



Bobcat®

Stump Grinder

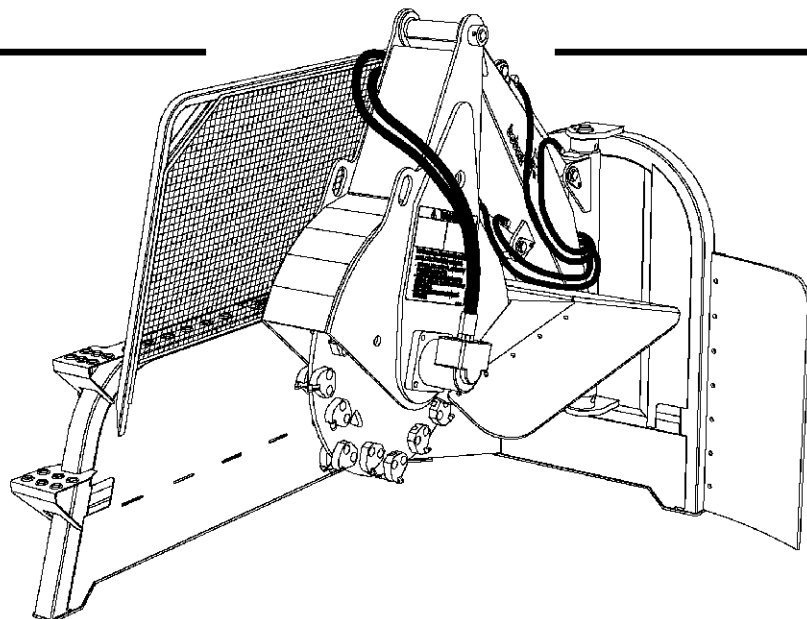
SG30
SG60
SGX60

Service Manual

(SG30) S/N 005600101 & Above

(SG60) S/N 233000101 & Above

(SGX60) S/N A00700101 & Above



MAINTENANCE SAFETY



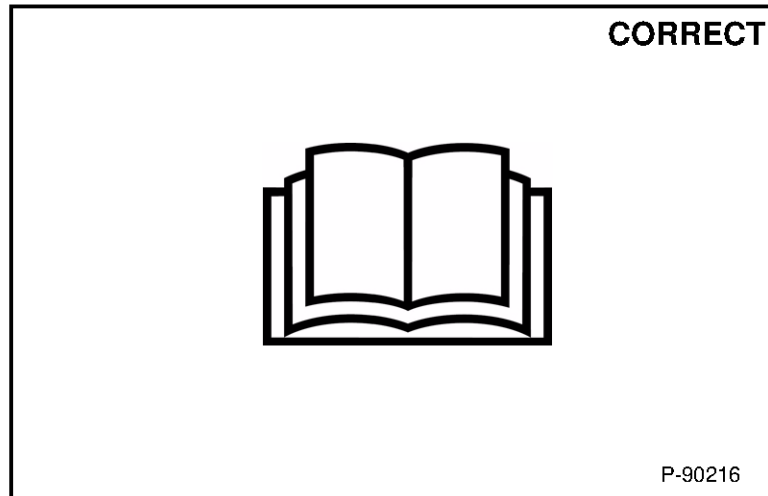
WARNING









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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**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

