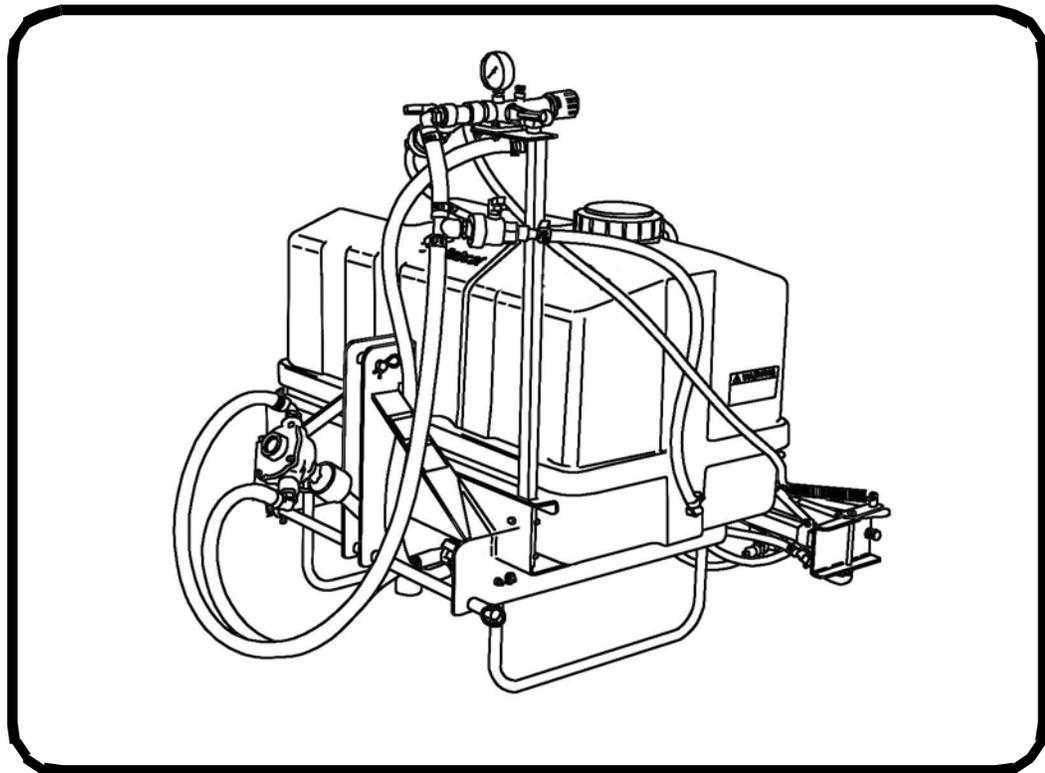


Bobcat®

Service Manual

Three-Point PTO Sprayer

(3 PT Sprayer) S/N ABKT00101 & Above



Product: 2009 Bobcat Three-Point PTO Sprayer Service Repair Workshop Manual

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Sample of manual. Download All 54 pages at:

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MAINTENANCE SAFETY



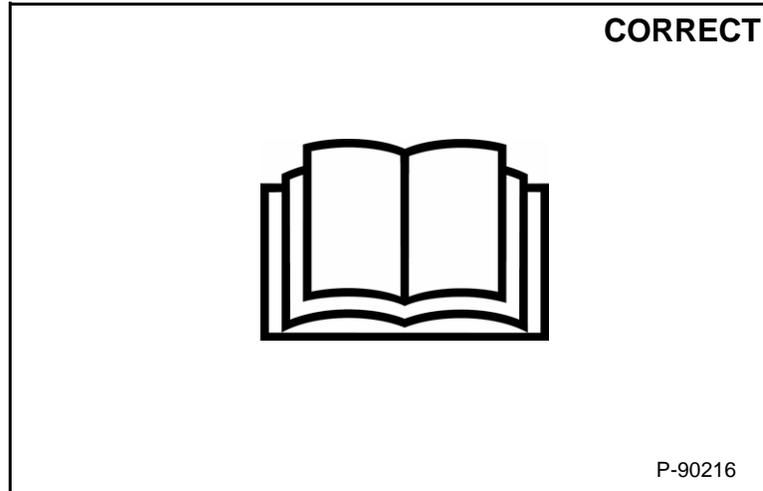
WARNING

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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CONTENTS

SAFETY & MAINTENANCE	10-01
MAIN FRAME	20-01
SPECIFICATIONS	SPEC-01
ALPHABETICAL INDEX	INDEX-01



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FOREWORD

SERIAL NUMBER LOCATION	1-7
Implement Serial Number Location	1-7
DELIVERY REPORT	1-7
IMPLEMENT IDENTIFICATION	1-8
IMPLEMENT SIGNS (DECALS)	1-9

