

Product: 2009 Bobcat Stump Grinder SG30/SG60/SGX60 Service Repair Workshop Manual(SG30 S/N 005600101 & Above,SG60 S/N 233000101 & Above,SGX60 S/N A00700101 & Above)

Stump Grinder

SG30
SG60
SGX60



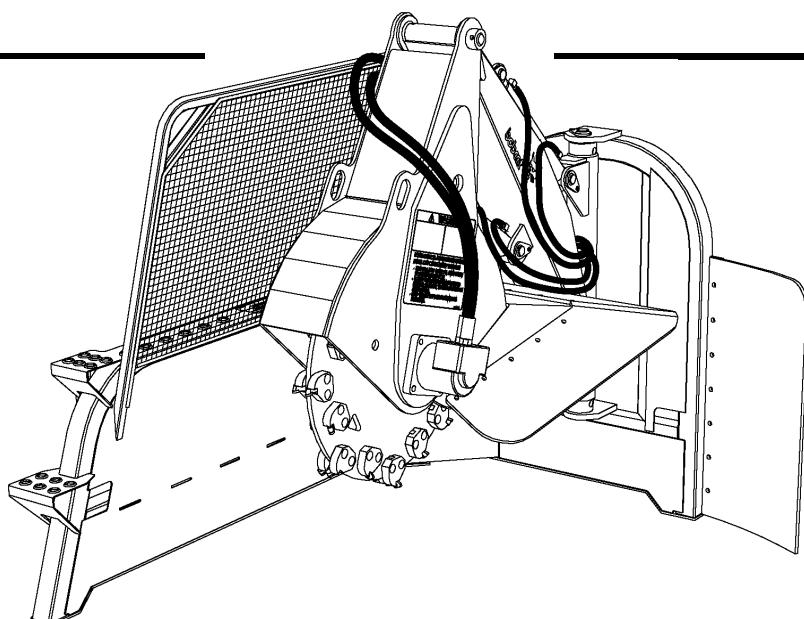
Bobcat®

Service Manual

(SG30) S/N 005600101 & Above

(SG60) S/N 233000101 & Above

(SGX60) S/N A00700101 & Above



Sample of manual. Download All 238 pages at:

<https://www.arepairmanual.com/downloads/2009-bobcat-stump-grinder-sg30-sg60-sgx60-service-repair-workshop-manualsg30-sg60-sgx60-s-n-233000101-above-s-n-a00700101-above/>

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MAINTENANCE SAFETY



WARNING

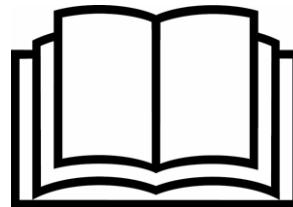
Instructions are necessary before operating or servicing machine. Read and understand the Operation & Maintenance Manual, Operator's Handbook and signs (decals) on machine. Follow warnings and instructions in the manuals when making repairs, adjustments or servicing. Check for correct function after 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.

CORRECT



P-90216

- ⚠ 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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**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 Stump Grinder 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

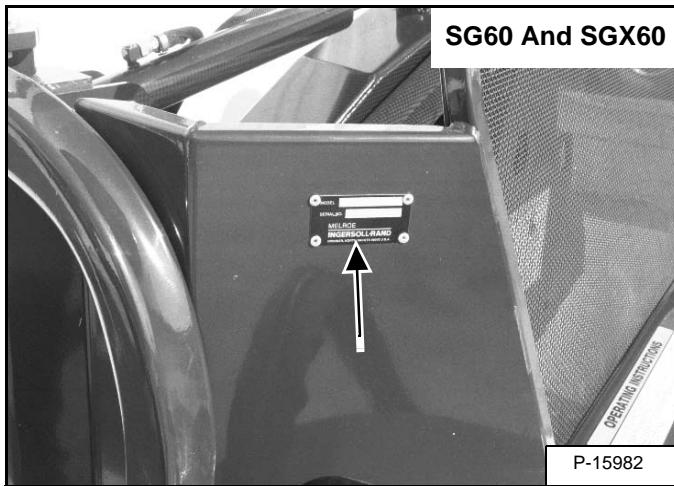
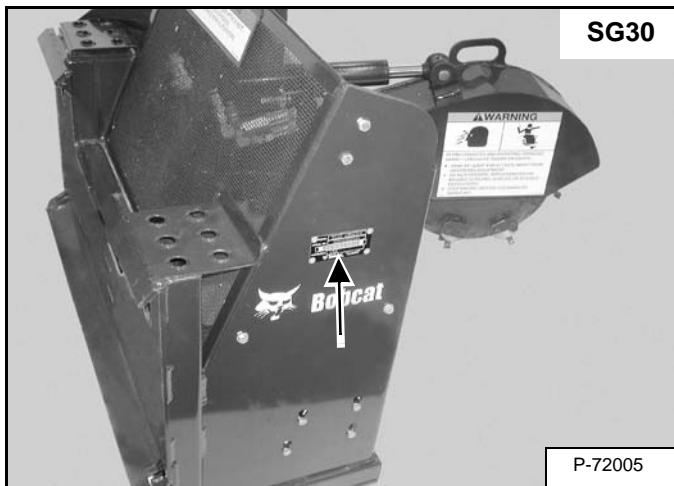
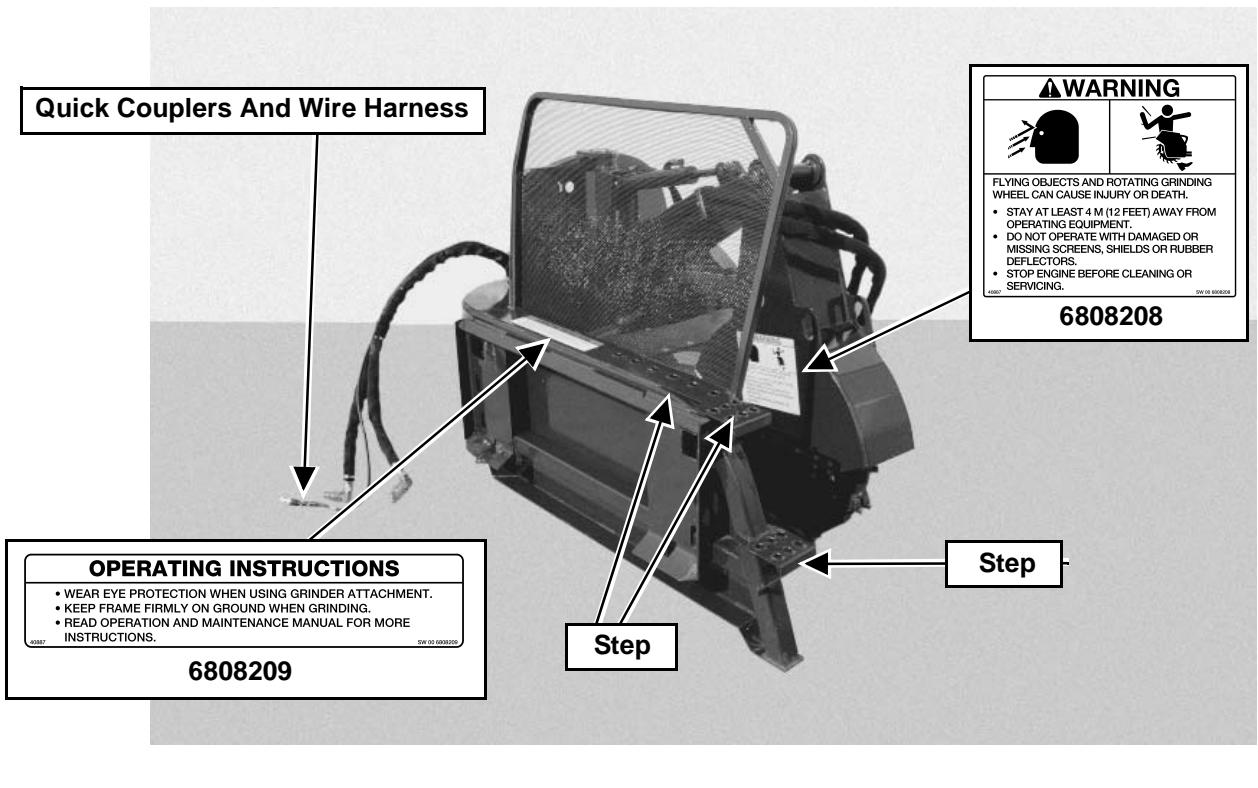
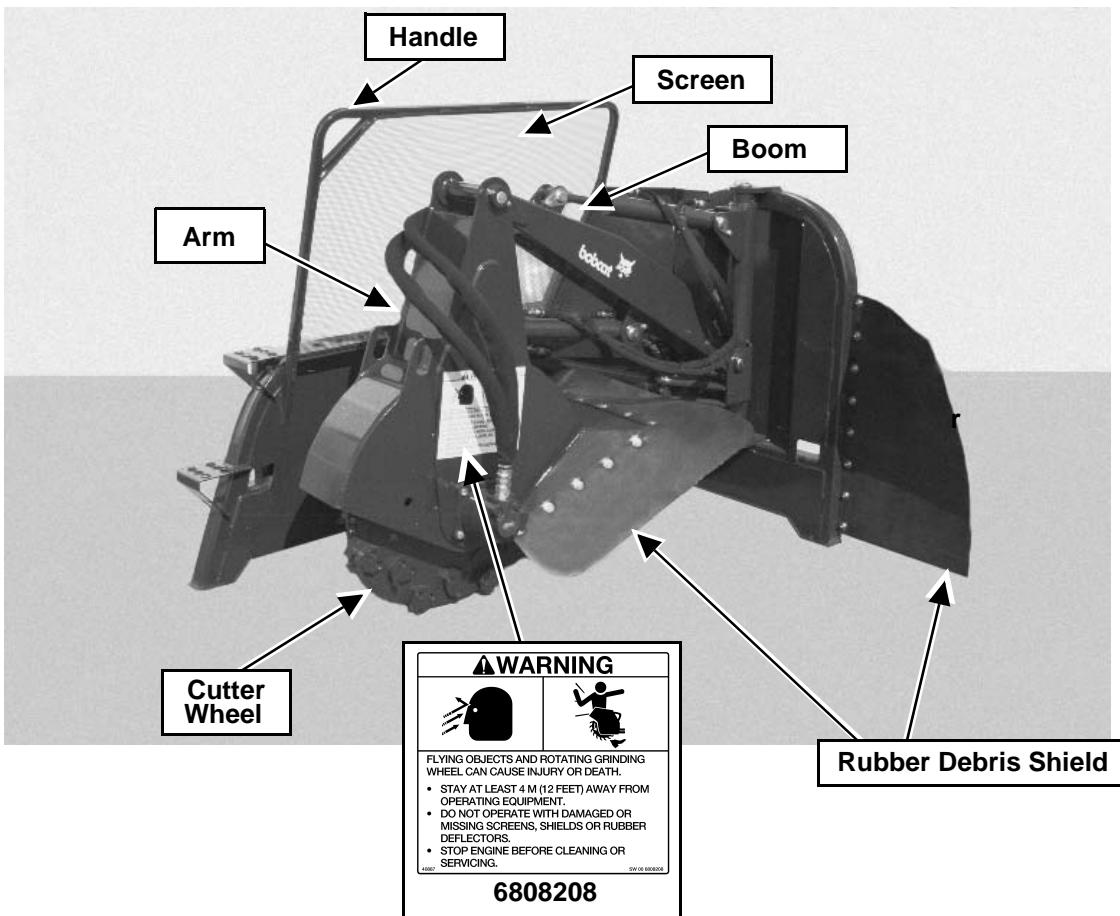