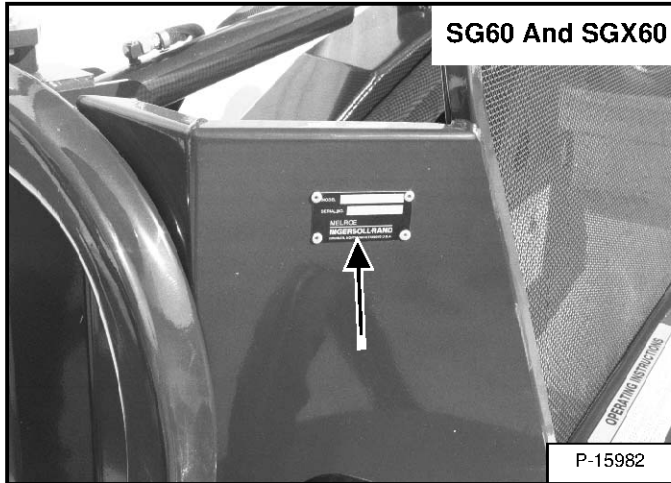
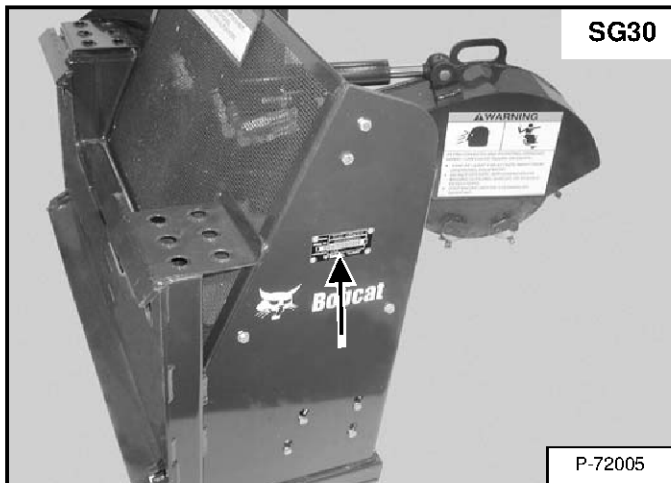
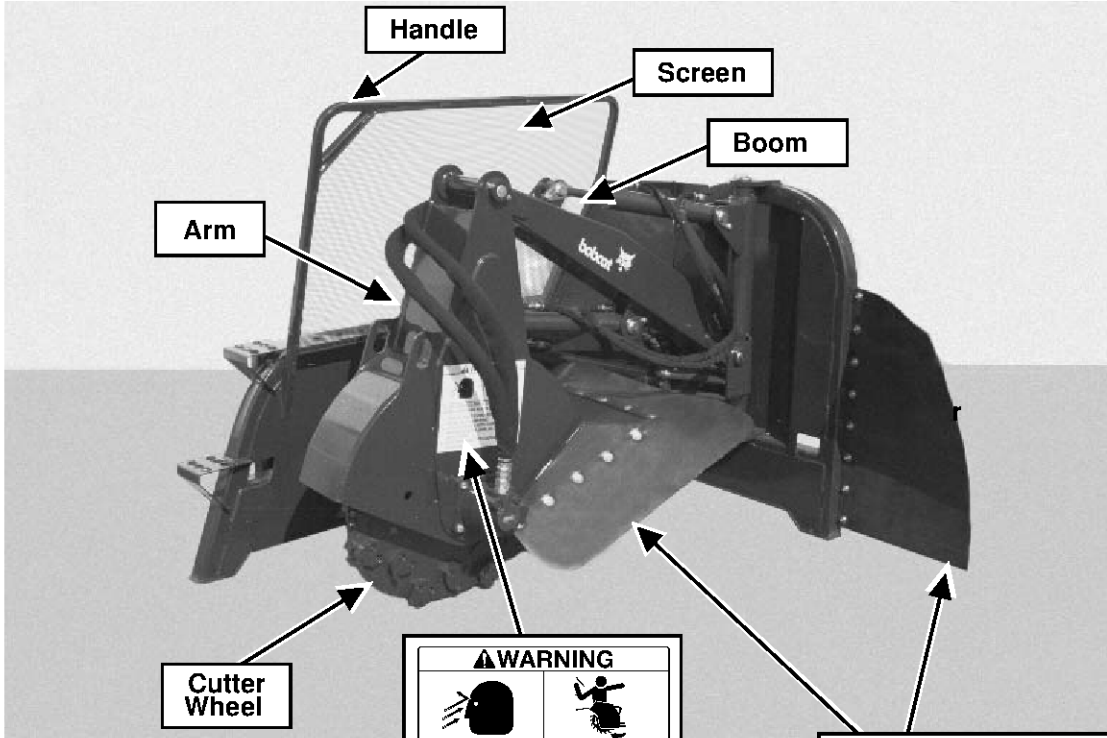