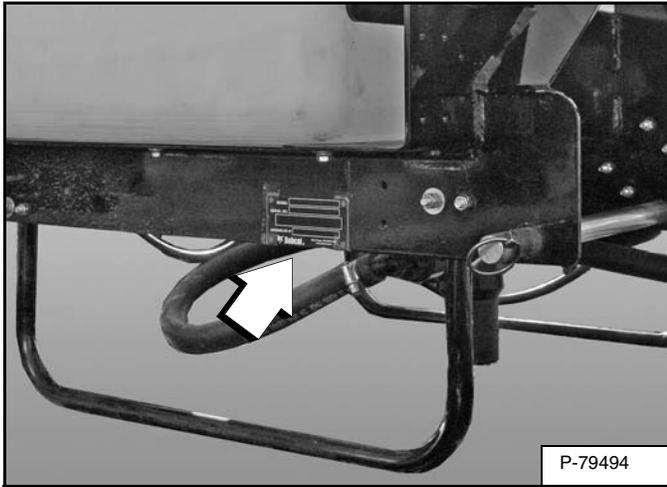


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SERIAL NUMBER LOCATION

Implement Serial Number Location

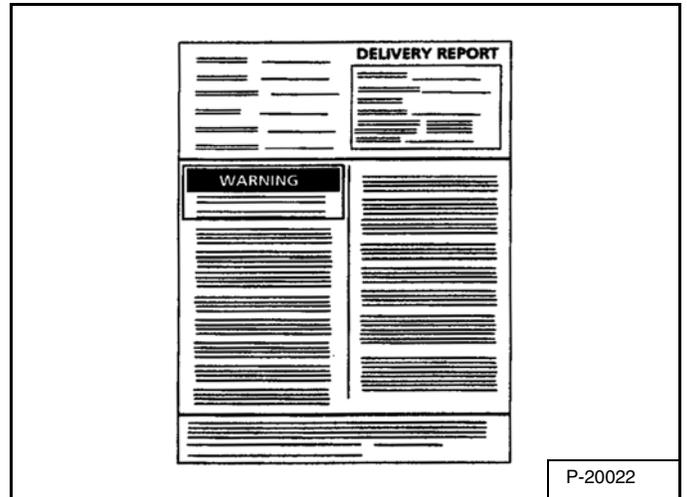
Figure 1



Always use the serial number of the three-point PTO sprayer 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 [Figure 1].