Figure 2

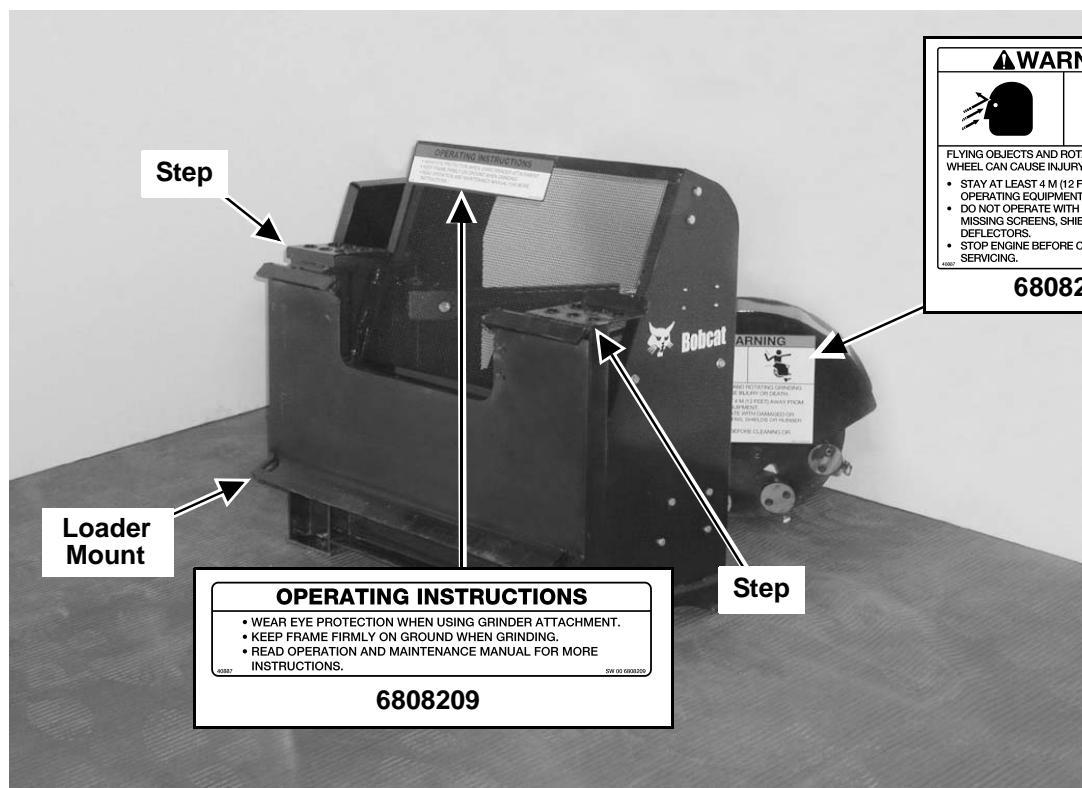
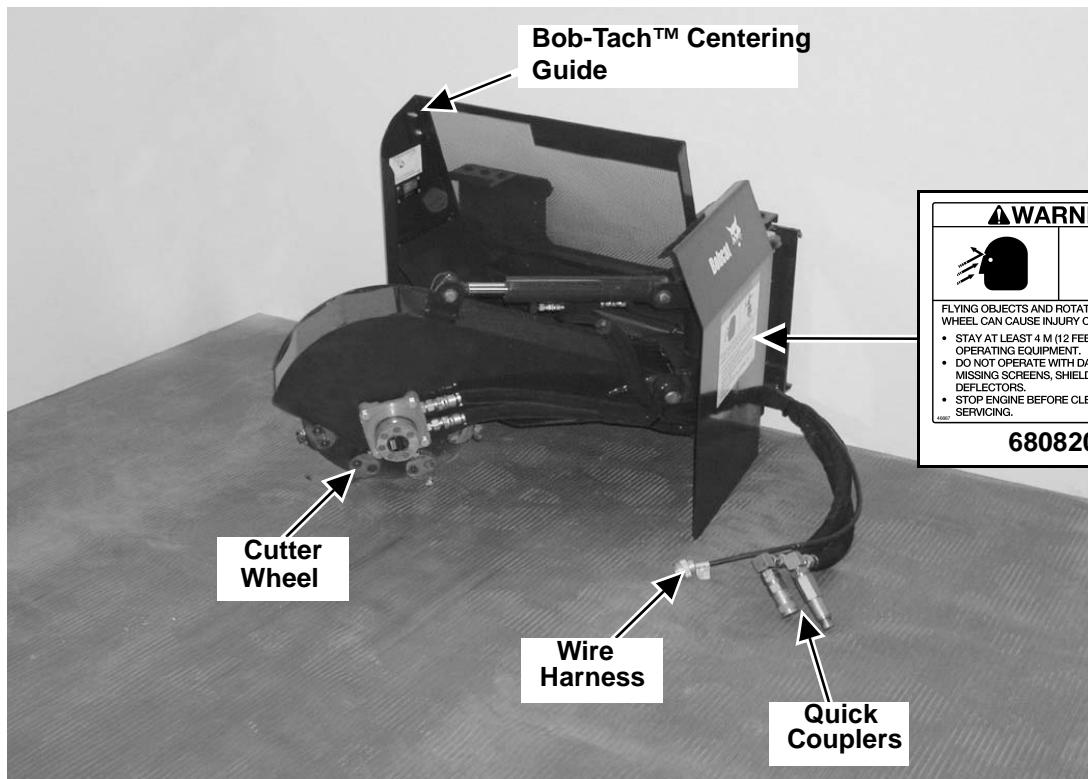