Figure 2



PARTS IDENTIFICATION (SG60 AND SGX60)



⚠ WARNING

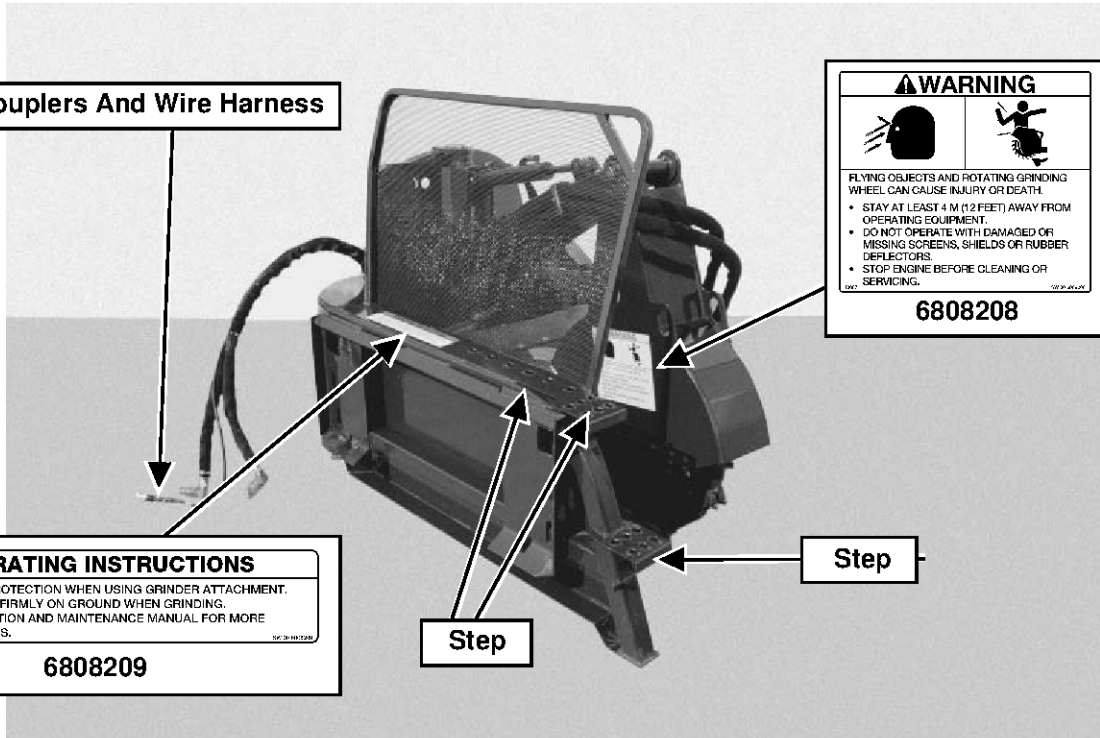
FLYING OBJECTS AND ROTATING GRINDING WHEEL CAN CAUSE INJURY OR DEATH.

- STAY AT LEAST 4 M (12 FEET) AWAY FROM OPERATING EQUIPMENT.
- DO NOT OPERATE WITH DAMAGED OR MISSING SCREENS, SHIELDS OR RUBBER DEFLECTORS.
- STOP ENGINE BEFORE CLEANING OR SERVICING.

6808208

Rubber Debris Shield

Quick Couplers And Wire Harness



⚠ WARNING

FLYING OBJECTS AND ROTATING GRINDING WHEEL CAN CAUSE INJURY OR DEATH.

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- STOP ENGINE BEFORE CLEANING OR SERVICING.