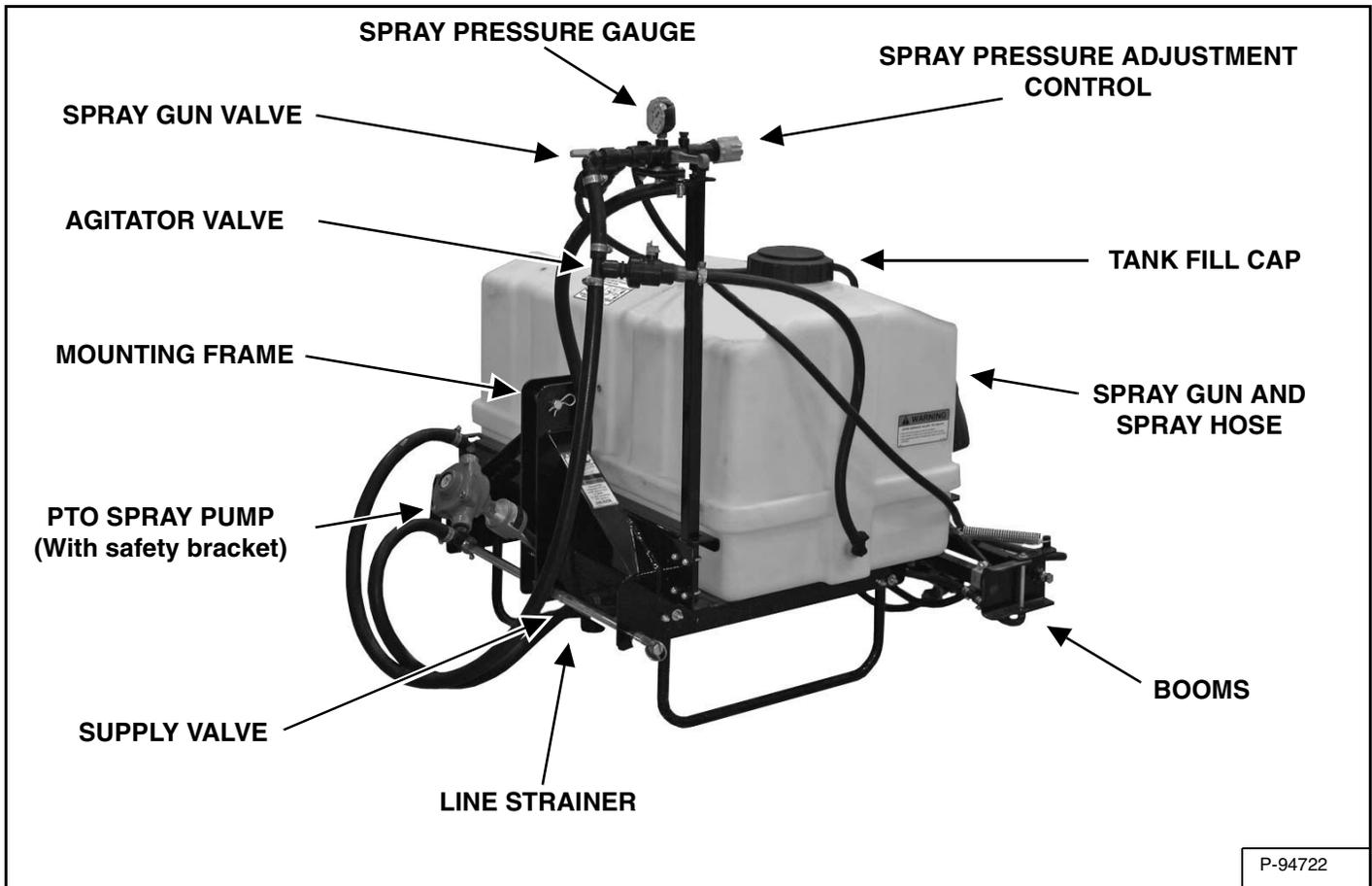
DELIVERY REPORT

Figure 2



The delivery report must be filled out by the dealer and signed by the owner or operator when the three-point PTO sprayer is delivered. An explanation of the form must be given to the owner. Make sure it is filled out completely [Figure 2].

IMPLEMENT IDENTIFICATION





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SAFETY & MAINTENANCE

TROUBLESHOOTING	10-10-1
Chart	10-10-1
REMOVAL AND INSTALLATION	10-20-1
Line Strainer	10-20-1
IMPLEMENT STORAGE AND RETURN TO SERVICE	10-30-1
Storage	10-30-1
Return to Service	10-30-1
DAILY INSPECTION	10-40-1
Implement Mounting Frame	10-40-1
Three-Point Hitch	10-40-1
Hoses	10-40-2
Nozzles	10-40-2



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TROUBLESHOOTING

Chart

PROBLEM	CAUSE	CORRECTION
Low Pressure	Plugged filter.	Clean filter.
Pump Does Not Start	Rear PTO not engaged.	Engage rear PTO.
	Tank empty.	Fill tank.
Spray Gun Does Not Work	Valve not ON.	Turn valve ON.
	Plugged filter.	Clean filter.



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REMOVAL AND INSTALLATION

Line Strainer

WARNING

The spray tank and system must be emptied of chemical mixture and flushed with clean water before servicing the spray system or spraying components.

W-2213-1095

WARNING

Do not spill chemicals on skin or clothing. If chemicals are spilled, remove contaminated clothing immediately and wash skin (and clothing) thoroughly with soap and water. Wash hands and face with soap and water and change clothing after spraying.

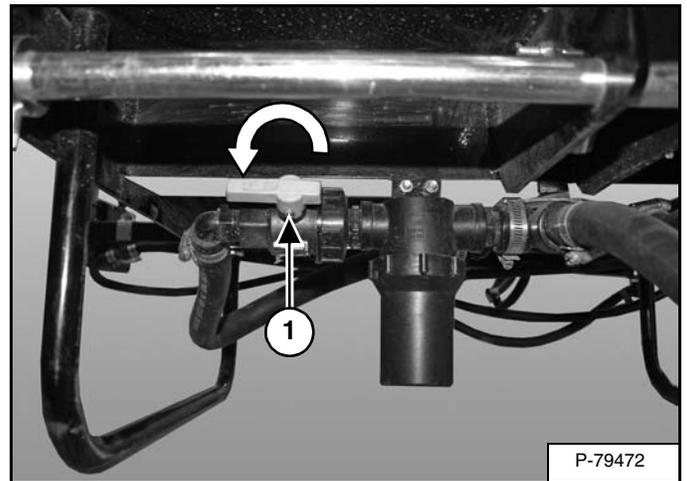
W-2208-0995

WARNING

Always read the label before using chemicals. Follow the instructions from the chemical manufacturer on how to select, use and handle each chemical. Note protection information each time before opening the container.