PARTS IDENTIFICATION (SG60 AND SGX60)



P-15984
P-15981

PARTS IDENTIFICATION (SG30)





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SAFETY AND MAINTENANCE

SAFETY AND MAINTENANCE

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TROUBLESHOOTING

PROBLEM	CAUSE	CORRECTION
Stump Grinder cut is inadequate.	Cutting teeth worn or missing.	Replace the cutting teeth.
Noisy motor (with load).	Vibration; loose bolts.	Check torque.
Noisy motor (with no load).	Humming; worn bearings.	Replace bearings.
External oil leaks.	Motor case pressure too high.	Check the quick couplers.
	Damaged O-rings.	Replace O-rings as needed.
Loaded motor does not turn at normal speed.	Not enough hydraulic flow.	Check pump flow and rotation speed.
	Internal leaks.	Check cylinders and valve block assembly. Check motor.
Cutter motor does not rotate.	Front auxiliary hydraulics not engaged.	Engage the loader front auxiliary.
	Couplers are reversed.	Switch couplers.
	Excessive hydraulic leakage.	Check hoses and valve block.
	Hydraulic leaks.	Check cylinders and valve block assembly. Check pump drive and pump inlet.
	No hydraulic flow.	Check valves for damage or corrosion.
Cutter wheel hops.	Cutting teeth worn or missing.	Replace the cutting teeth.
	Cutting teeth setting wrong.	Reset cutting teeth.
Cutter wheel stalls	Relief valve for boom swing cylinder set too high.	Replace relief valve.
	Cutting depth too deep.	Raise boom.
	Plug orifice blocked.	Check hydraulic lines and valve.
Swing cylinder stalls	Relief pressure set too low.	Replace relief valve.
Relief valve chatters	Relief pressure set too low.	Replace relief valve.



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INSPECTION

Hand Lever Bob-Tach Inspection

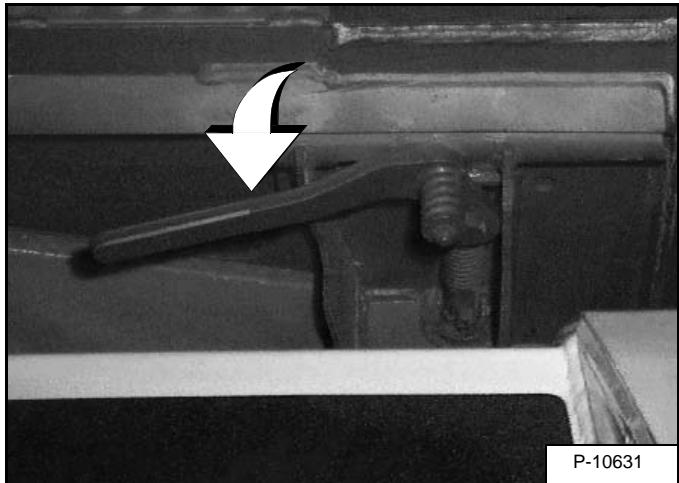


WARNING

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 10-20-1

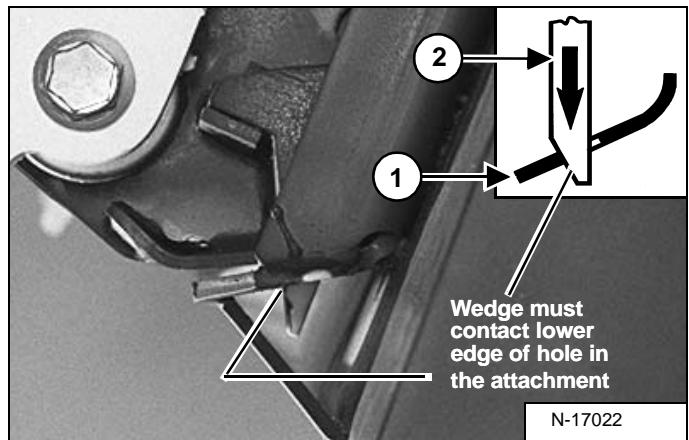


P-10631

Move the Bob-Tach™ levers down to engage the wedges [Figure 10-20-1].

The levers and wedges must move freely.

Figure 10-20-2

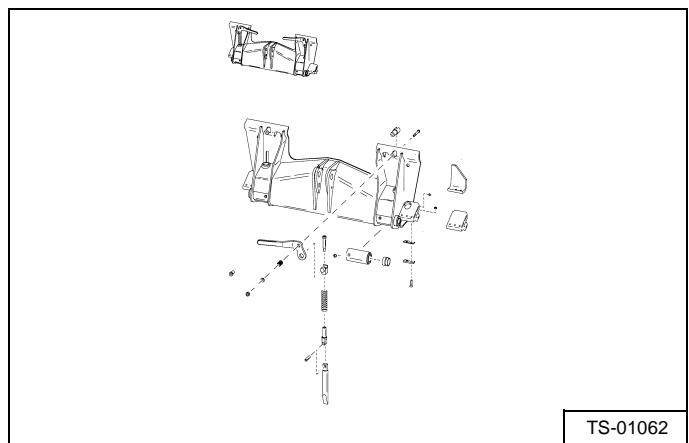


The wedges must extend through the holes in the attachment mounting frame (Item 1) [Figure 10-20-2].

The spring loaded wedge (Item 2) must contact the lower edge of the hole in the attachment (Item 2) [Figure 10-20-2].

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 10-20-3



Inspect the mounting frame on the attachment and the Bob-Tach, linkages and wedges for excessive wear or damage. Replace any parts that are damaged, bent, or missing [Figure 10-20-3].

NOTE: 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 MACHINE*.)

INSPECTION (CONT'D)

Power Bob-Tach Inspection

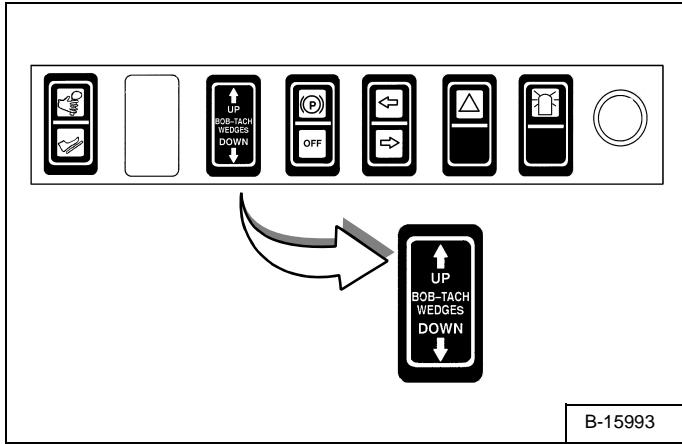


WARNING

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 10-20-4

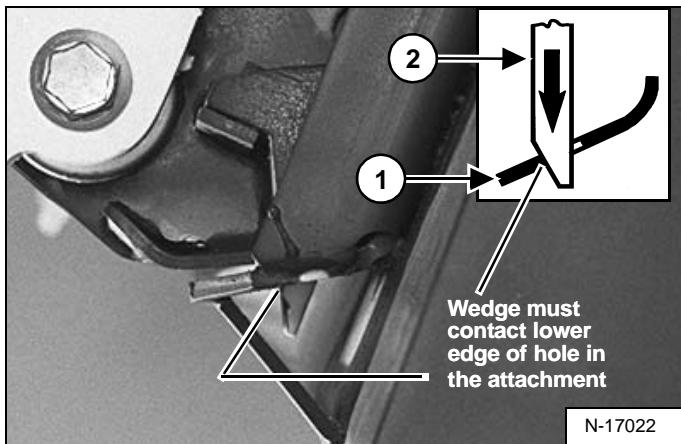


Push and hold the *BOB-TACH WEDGES UP* switch until wedges are fully raised. Push and hold the *BOB-TACH WEDGES DOWN* switch until the wedges are fully down [Figure 10-20-4].

