

Concrete Pump

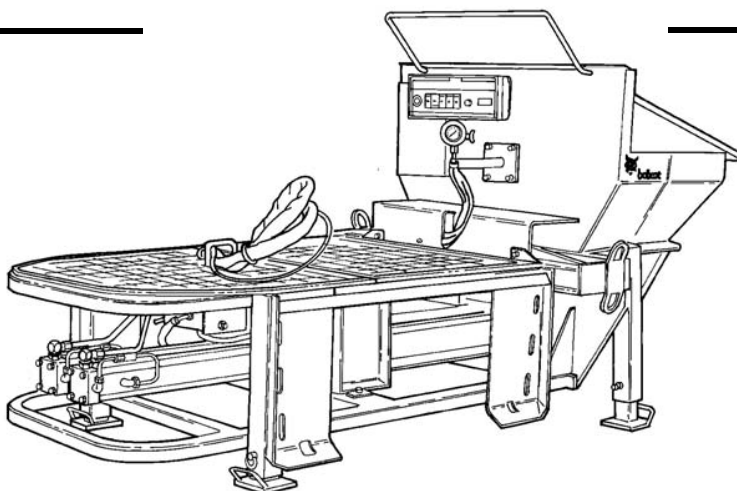
Used With Remote
Attachment Control



Bobcat®

Service Manual

S/N 233100101 & Above



IR Ingersoll Rand
Compact Vehicle Technologies
Printed in U.S.A.

CONTENTS

IDENTIFICATION	IV
SERIAL NUMBER LOCATION	III
SAFETY AND MAINTENANCE.....	10-01
HYDRAULIC SYSTEM	20-01
MAIN FRAME	30-01
ELECTRICAL SYSTEM	40-01
SPECIFICATIONS AND SCHEMATICS	SPEC-01

**SAFETY AND
MAINTENANCE**

**HYDRAULIC
SYSTEM**

**MAIN
FRAME**

**ELECTRICAL
SYSTEM**

**SPECIFICATIONS
AND
SCHEMATICS**

CALIFORNIA

PROPOSITION 65 WARNING

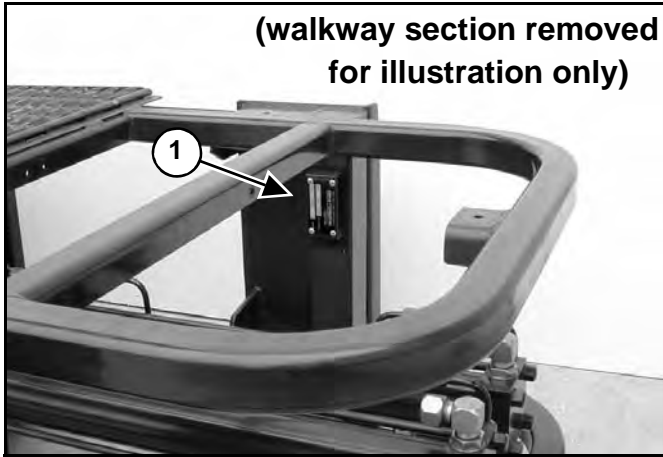
Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects and other reproductive harm.