W-2209-0995

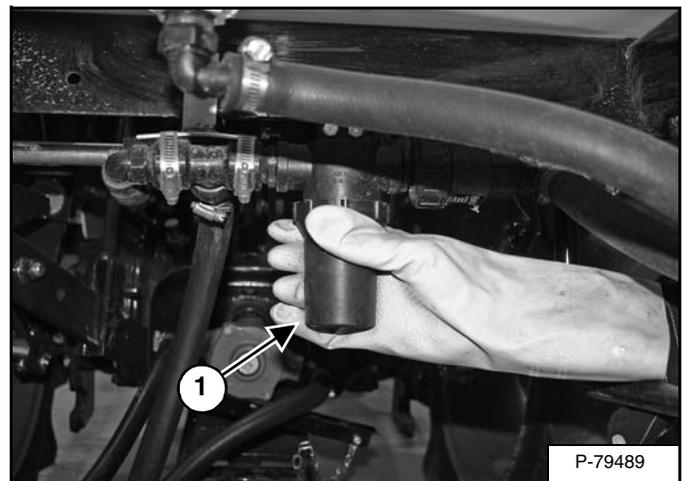
Figure 10-20-1



Before servicing or replacing the strainer, turn valve (Item 1) [Figure 10-20-1] to the close position to keep the water in the tank when the cup is removed.

NOTE: Product contained in the hoses will empty through the strainer housing when the cup is removed.

Figure 10-20-2



Remove the cup (Item 1) [Figure 10-20-2] and screen. Clean thoroughly and replace after everyday use.

NOTE: When reassembling the screen and cup on the housing, slide the screen in position prior to installing the cup. Use the same procedure when the O-ring seal is replaced.



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IMPLEMENT STORAGE AND RETURN TO SERVICE

Storage

Sometimes it may be necessary to store your Bobcat implement for an extended period of time. Below is a list of items to perform before storage.

- Thoroughly clean and wash the implement.
- Check for damaged or missing decals. Replace if necessary.
- Check for loose hardware, missing or damaged parts.
- Replace worn or damaged parts.
- Lubricate the implement (if applicable).
- Place the implement on flat ground in a dry protected shelter.

NOTE: In muddy conditions or to prevent the implement from freezing to the ground, put the implement on planks or blocks before removing the implement from the machine.

Return to Service

After the Bobcat implement has been in storage, it is necessary to follow a list of items to return the implement to service.

- Check for damaged or missing decals. Replace if necessary.
- Check for loose hardware, missing or damaged parts.
- Replace worn or damaged parts.
- Lubricate the implement (if applicable).

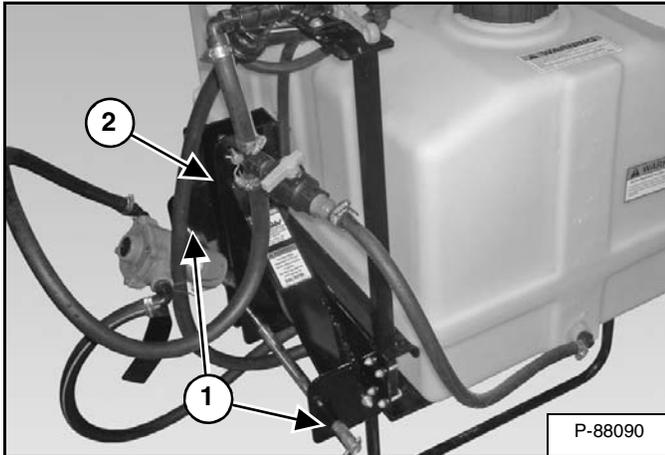


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DAILY INSPECTION

Implement Mounting Frame

Figure 10-40-1



Inspect the lower three-point mounts and pins (Item 1) and upper three-point mount and pin (Item 2) [Figure 10-40-1] and all welds on the three-point PTO sprayer for wear and damage each time the three-point PTO sprayer is removed from the compact tractor.

Three-Point Hitch

WARNING

AVOID INJURY OR DEATH

- Disengage the PTO (rear and mid), engage the parking brake, stop the engine and make sure all rotating components are completely stopped before connecting, disconnecting, adjusting or cleaning any PTO driven equipment.
- Always keep PTO shields and all guards in place when using PTO driven equipment.
- Disengage PTO (rear and mid) for road travel.
- Keep hands, feet and clothing away.