The wedges must move freely.

NOTE: The Power Bob-Tach system has continuous pressurized oil to keep the wedges in the engaged position and prevent attachment disengagement. Because the wedges can slowly lower, the operator may need to reactivate the switch (WEDGES UP) before installing an attachment to be sure both wedges are fully raised before installing the attachment.

Figure 10-20-5

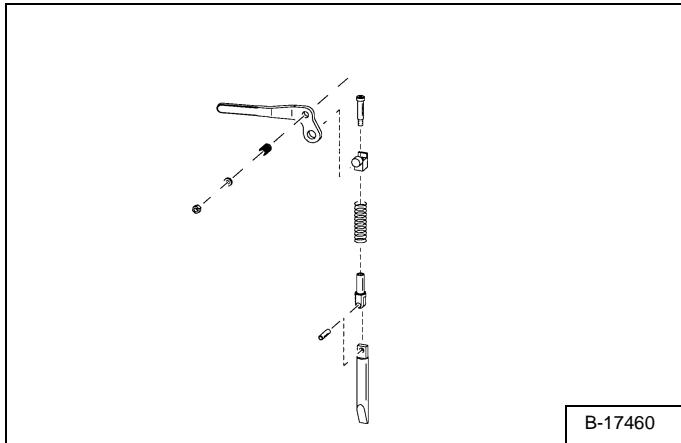


The wedges must extend through the holes in the attachment mounting frame (Item 1) [Figure 10-20-5].

The spring loaded wedge (Item 2) must contact the lower edge of the hole in the attachment (Item 2) [Figure 10-20-5].

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 10-20-5].

Figure 10-20-6



Inspect the mounting frame on the attachment and the Bob-Tach, linkages and wedges for excessive wear or damage. Replace any parts that are damaged, bent, or missing. Keep all fasteners tight. Inspect the hoses and fittings for leaks [Figure 10-20-6].

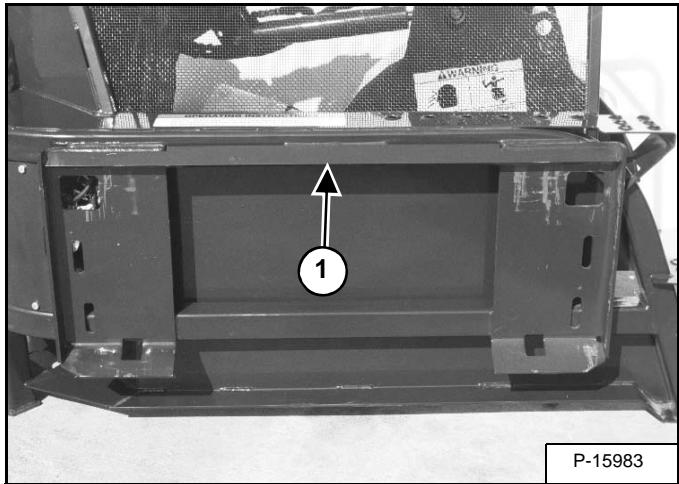
Look for cracked welds. Contact your Bobcat dealer for repair or replacement parts.

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

INSPECTION (CONT'D)

Stump Grinder Mount Inspection (SG60 And SGX60)

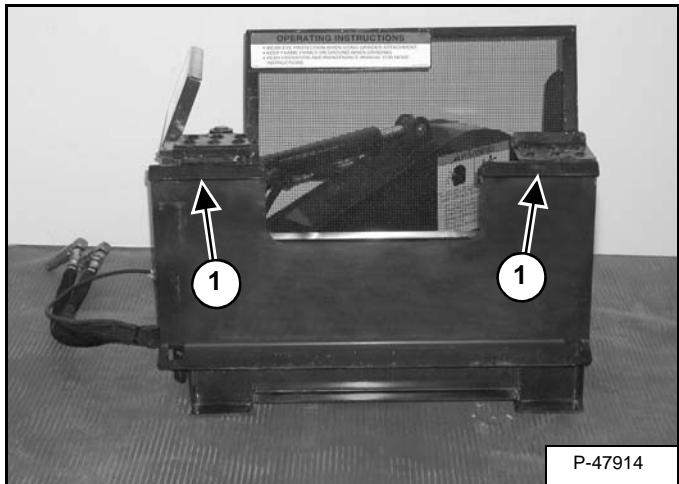
Figure 10-20-7



Inspect the mounting flange (Item 1) [Figure 10-20-7] and all welds on the mount for wear and damage each time the stump grinder is removed from the loader.

Stump Grinder Mount Inspection (SG30)

Figure 10-20-8



Inspect the mounting flange (Item 1) [Figure 10-20-8] and all welds on the mount for wear and damage each time the stump grinder is removed from the loader.

Daily Inspection (SG60 And SGX60)

Figure 10-20-9

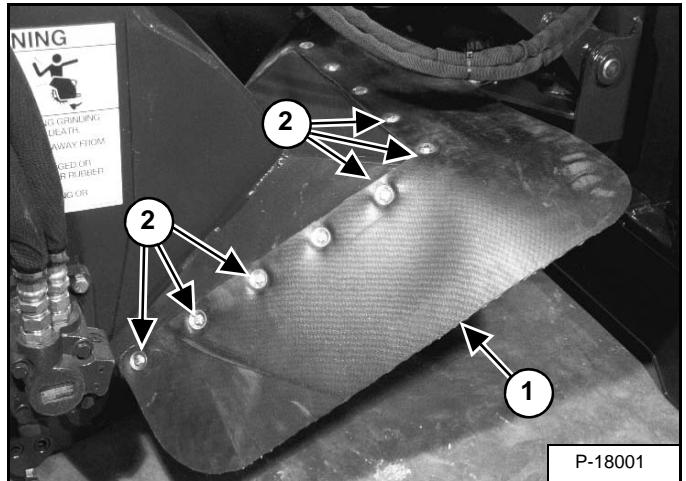
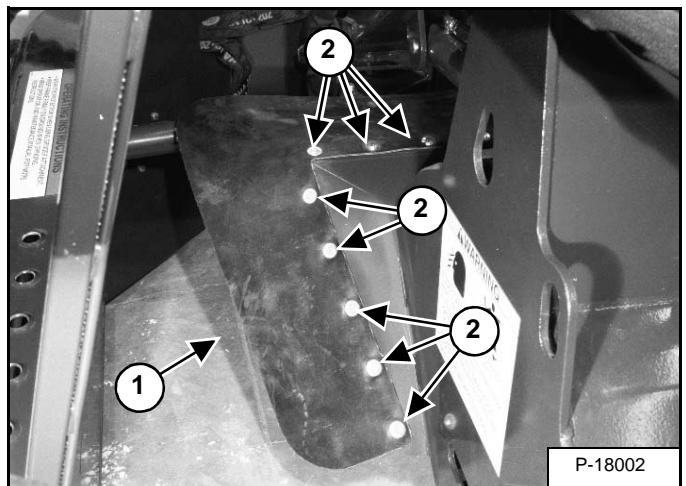


Figure 10-20-10



Inspect the cutter wheel rubber debris shield (Item 1) [Figure 10-20-9] & [Figure 10-20-10].