Bobcat®

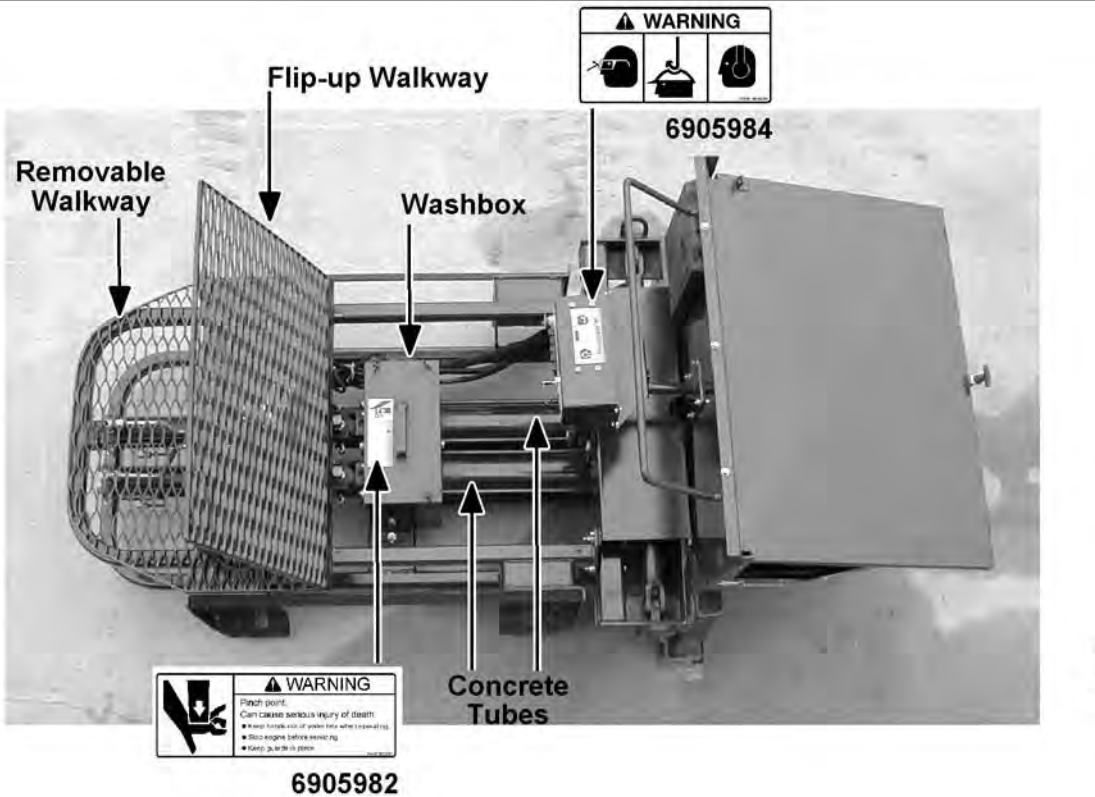
SERIAL NUMBER LOCATION

Figure 1

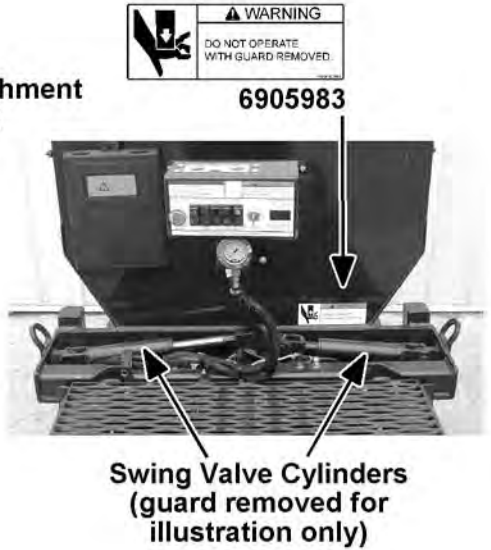
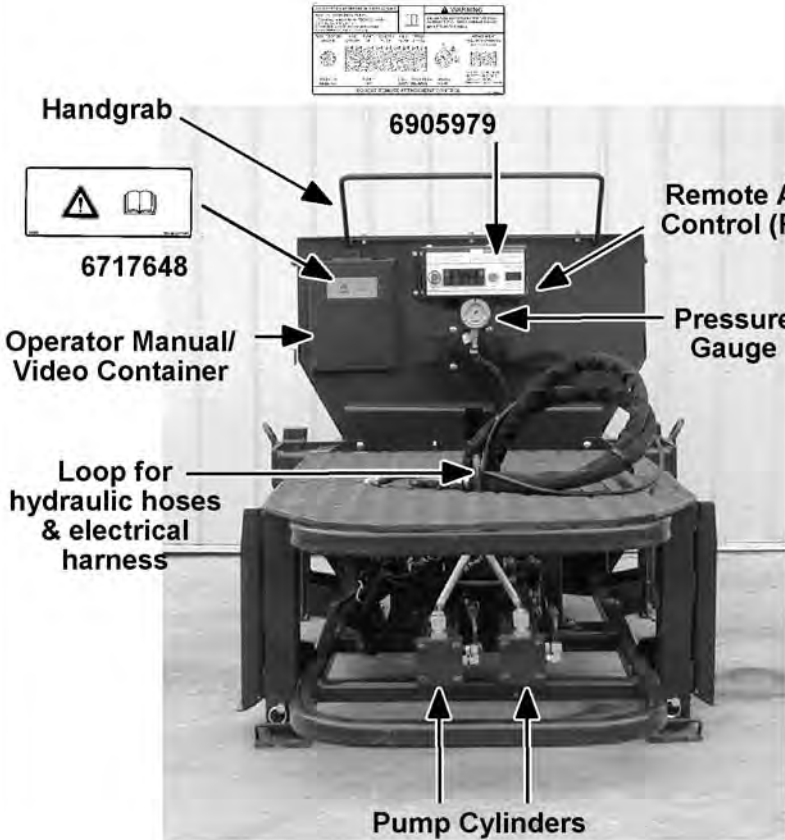


It is important to make the correct reference to the serial number of the Concrete Pump when making repairs or ordering parts **[Figure 1]**. Early or later models (identifications made by serial number) may use different parts, or it may be necessary to use a different procedure in doing a specific service operation.