6808208

Step

Step

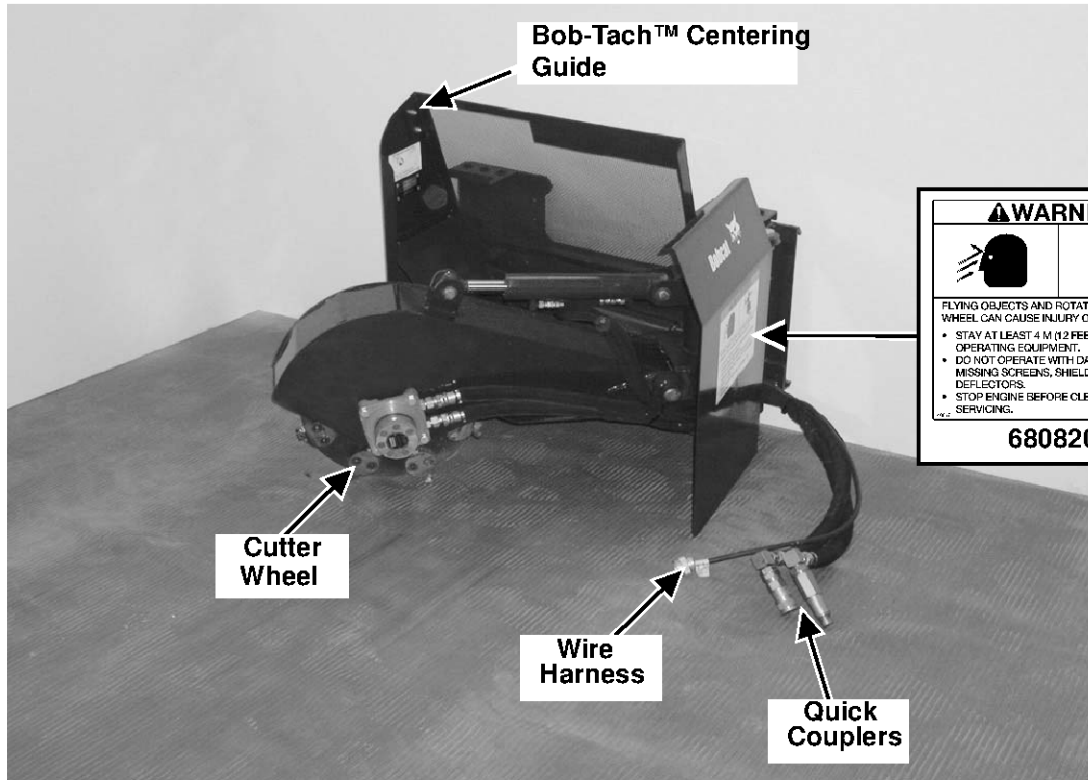
OPERATING INSTRUCTIONS

- WEAR EYE PROTECTION WHEN USING GRINDER ATTACHMENT.
- KEEP FRAME FIRMLY ON GROUND WHEN GRINDING.
- READ OPERATION AND MAINTENANCE MANUAL FOR MORE INSTRUCTIONS.