W-2568-0907

WARNING

AVOID INJURY OR DEATH

When operating the machine:

- Use ROPS and fasten the seat belt.
- Keep PTO shields and all guards in place.
- Do not wear seat belt if ROPS is down.
- Keep bystanders away. Never carry riders.

W-2660-0907

WARNING

AVOID INJURY OR DEATH

The parking brake must be engaged before leaving the operator's seat. Rollaway can occur because the transmission may not prevent machine movement. Lock the brake pedals together before activating the parking brake.

W-2656-0807

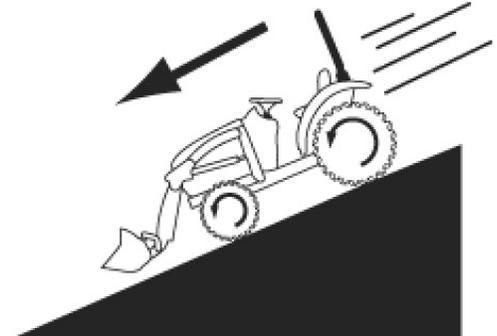
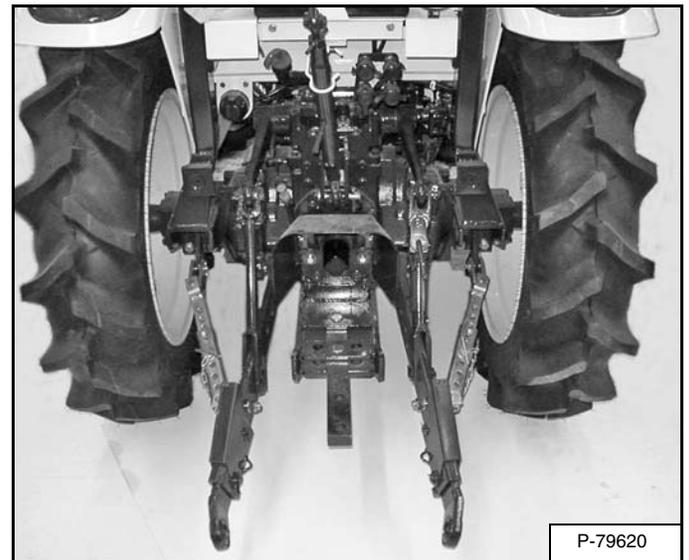


Figure 10-40-2



Inspect the three-point hitch linkage condition and for proper operation. PTO shaft splines, guards, and shields. Replace if damaged or missing [Figure 10-40-2]. Repair broken or loose parts.

See the Compact Tractor Operation & Maintenance Manual for detailed information on inspecting the compact tractor.

DAILY INSPECTION (CONT'D)

Hoses

! WARNING

The spray tank and system must be emptied of chemical mixture and flushed with clean water before servicing the spray system or spraying components.

W-2213-1095

! WARNING

Do not spill chemicals on skin or clothing. If chemicals are spilled, remove contaminated clothing immediately and wash skin (and clothing) thoroughly with soap and water. Wash hands and face with soap and water and change clothing after spraying.

W-2208-0995

! 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.

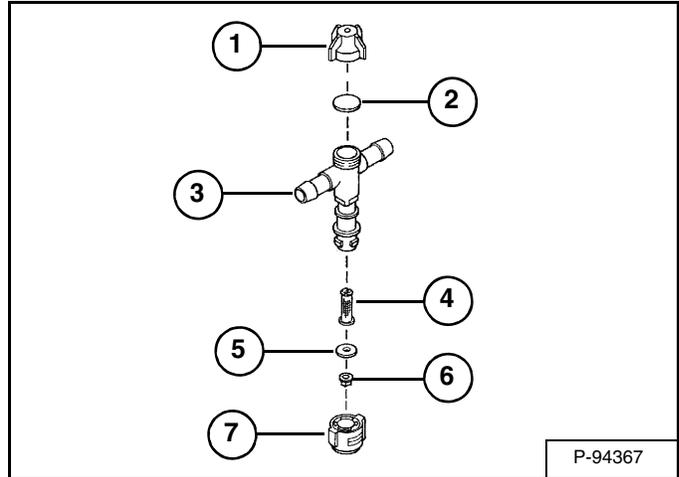
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Check all bolts for tightness and connections for leaks. Check all hoses for chafing or rubbing on frame.