IDENTIFICATION



P-14220

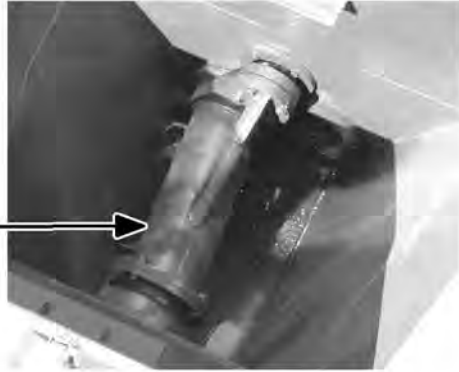


P-14221

P-14222

IDENTIFICATION (CONT'D)

Swing Valve
(grate removed for
illustration only)

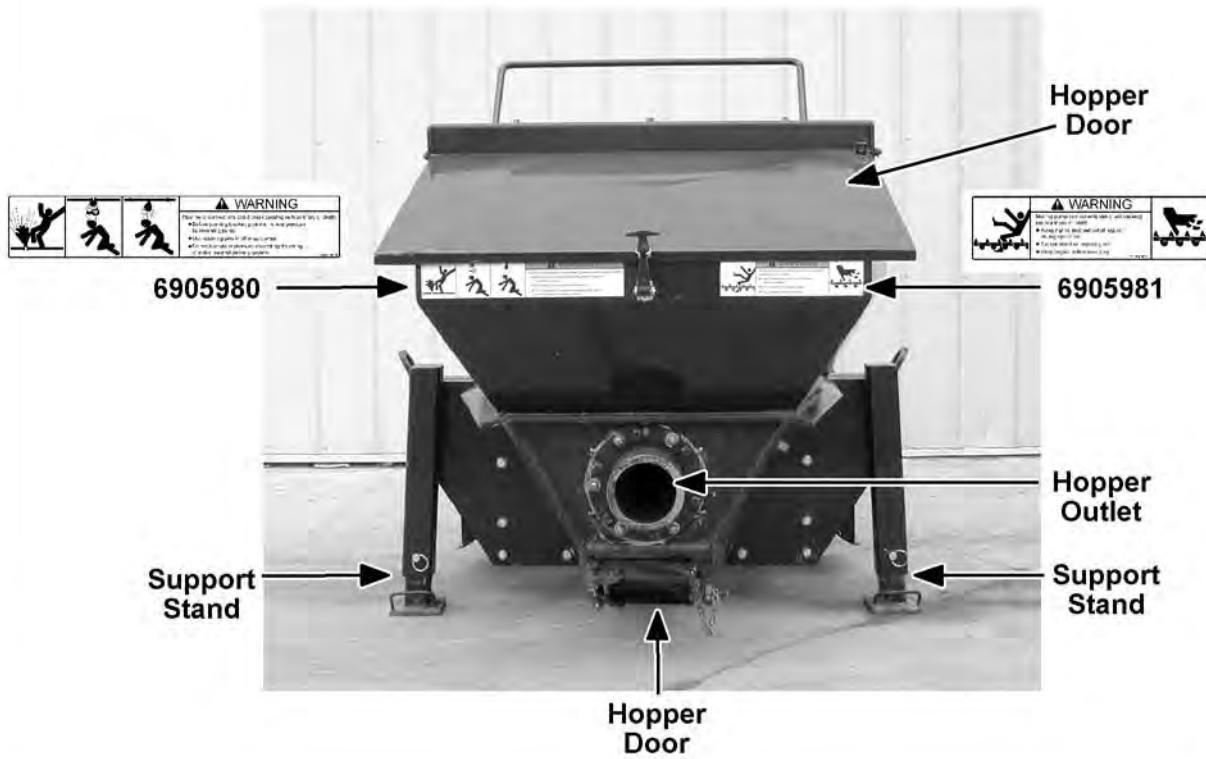


P-14223

Hopper
Grate



P-14224



P-14225



Bobcat®

SAFETY AND MAINTENANCE

INSPECTION

Hand Lever Bob-Tach Inspection	10-20-3
Power Bob-Tach Inspection	10-20-4
Concrete Pump Mount Inspection	10-20-2
Washbox Fluid Inspection	10-20-1
Swing Valve Shaft Inspection	10-20-2

LUBRICATION	10-30-1
Lubrication Points	10-30-1

TROUBLESHOOTING	10-10-1
Agitator	10-10-2
Concrete Pump	10-10-1
Remote Control	10-10-2