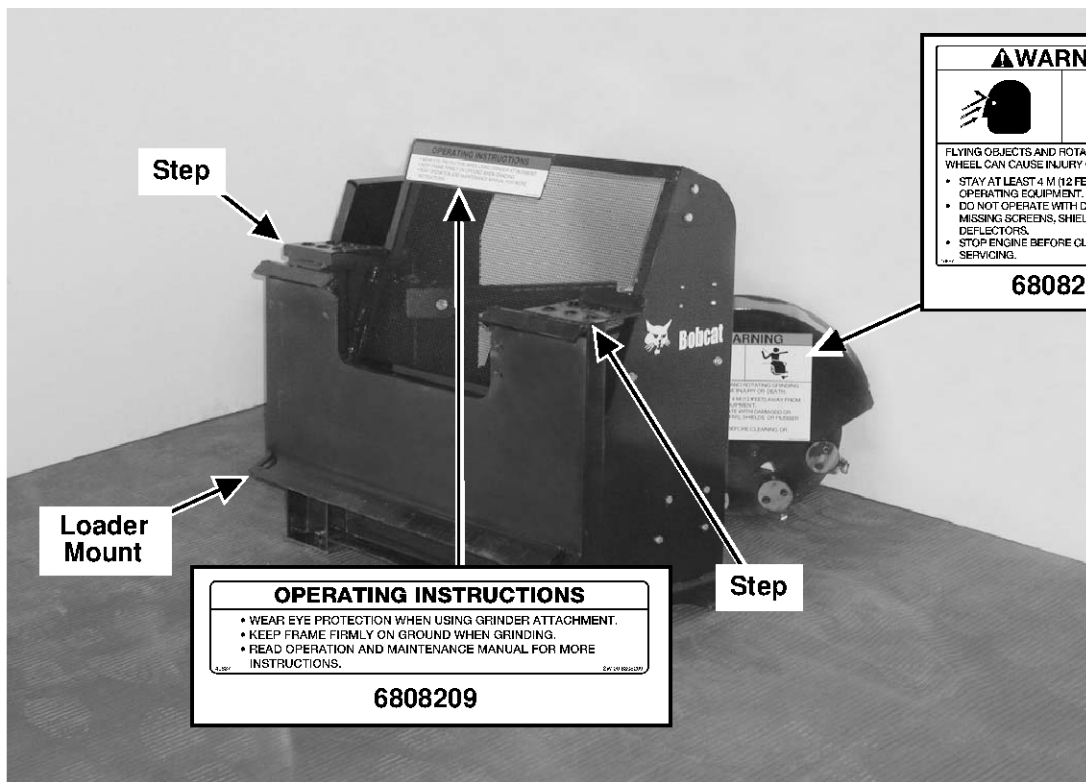
6808209

P-15984
P-15981

PARTS IDENTIFICATION (SG30)



⚠ WARNING	
<p>FLYING OBJECTS AND ROTATING GRINDING WHEEL CAN CAUSE INJURY OR DEATH.</p> <ul style="list-style-type: none"> • STAY AT LEAST 4 M (12 FEET) AWAY FROM OPERATING EQUIPMENT. • DO NOT OPERATE WITH DAMAGED OR MISSING SCREENS, SHIELDS OR RUBBER DEFLECTORS. • STOP ENGINE BEFORE CLEANING OR SERVICING. 	
6808208	



⚠ WARNING	
<p>FLYING OBJECTS AND ROTATING GRINDING WHEEL CAN CAUSE INJURY OR DEATH.</p> <ul style="list-style-type: none"> • STAY AT LEAST 4 M (12 FEET) AWAY FROM OPERATING EQUIPMENT. • DO NOT OPERATE WITH DAMAGED OR MISSING SCREENS, SHIELDS OR RUBBER DEFLECTORS. • STOP ENGINE BEFORE CLEANING OR SERVICING. 	
6808208	

OPERATING INSTRUCTIONS	
<ul style="list-style-type: none"> • WEAR EYE PROTECTION WHEN USING GRINDER ATTACHMENT. • KEEP FRAME FIRMLY ON GROUND WHEN GRINDING. • READ OPERATION AND MAINTENANCE MANUAL FOR MORE INSTRUCTIONS. 	
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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