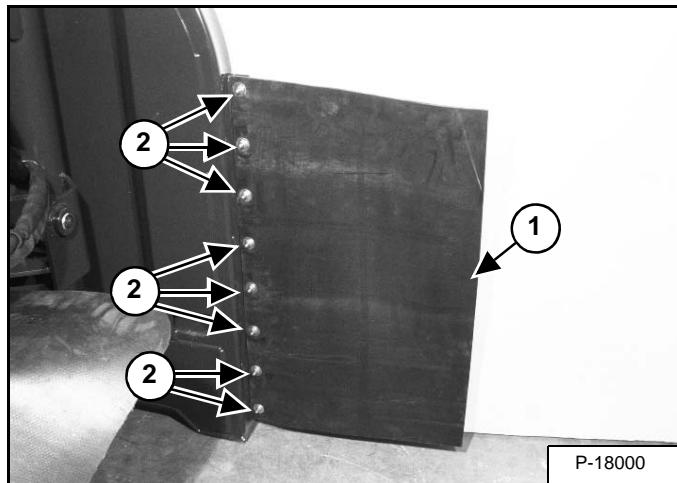
Replace the shield when damaged or worn by removing the fifteen bolts, washers and nuts (Item 2) [Figure 10-20-9] & [Figure 10-20-10].

Installation: Tighten the bolts to 80 - 90 in.-lb. (9 - 10 N·m) torque.

INSPECTION (CONT'D)

Daily Inspection (SG60 And SGX60) (Cont'd)

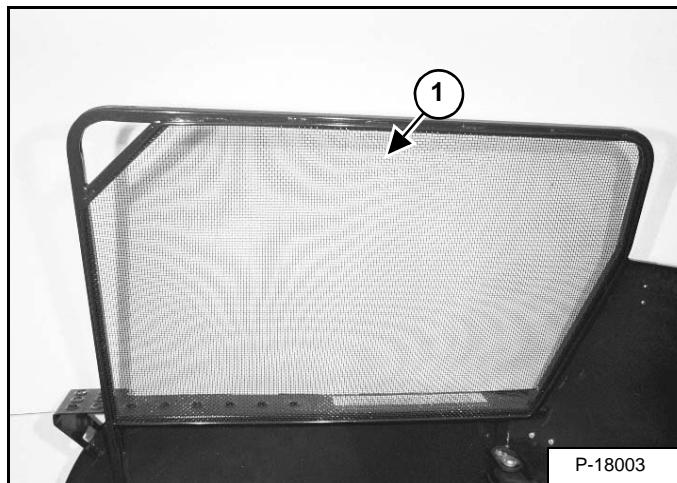
Figure 10-20-11



Inspect the side rubber debris shield (Item 1). Replace the shield when damaged or worn by removing the eight bolts, washers and nuts (Item 2) [Figure 10-20-11].

Installation: Tighten the bolts to 80 - 90 in.-lb. (9 - 10 N·m) torque.

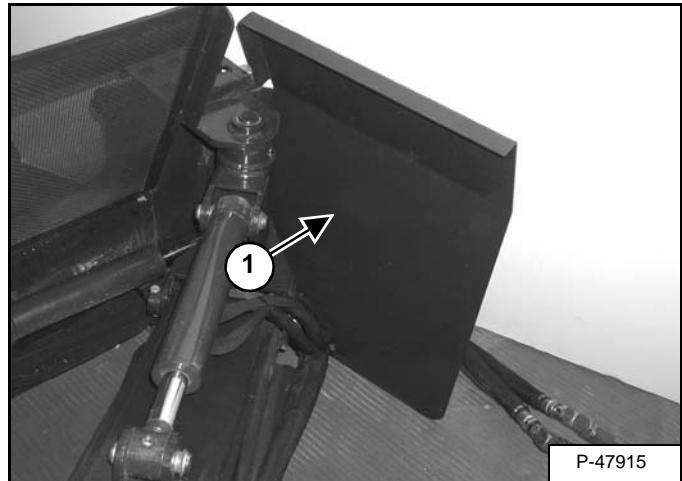
Figure 10-20-12



Inspect the screen (Item 1) [Figure 10-20-12].

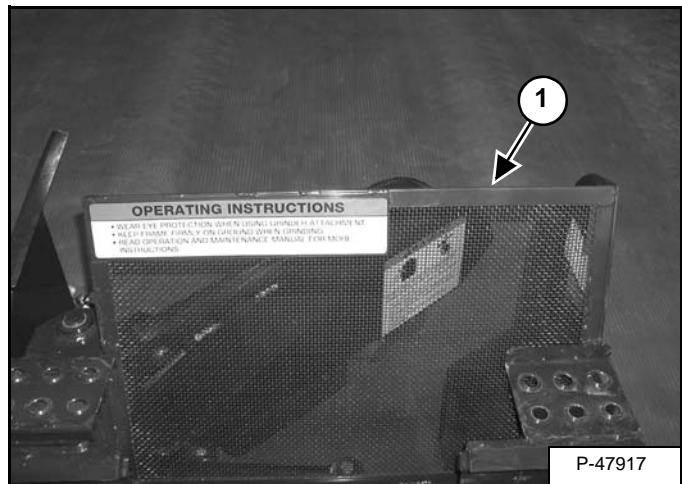
Daily Inspection (SG30)

Figure 10-20-13



Inspect the debris shield (Item 1) [Figure 10-20-13].

Figure 10-20-14

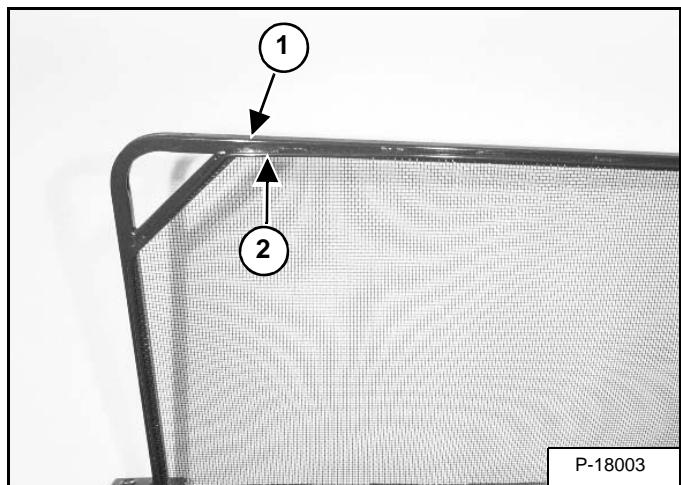


Inspect the screen (Item 1) [Figure 10-20-14] for damage.

INSPECTION (CONT'D)

Screen Replacement (SG60 And SGX60)

Figure 10-20-15



If the screen is damaged, cut the welds (Item 1) and remove the attaching rod (Item 2) [Figure 10-20-15].

Remove the screen. Grind the welds off the frame. Weld a new screen and attaching rod on the support frame. Paint the welds to prevent corrosion.



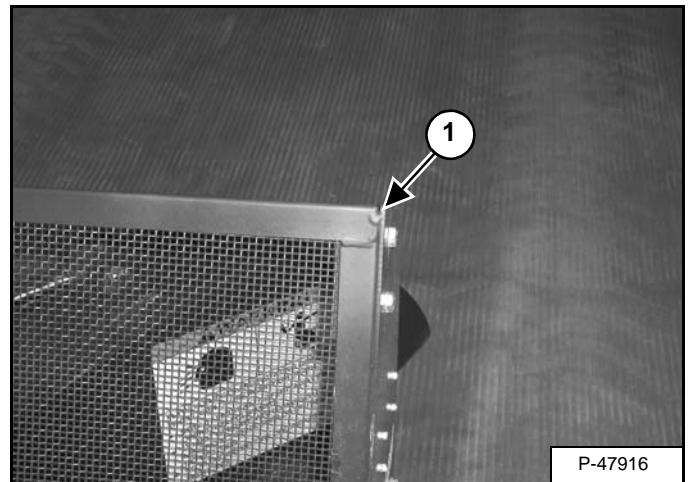
WARNING

Eye and body protection is required when welding or grinding. Wear approved goggles, helmet and clothing. Failure to wear eye and body protection can result in serious injury.