TROUBLESHOOTING

Concrete Pump

PROBLEM	CAUSE	CORRECTION
Concrete Pump does not seat properly on the Bob-Tach.	Bob-Tach wedges are not fully retracted before installation.	Retract Bob-Tach wedges before installation.
	Mud, dirt or stones are lodged between the Bob-Tach and the Concrete Pump.	Remove debris between Bob-Tach and Concrete Pump.
Loader will not start with Concrete Pump removed (Early models only).	Connector not installed on remote attachment control harness on the loader lift arm.	Install connector on wire harness.
Loader will not start with loader key switch with Concrete Pump installed.	Engine stop switch on Remote Attachment Control engaged.	Turn the engine stop switch clockwise to release the switch.
	Key switch on Remote Attachment Control in the run position.	Turn the key switch to the OFF position.
Loader will not start with the Remote Attachment Control key switch.	Engine stop switch on Remote Attachment Control engaged.	Turn the engine stop switch clockwise to release the switch.
	Loader key switch in the run position.	Turn the loader key switch to the OFF position, or press the stop button.
Concrete Pump does not pump.	No hydraulic flow.	Check quick couplers connection. Check for damaged hose ends and fittings.
	Electrical connections not made.	Check electrical connections.
		Press RAC PUMP ON switch.
Delivery system plugs.	Mix is not pumpable.	Consult mix supplier.
	Delivery system components are too small.	Be sure delivery system hoses and tubes are 3 to 4 times the size of the largest aggregate to be pumped.
	Delivery system not lubricated before pumping.	Disassemble and clean delivery system and hopper. Lubricate the delivery system before pumping.
	Old concrete set up in delivery system.	Disassemble, clean and inspect delivery system.
	Damaged or defective couplings or gaskets.	Disassemble, clean and inspect delivery system.
	Bends or kinks in delivery system hoses or tubes.	Inspect delivery system. Run delivery system in a line as short and straight as possible to placement area.
Concrete mix leaking at coupling joints.	Coupling and gasket not installed properly or worn.	Dip gasket in warm, soapy water or oil before applying. Correctly align components to be connected before applying coupling.
		Disassemble, clean and inspect coupling and gasket for wear.
Washbox oil rapidly becomes contaminated with concrete mix.	Worn piston cups.	Replace piston cups.
Oil dripping from cylinder block.	Worn rod seals.	Replace cylinder rod seals.
Pumping rate is decreasing.	Worn piston cups.	Replace piston cups.
	Wear ring not tight against wear plate.	Tighten nut on crank arm assembly.
	Worn or scored concrete tubes.	Replace concrete tubes.

TROUBLESHOOTING (CONT'D)

Agitator

PROBLEM	CAUSE	CORRECTION
Agitator not turning.	Valve not turned on.	Turn valve on.
	Loader hydraulics not turned on.	Start loader hydraulics.

Remote Control

PROBLEM	CAUSE	CORRECTION
Transmitter does not work.	Weak battery.	Replace battery.
	Not activated.	Turn toggle OFF, then ON to reset.
	Antenna cord is coiled up.	Uncoil cord.
	Poor antenna placement.	Place on cab or away from pump.
	Steel covered building blocking signal.	Place antenna in line of site with transmitter.
	Loose receiver wire connection.	Check wire connections.

***NOTE: For other service related questions concerning the Radio Remote Control, contact Microtronics.**

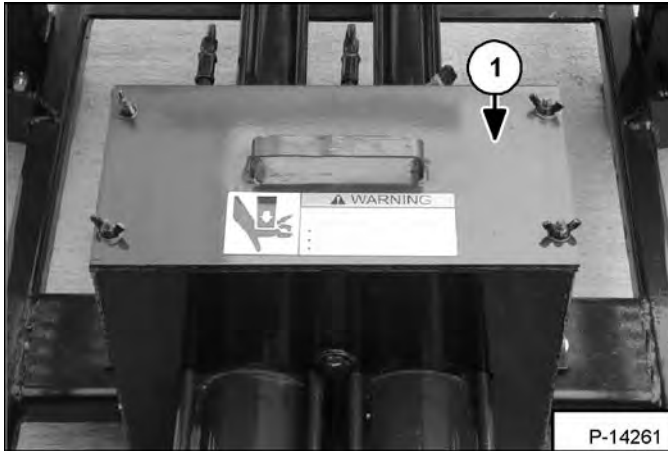
**Microtronics
Technical Service Department
1219 North 10
Humboldt, KS 66748
Phone - (620) - 473 - 3533**

***A serial number is required when contacting them.**

INSPECTION

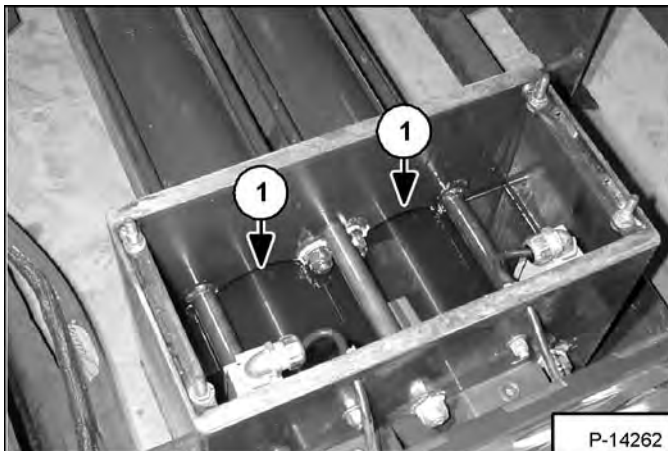
Washbox Fluid Inspection

Figure 10-20-1



Inspect the fluid level in the washbox (Item 1) [Figure 10-20-1] after every other use. If more than 1 inch of sediment is present in the bottom of the washbox, the fluid must be changed.