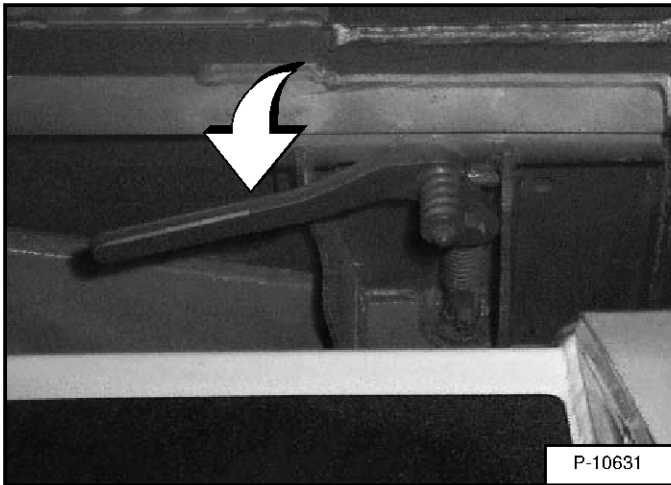
Hand Lever Bob-Tach Inspection

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

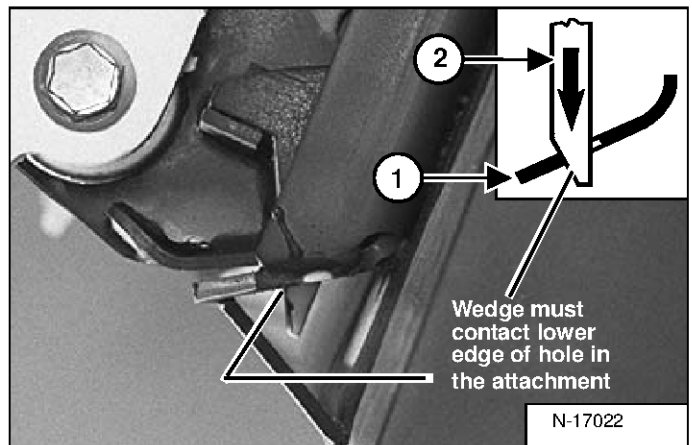
Figure 10-20-1



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

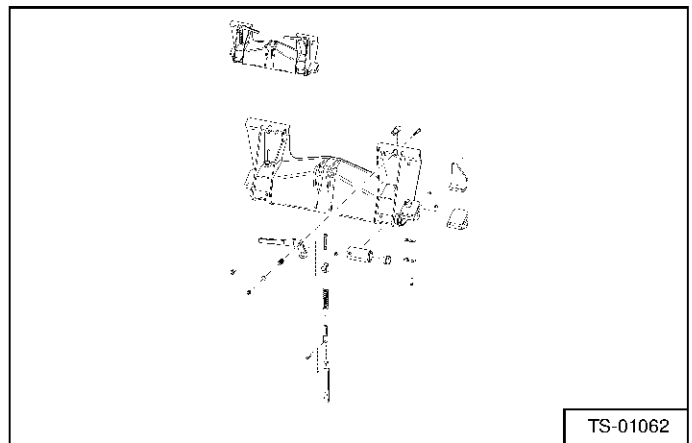


The wedges must extend through the holes in the attachment mounting frame (Item 1) [Figure 10-20-2].

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)