W-2009-1285

Screen Replacement (SG30)

Figure 10-20-16



If the screen is damaged, cut the welds (Item 1) [Figure 10-20-16] (both sides on top) and remove the screen from the stump grinder. Grind any remaining welds off the frame. Position the new screen and weld the new screen in the same locations as originally welded. Paint the welds to prevent corrosion.



WARNING

Eye and body protection is required when welding or grinding. Wear approved goggles, helmet and clothing. Failure to wear eye and body protection can result in serious injury.

W-2009-1285



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LUBRICATION (SG60 AND SGX60)

Lubrication Points

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

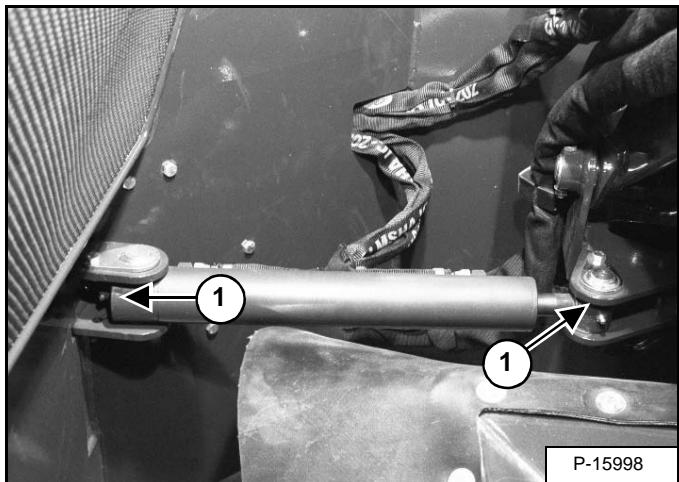
IMPORTANT

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

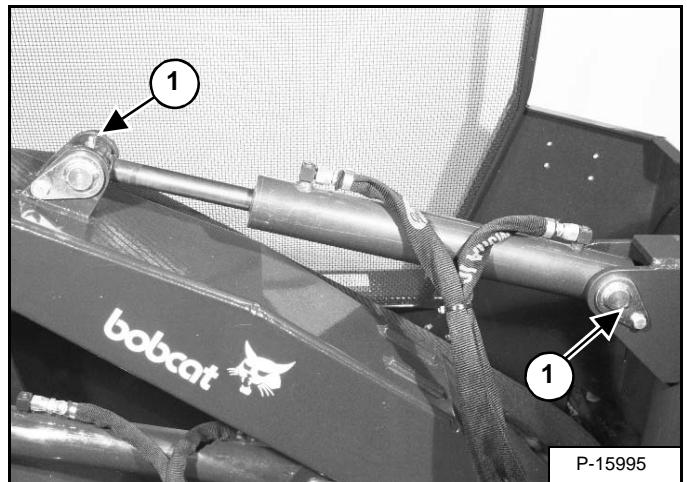
Lubricate the following grease fittings every 8-10 hours.

Figure 10-30-1



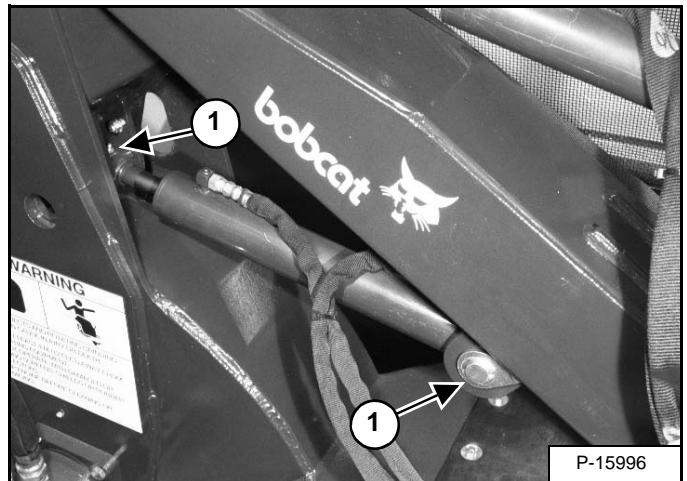
Boom swing cylinder base and rod end (Item 1) [Figure 10-30-1].

Figure 10-30-2



Boom cylinder base and rod end (Item 1) [Figure 10-30-2].

Figure 10-30-3

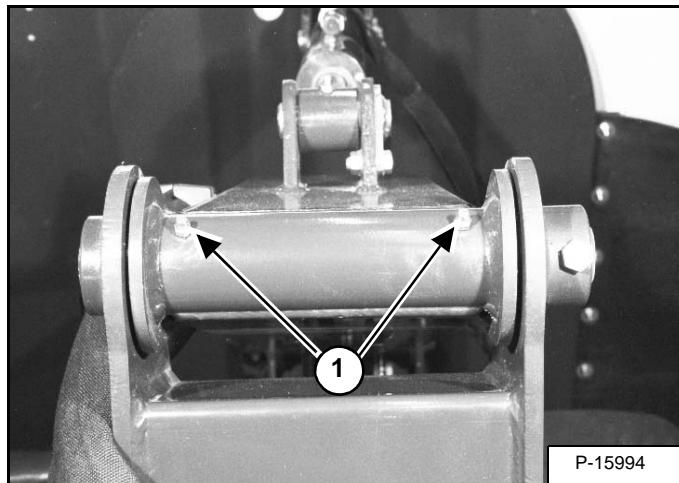


Arm cylinder base and rod end (Item 1) [Figure 10-30-3].

LUBRICATION (SG60 AND SGX60) (CONT'D)

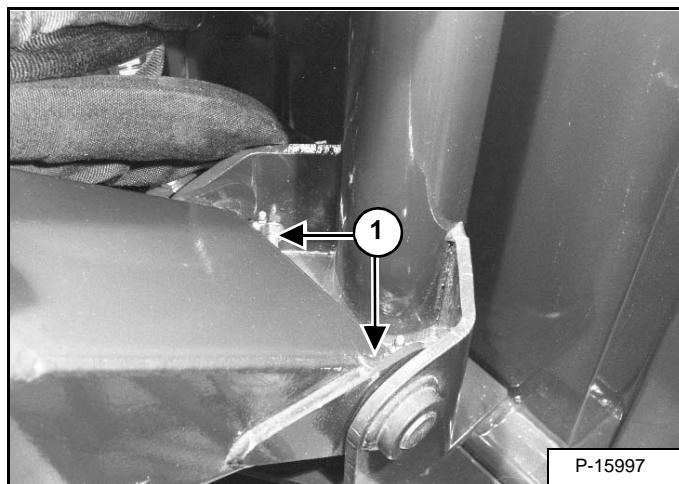
Lubrication Points (Cont'd)

Figure 10-30-4



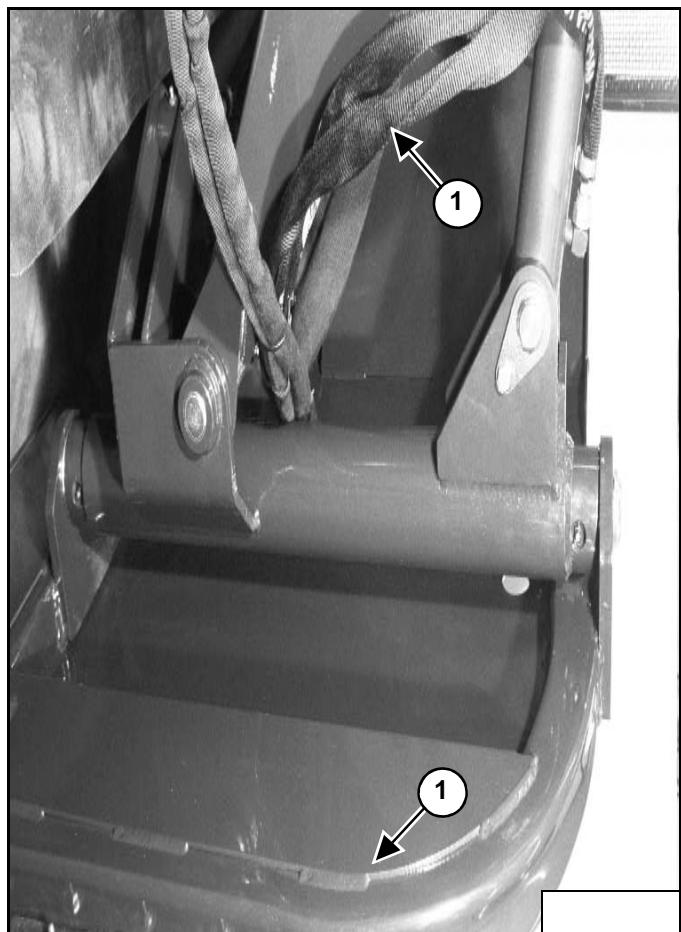
Arm pivot points (Item 1) [Figure 10-30-4].