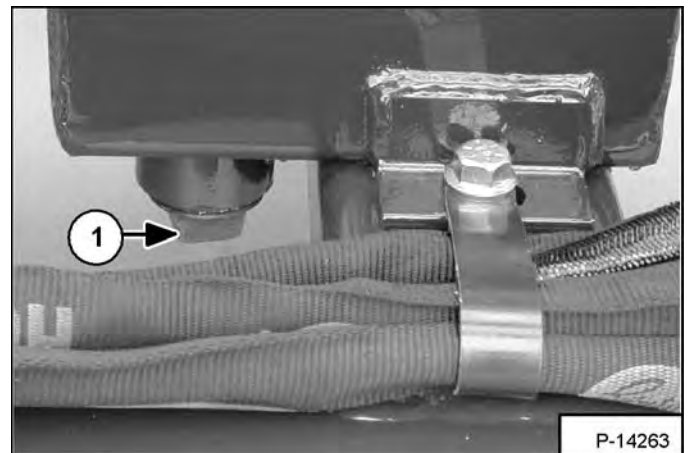
Figure 10-20-2



The washbox should be kept filled with skid-steer loader hydraulic fluid (or SAE 10W-40 oil) to a level about 1 inch below the top of the concrete tubes (Item 1) [Figure 10-20-2].

Position a drain pan under the washbox to collect the hydraulic fluid.

Figure 10-20-3



Remove the drain plug (Item 1) [Figure 10-20-3] and drain the fluid from the washbox. Clean any sediment from the bottom of the washbox.

Reinstall the drain plug and fill the washbox as described above.

IMPORTANT

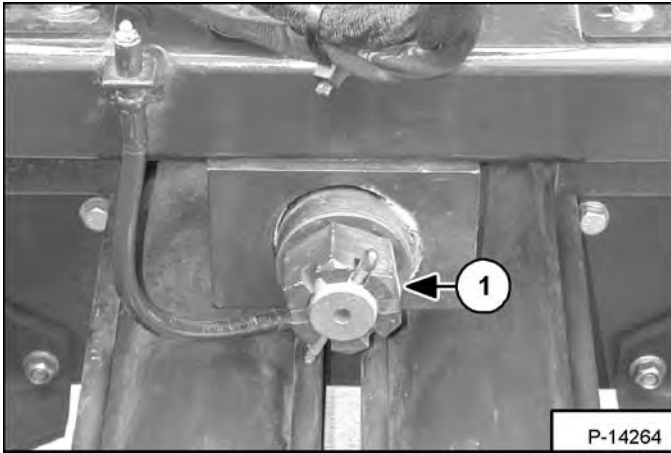
Fluid such as engine oil, hydraulic fluid, coolants, grease, etc. must be disposed of in an environmentally safe manner. Some regulations require that certain spills and leaks on the ground must be cleaned in a specific manner. See local, state and federal regulations for the correct disposal.

I-2067-0499

INSPECTION (CONT'D)

Swing Valve Shaft Inspection

Figure 10-20-4

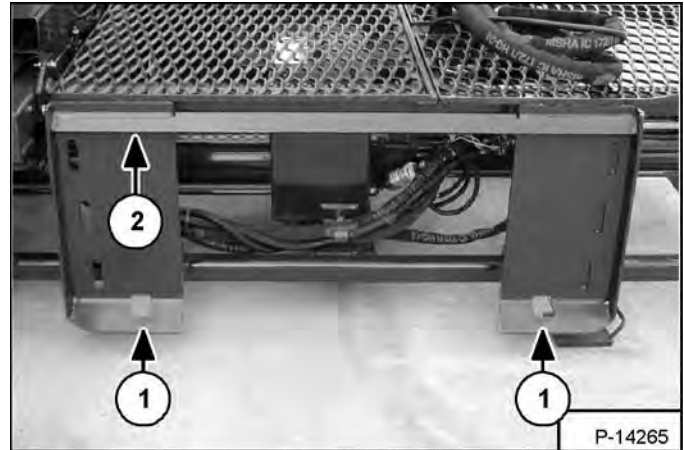


Periodically check and adjust the tightness of the castle nut (Item 1) [Figure 10-20-4] on the swing valve shaft to keep the wear area tight. Tighten to 40 in.-lb. (5 N•m) torque.

NOTE: Overtightening will cause excessive wear on the wear ring and wear plate.

Concrete Pump Mount Inspection

Figure 10-20-5

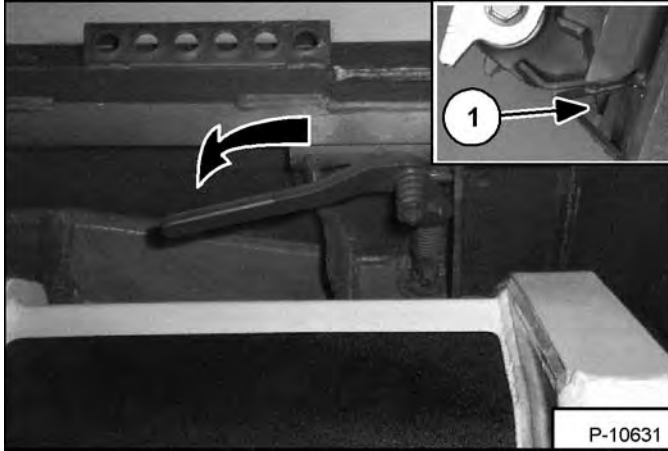


Inspect the Bob-Tach wedge mounts (Item 1) [Figure 10-20-5], mounting flange (Item 2) [Figure 10-20-5] and all welds on the Concrete Pump mount for wear and damage each time the Concrete Pump is removed from the loader.