Check all hose clamps for tightness. Tighten clamps to 50 - 60 in.-lb. (5,7 - 6,8 N•m) torque.

Nozzles

Figure 10-40-3



Nozzle identification [Figure 10-40-3].

1. End Cap
2. Viton Diaphragm
3. Body
4. Strainer
5. Gasket Seat
6. Tip
7. Retainer Cap

A leaking nozzle may indicate the following problems:

- Damaged or misaligned viton diaphragm (Item 2) [Figure 10-40-3].
- Bad or damaged spring within end cap (Item 1) [Figure 10-40-3].
- Cracked or damaged body (Item 3) [Figure 10-40-3].
- Damaged or plugged tip (Item 6) [Figure 10-40-3].
- Damaged gasket seat (Item 5) [Figure 10-40-3].
- Damaged retainer cap (Item 7) [Figure 10-40-3].

When the problem is identified, correct or replace the parts as needed. If reduced flow is noted in any nozzle, remove the end cap and clean the nozzle strainer (Item 4) [Figure 10-40-3].

MAIN FRAME

PUMP	20-10-1
Removal And Installation	20-10-1
Parts Identification	20-10-2
Disassembly	20-10-3
Assembly	20-10-4
SPRAY TANK	20-20-1
Removal And Installation	20-20-1
Disassembly And Assembly	20-20-2
BOOM ASSEMBLY	20-30-1
Removal And Installation	20-30-1
Disassembly And Assembly	20-30-2
SPRAY WAND	20-40-1
Removal And Installation	20-40-1
Parts Identification	20-40-2
Disassembly	20-40-3
Assembly	20-40-6
NOZZLE	20-50-1
Removal And Installation	20-50-1
Parts Identification	20-50-2
Disassembly And Assembly	20-50-3



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PUMP

Removal And Installation

! WARNING

The spray tank and system must be emptied of chemical mixture and flushed with clean water before servicing the spray system or spraying components.

W-2213-1095

! WARNING

Do not spill chemicals on skin or clothing. If chemicals are spilled, remove contaminated clothing immediately and wash skin (and clothing) thoroughly with soap and water. Wash hands and face with soap and water and change clothing after spraying.

W-2208-0995

! WARNING

Always read the label before using chemicals. Follow the instructions from the chemical manufacturer on how to select, use and handle each chemical. Note protection information each time before opening the container.

W-2209-0995

! WARNING

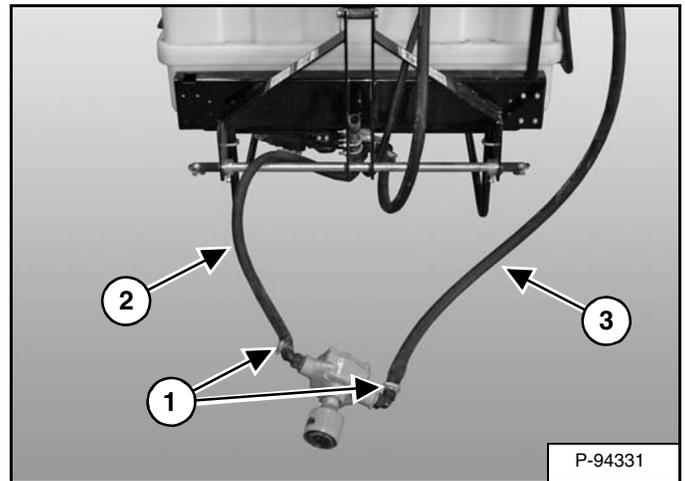
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- Flying debris or loose material is present.
- Engine is running.
- Tools are being used.

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Figure 20-10-1



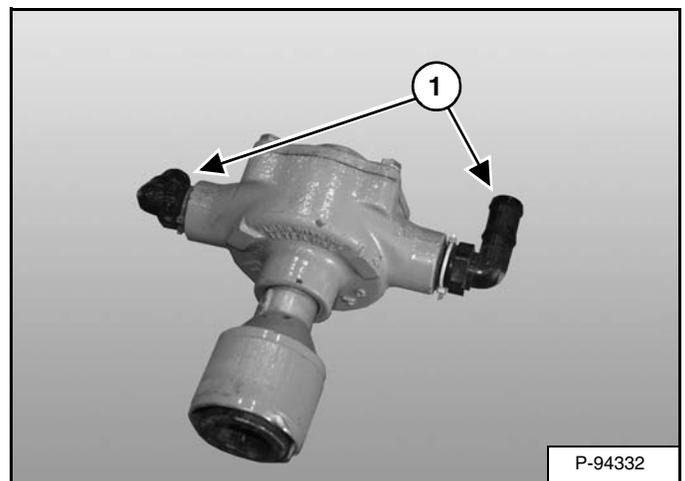
Loosen the two hose clamps (Item 1) [Figure 20-10-1].