Figure 10-30-5



Boom pivot point (Item 1) [Figure 10-30-5].

Figure 10-30-6



Boom swing pivot points (Item 1) [Figure 10-30-6].

LUBRICATION (SG30)

Lubrication Points

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

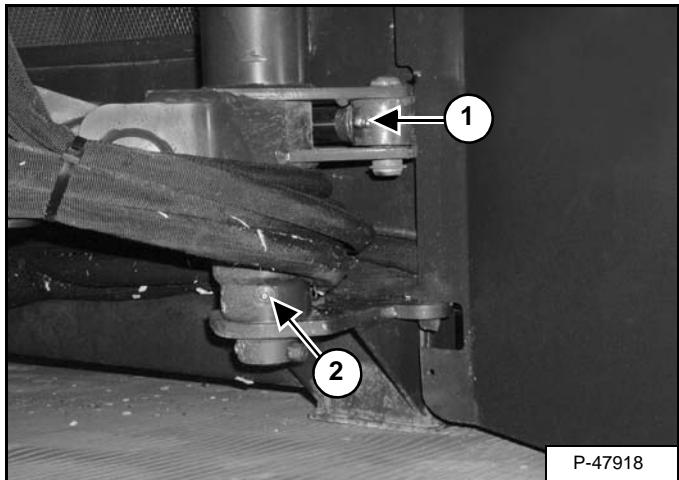
IMPORTANT

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

Lubricate the following grease fittings every **8-10 hours**.

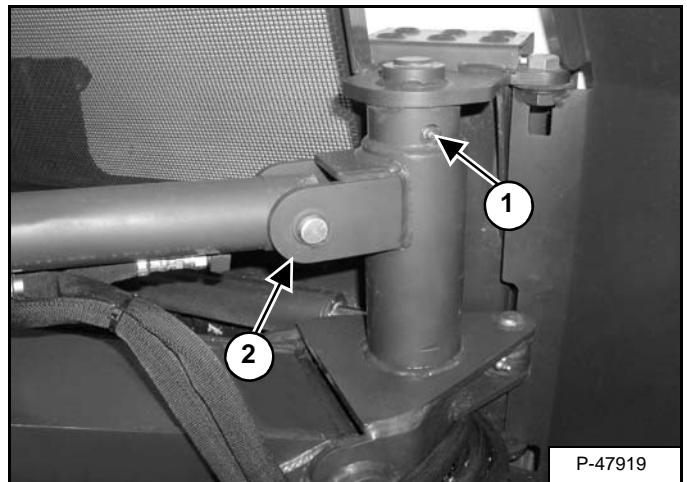
Figure 10-31-1



Boom swing cylinder rod end (Item 1) [Figure 10-31-1].

Boom swing lower pivot (Item 2) [Figure 10-31-1].

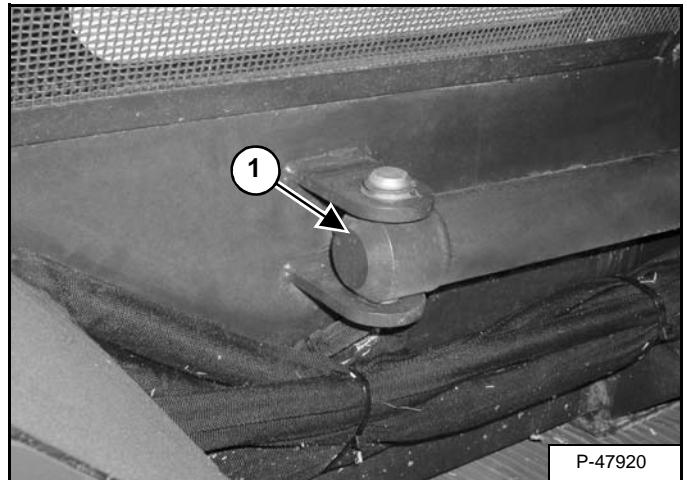
Figure 10-31-2



Boom swing upper pivot (Item 1) [Figure 10-31-2].

Boom cylinder base end (Item 2) [Figure 10-31-2].

Figure 10-31-3

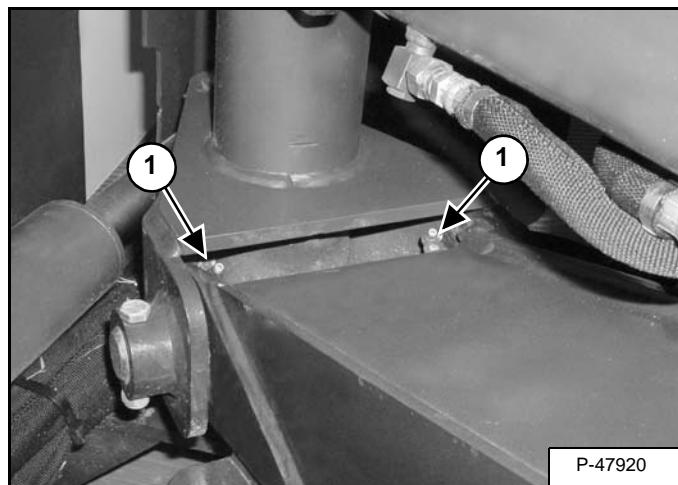


Boom swing cylinder base end (Item 1) [Figure 10-31-3].

LUBRICATION (SG30) (CONT'D)

Lubrication Points (Cont'd)

Figure 10-31-4



Boom pivot point (Item 1) [Figure 10-31-4].

CUTTING TEETH (SG60 AND SGX60)

Removal And Installation

Stop the engine and engage the parking brake.

Unfasten the seat belt, raise the seat bar and exit the loader.

Disconnect the auxiliary hydraulic hoses at the loader couplers.



WARNING

AVOID INJURY OR DEATH

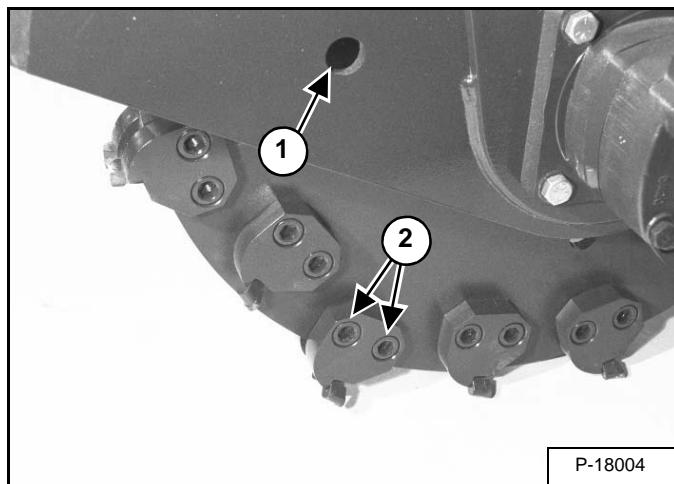
Before you leave the operator's seat:

- Lower the lift arms and put the attachment flat on the ground.
- Stop the engine.
- Engage the parking brake.
- Raise the seat bar.
- Move all controls to the NEUTRAL / LOCKED position to make sure the lift, tilt and travel functions are deactivated.

The seat bar system must deactivate these functions when the seat bar is up. Service the system if controls do not deactivate.

W-2463-0909

Figure 10-40-1



Install a bar through the hole in the frame (Item 1) [Figure 10-40-1] and through the hole in the cutter wheel to prevent the wheel from turning.

Remove the two bolts (Item 2) [Figure 10-40-1]. (The standard tooth is shown in photo.)

The procedure is the same for both types of teeth except as noted below.