INSPECTION (CONT'D)

Hand Lever Bob-Tach Inspection

Figure 10-20-6



Move the Bob-Tach levers to engage the wedges [Figure 10-20-6]. The levers and wedges must move freely.

The wedges must extend through the holes in the attachment mounting frame (Item 1) [Figure 10-20-6].

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

Figure 10-20-7

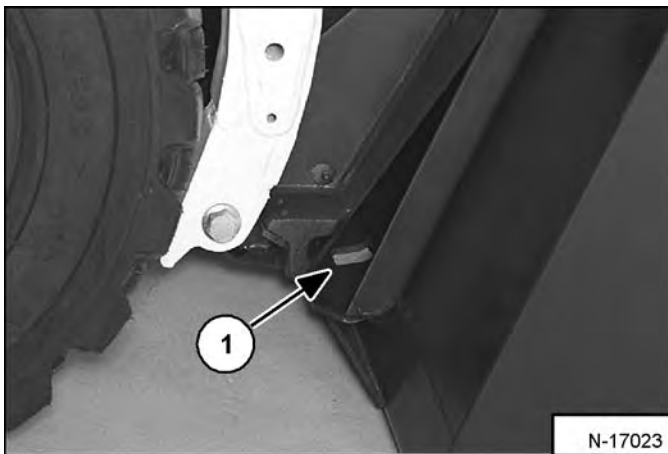
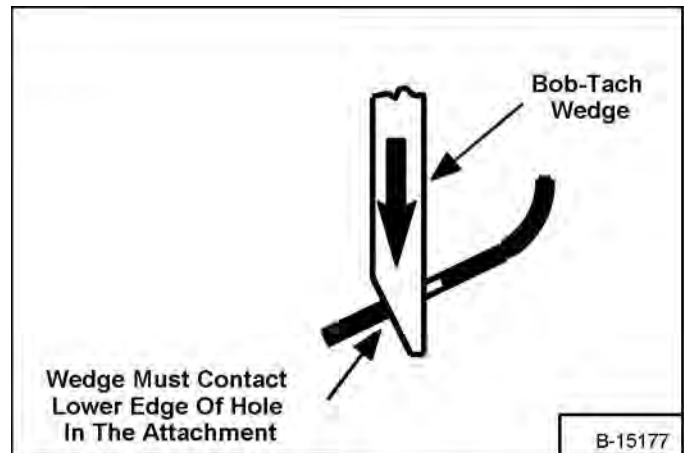


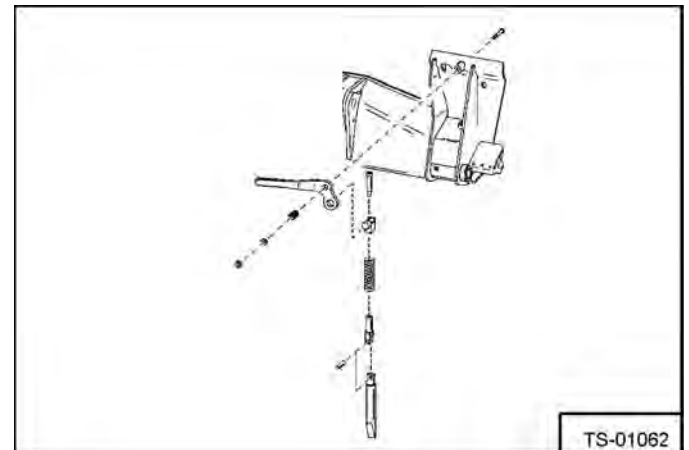
Figure 10-20-8



The spring loaded wedge (Item 1) [Figure 10-20-6] must contact the lower edge of the hole in the attachment (Item 1) [Figure 10-20-7] and [Figure 10-20-8].

If the wedge does not contact the lower edge of the hole [Figure 10-20-7] and [Figure 10-20-8], the attachment will be loose and can come off the Bob-Tach.

Figure 10-20-9



Inspect the mounting frame on the attachment and the Bob-Tach, linkages and wedges for excessive wear or damage [Figure 10-20-9]. Replace any parts that are damaged, bent, or missing. Keep all fasteners tight.

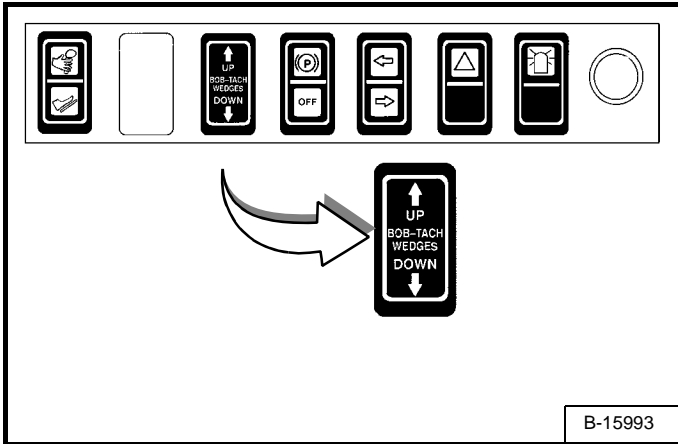
Look for cracked welds. Contact your Bobcat dealer for repair or replacement parts.