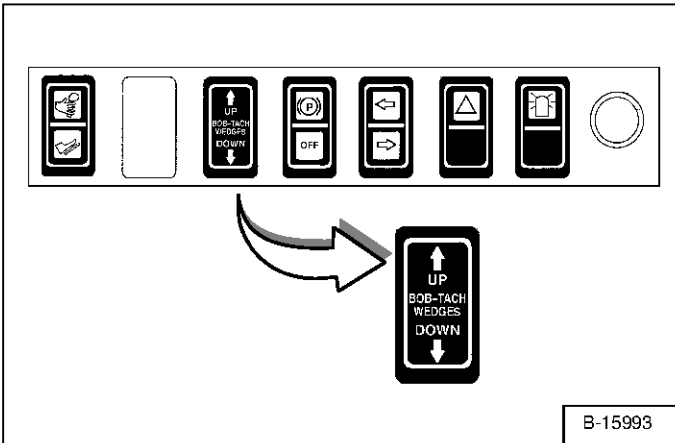
Power Bob-Tach Inspection



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



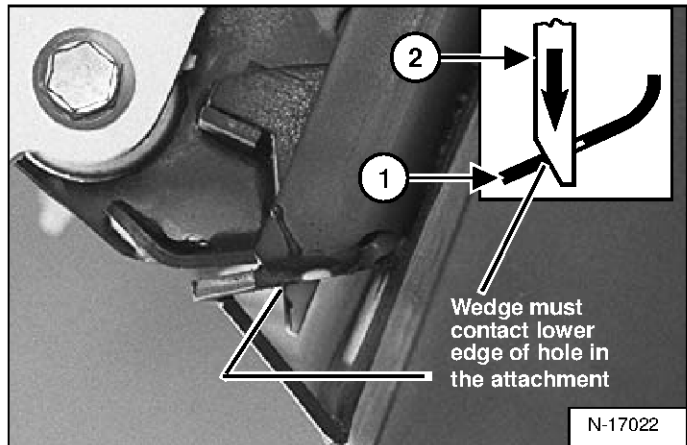
B-15993

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

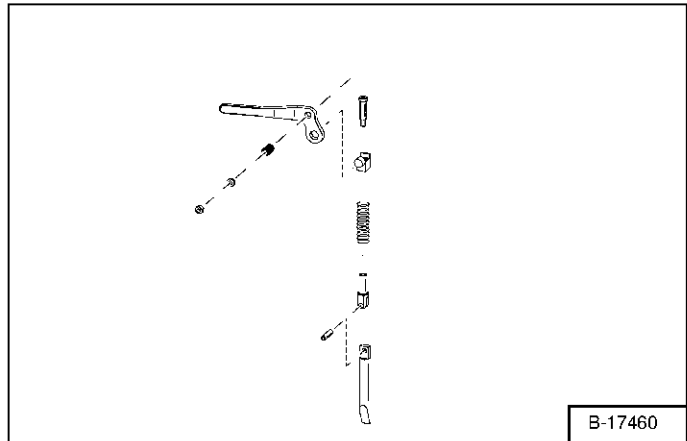


The wedges must extend through the holes in the attachment mounting frame (Item 1) [Figure 10-20-5].

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].

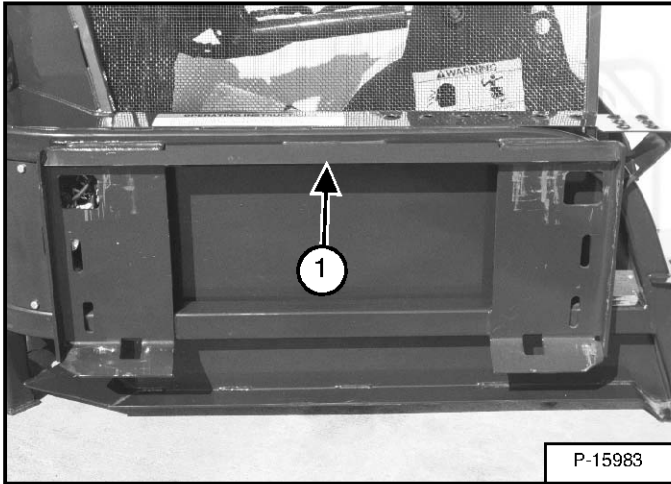
Look for cracked welds. Contact your Bobcat dealer for repair or replacement parts.

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)