Remove hose (Item 2) and hose (Item 3) [Figure 20-10-1].

NOTE: Mark hoses for correct installation.

Installation: Install hoses (Items 2 & 3) and tighten hose clamps (Item 1) [Figure 20-10-1] to 50 - 60 in.-lb. (5,7 - 6,8 N•m) torque.

Figure 20-10-2



NOTE: Mark the fitting location for proper installation.

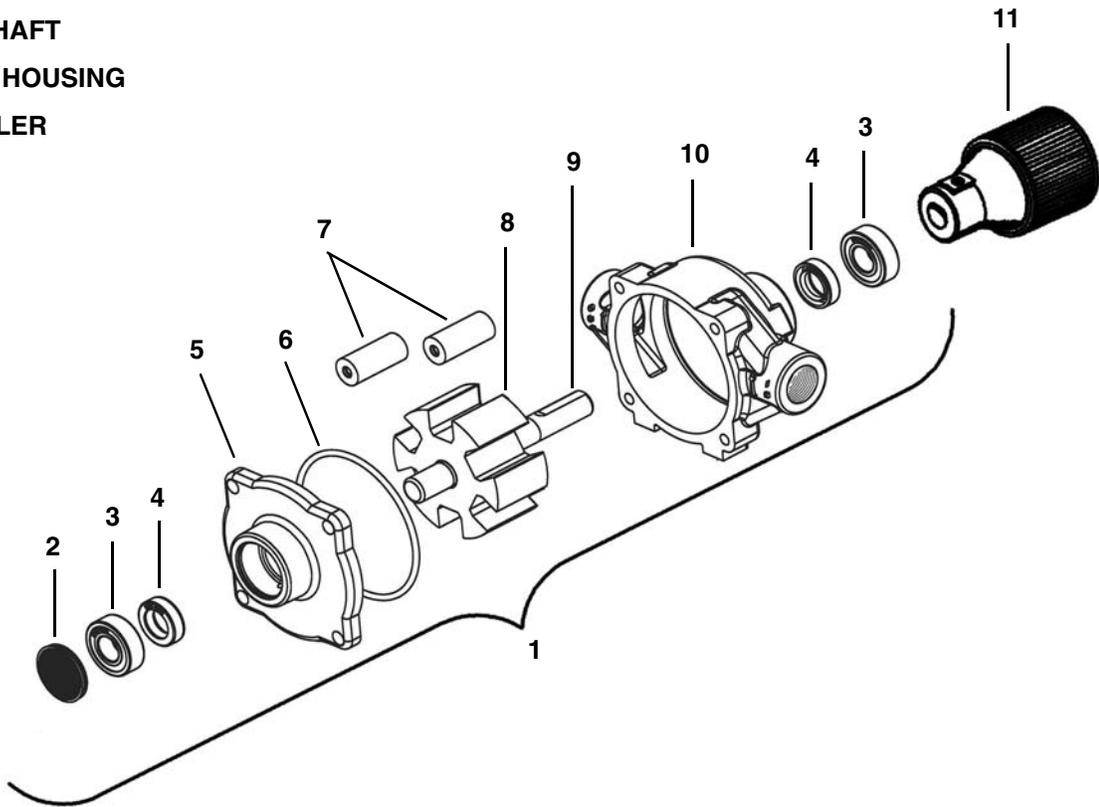
Remove the two fittings (Item 1) [Figure 20-10-2].

Installation: Wrap teflon tape on the threads of the fittings and install fittings into the pump.

PUMP (CONT'D)

Parts Identification

1. PTO PUMP (W / Ref. 2 - 10)
2. END PLATE
3. BEARING
4. SHAFT SEAL
5. END PLATE
6. O-RING
7. PUMP ROLLER
8. ROTOR
9. OUTPUT SHAFT
10. PTO PUMP HOUSING
11. PTO COUPLER