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

INSPECTION (CONT'D)

Power Bob-Tach Inspection

Figure 10-20-10



Push and hold the BOB-TACH WEDGES UP switch [Figure 10-20-10] (Front Accessory Panel) until the wedges are fully raised. Push and hold the BOB-TACH WEDGES DOWN switch [Figure 10-20-10] until the wedges are fully down. The wedges must move freely.

Figure 10-20-11

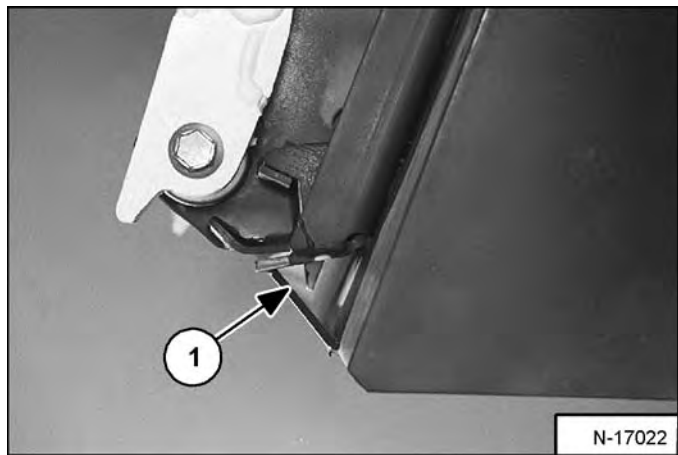
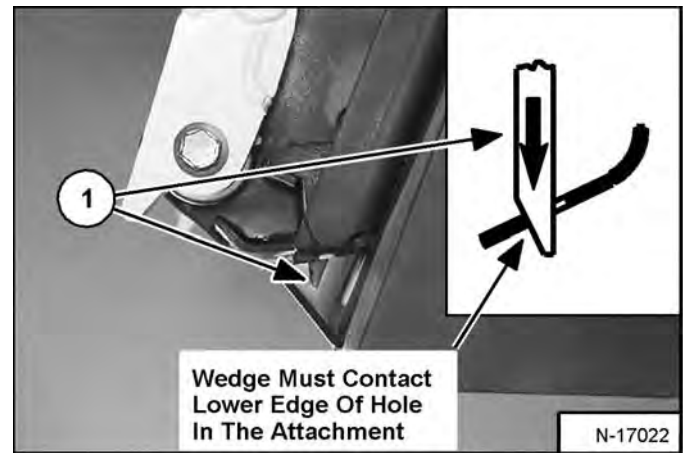


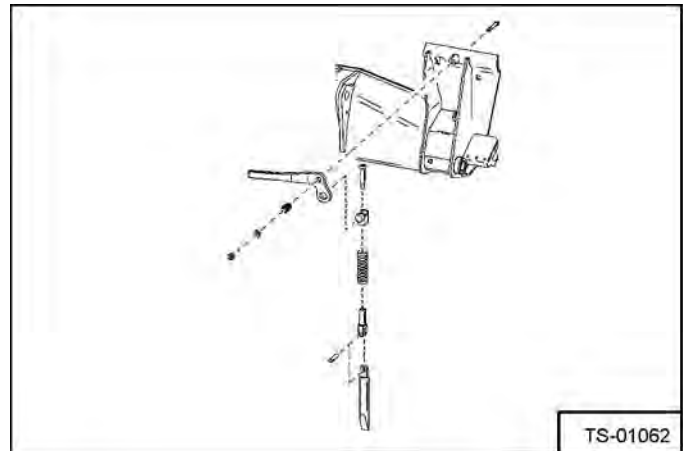
Figure 10-20-12



The wedges must extend through the holes in the attachment mounting frame (Item 1) [Figure 10-20-11] and must contact the lower edge of the hole in the attachment [Figure 10-20-11] and (Item 1) [Figure 10-20-12].

If the wedge does not contact the lower edge of the hole [Figure 10-20-12], the attachment will be loose and can come off the Bob-Tach.

Figure 10-20-13



Inspect the mounting frame on the attachment and the Bob-Tach, linkages and wedges for excessive wear or damage [Figure 10-20-13]. 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.

LUBRICATION

Lubrication Points

Always use a good quality lithium base grease when lubricating the Concrete Pump. Apply the lubricant until extra grease shows.