Installation: Standard Teeth; tighten the bolts to 175 ft.-lb. (237 N•m) torque.

Installation: Optional Teeth; tighten the bolts to 130- 140 ft.-lb. (176 - 190 N•m) torque.

NOTE: Thoroughly clean the side and front surface of the cutter wheel of all debris before installing new teeth. The teeth must fit flush to the cutter wheel surface with no obstructions.

CUTTING TEETH (SG60 AND SGX60) (CONT'D)

Removal And Installation (Cont'd)

Figure 10-40-2

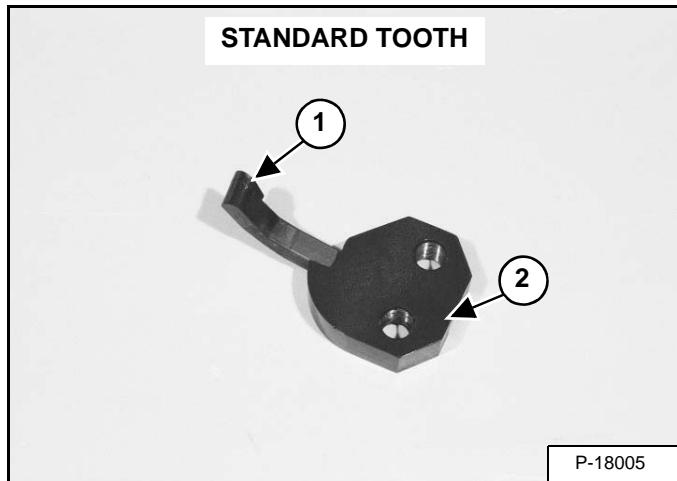


Figure 10-40-4

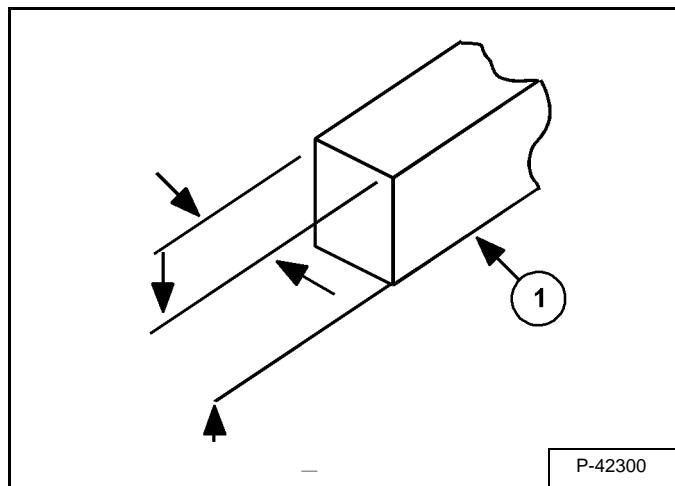
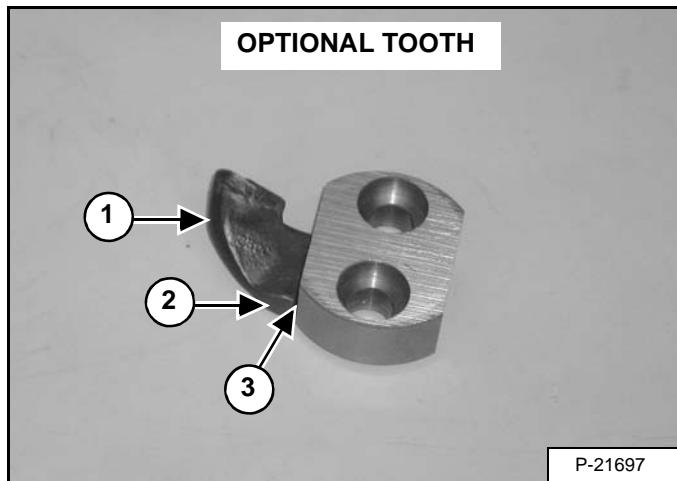


Figure 10-40-3



Remove the tooth (Item 1) from the holder [Figure 10-40-2] or [Figure 10-40-3].

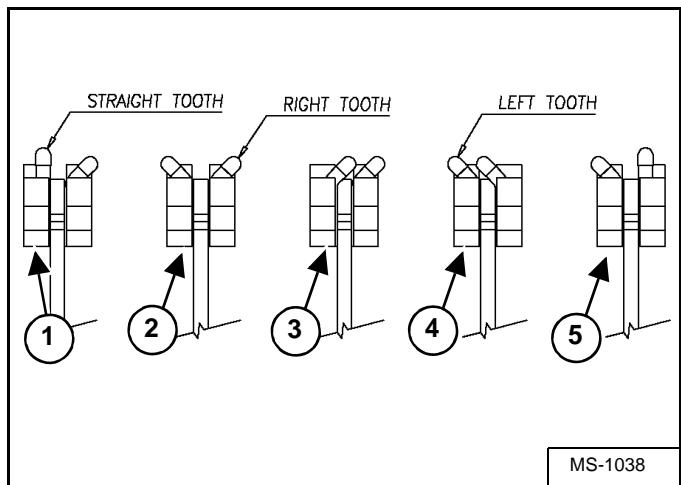
Installation: Standard Teeth; install the tooth (Item 1) so the end of the tooth shank is flush with the end of the holder (Item 2) [Figure 10-40-2].

Installation: Optional Teeth; install the tooth (Item 1) so the tooth shoulder (Item 2) contacts the face of the tooth holder (Item 3) [Figure 10-40-3].

CUTTING TEETH (SG60 AND SGX60) (CONT'D)

Cutting Teeth Pattern

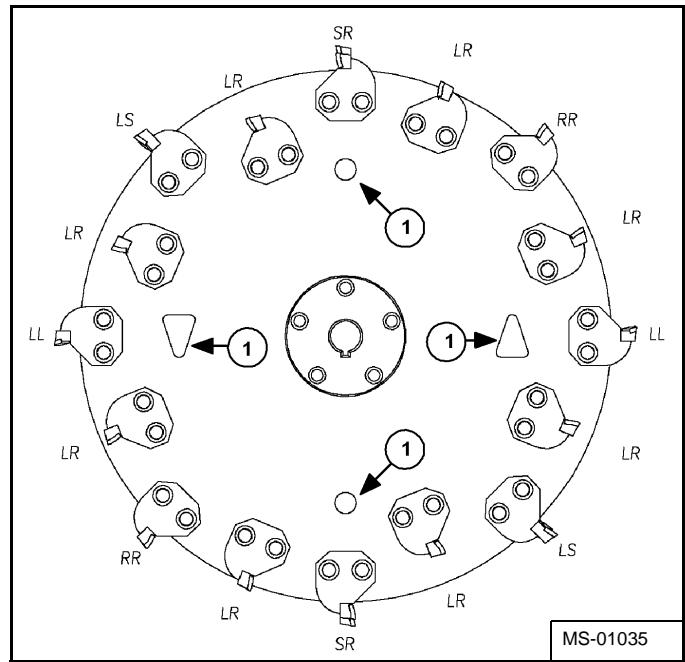
Figure 10-40-5



The cutting teeth are installed in a pattern of straight tooth/right tooth (Item 1), left tooth/right tooth (Item 2), right tooth/right tooth (Item 3) left tooth/left tooth (Item 4) and left tooth/straight tooth (Item 5) [Figure 10-40-5].

NOTE: The teeth are viewed from the cutting side of the tooth.

Figure 10-40-6



The tooth pattern is repeated twice around the cutting wheel. Start the tooth pattern at any of the locations shown (Item 1) **[Figure 10-40-6]**. (Example: The pattern is started at the 12 o'clock position and is repeated, starting at the 6 o'clock position.)



AVOID INJURY

DO NOT sharpen the carbide tips. DO NOT strike the carbide tips with a hammer, the carbide tips can break and hit you causing eye or bodily injury.

W-2189-0595

Product: 2009 Bobcat Stump Grinder SG30/SG60/SGX60 Service Repair Workshop Manual(SG30 S/N 005600101 & Above,SG60 S/N 005600101 & Above,SGX60 S/N 00700101 & Above)

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