P-94284

! WARNING

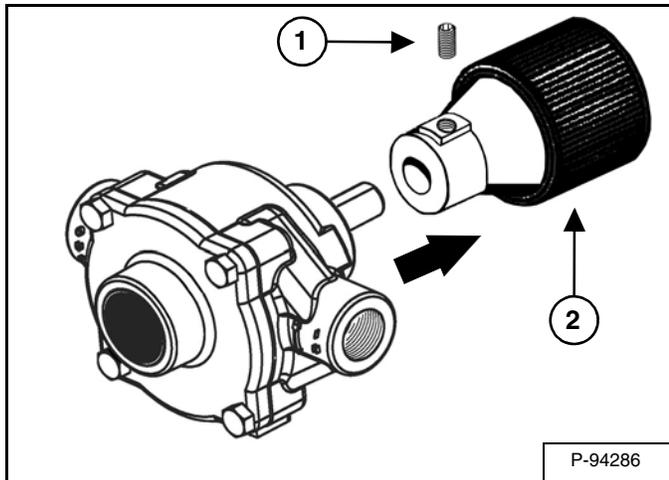
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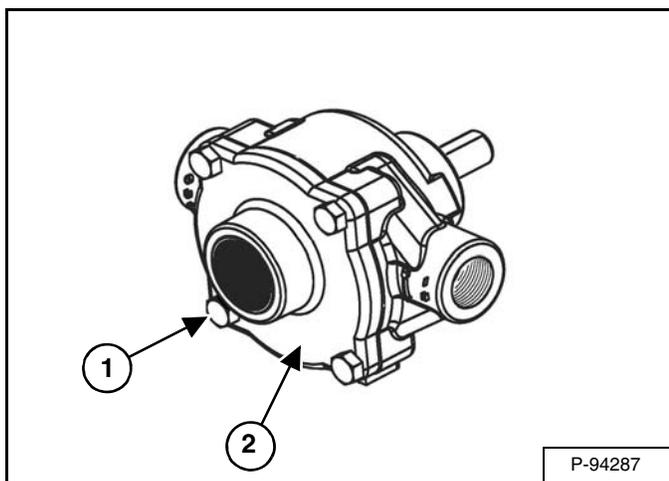
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Figure 20-10-3



Remove set screw (Item 1) and PTO coupler (Item 2) [Figure 20-10-3].

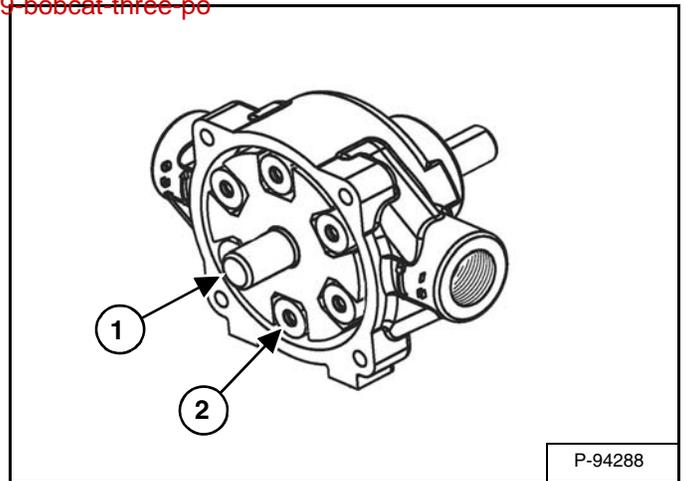
Figure 20-10-4



Remove the four bolts (Item 1) and end plate (Item 2) [Figure 20-10-4].

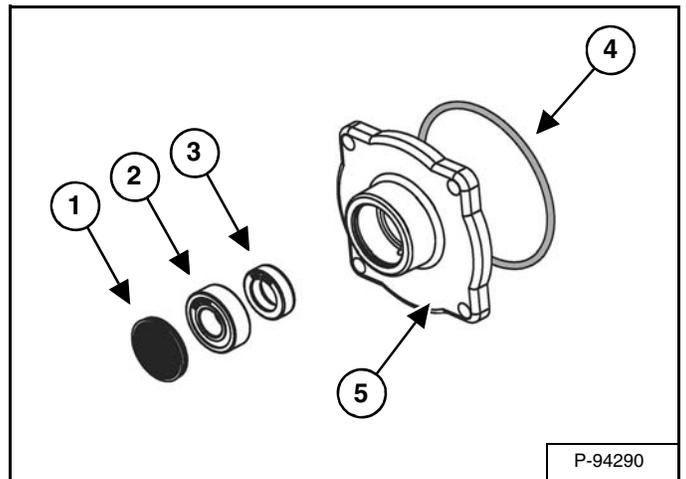
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Figure 20-10-5



Remove the output shaft and rotor (Item 1) and six pump rollers (Item 2) [Figure 20-10-5].

Figure 20-10-6



Remove the end plate (Item 1), bearing (Item 2), shaft seal (Item 3) and O-ring (Item 4) from the end plate (Item 5) [Figure 20-10-6].