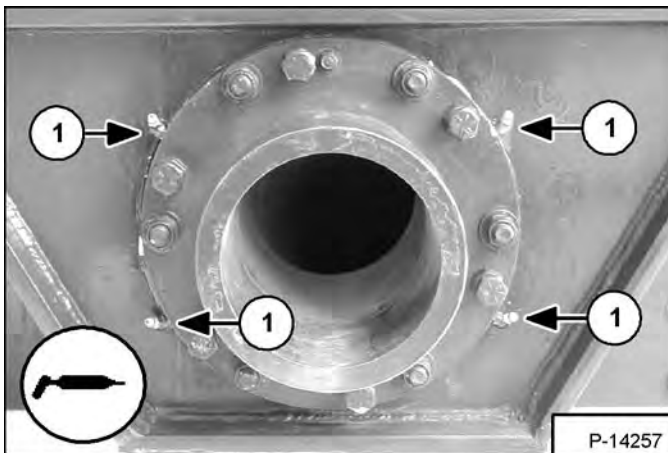
IMPORTANT

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

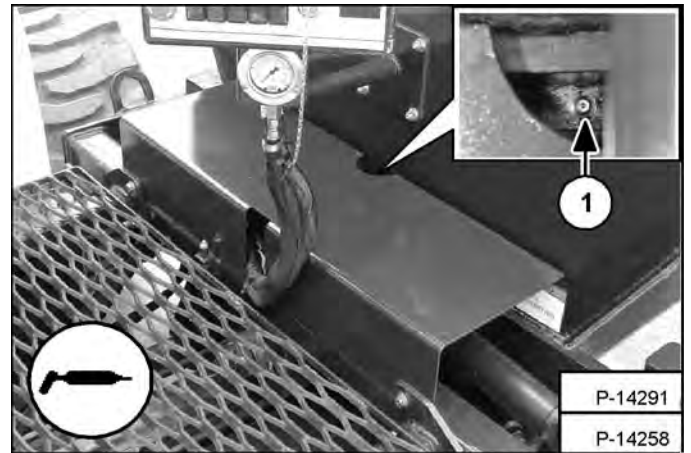
Lubrication of the Concrete Pump is very important to keep concrete mix out of the wear areas. Lubricate the following five grease fittings **AFTER EVERY USE**:

Figure 10-30-1



1. Outlet Housing (Item 1) [Figure 10-30-1].

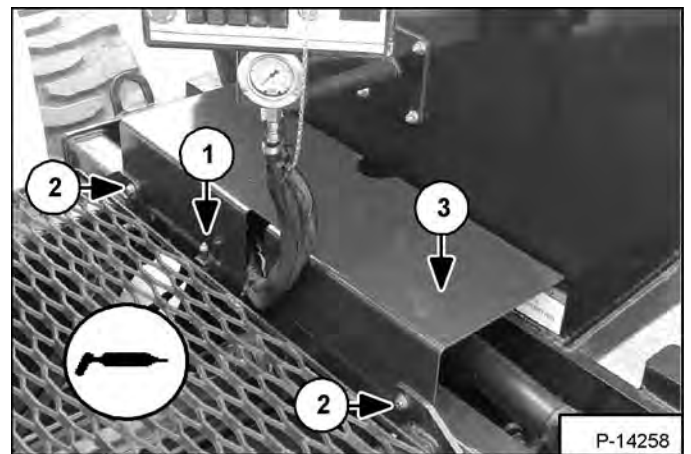
Figure 10-30-2



2. Crank Arm Bushing (Item 1) [Figure 10-30-2].

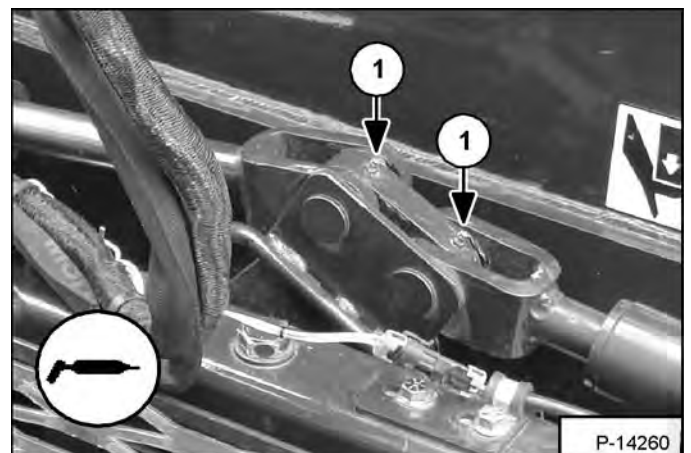
Lubricate the following three grease fittings **EVERY 40 HOURS**:

Figure 10-30-3



3. Crank Arm Bearing (Item 1) [Figure 10-30-3].

Figure 10-30-4



4. Loosen the two bolts (Item 2) [Figure 10-30-3] and remove the guard (Item 3) [Figure 10-30-3] to access and lubricate the Crank Arm (Item 1) [Figure 10-30-4].



Bobcat®

Dear

**Thanks very much for your visiting and
patience.**

Want to get more information,

Please click here, Go back to the page.

**After your payment, you will have instant access to
your download.**

The Download Link will also be sent to your e-mail.

You will get the complete manual

Have any questions

please write to me

admin@servicemanualperfect.com