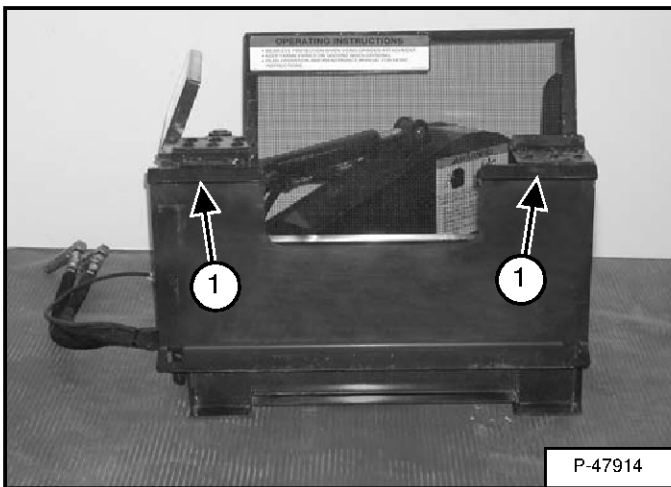
Figure 10-20-7



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

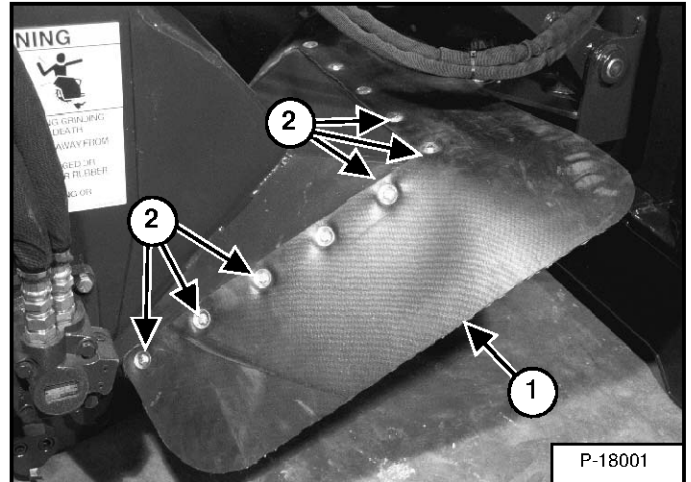
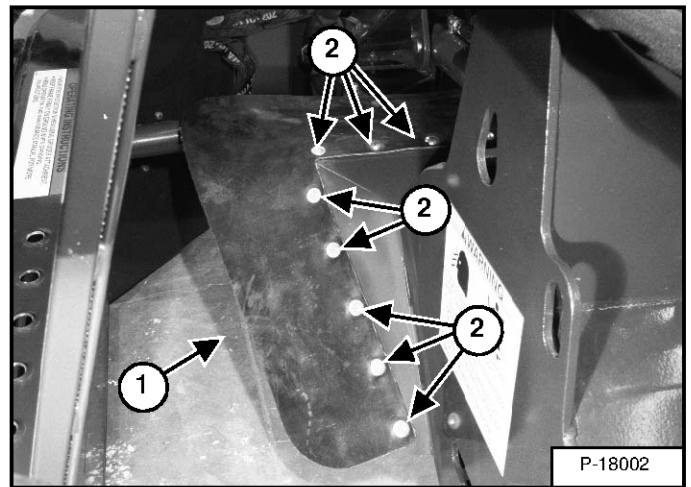


Figure 10-20-10



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

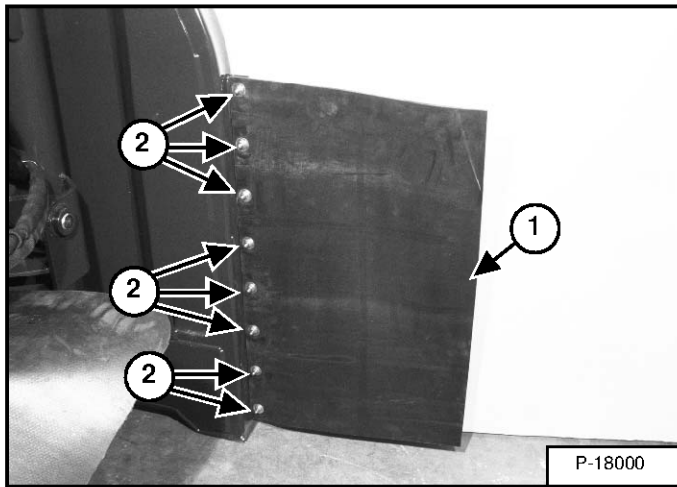
Replace the shield when damaged or worn by removing the fifteen bolts, washers and nuts (Item 2) [Figure 10-20-9] & [Figure 10-20-10].

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

INSPECTION (CONT'D)

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

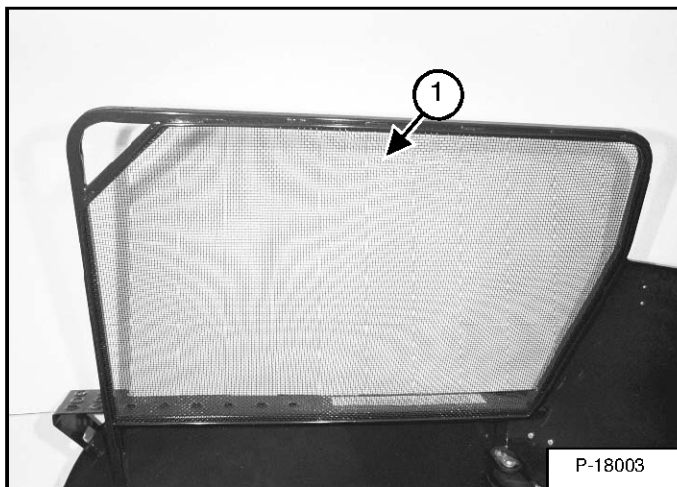
Figure 10-20-11



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.

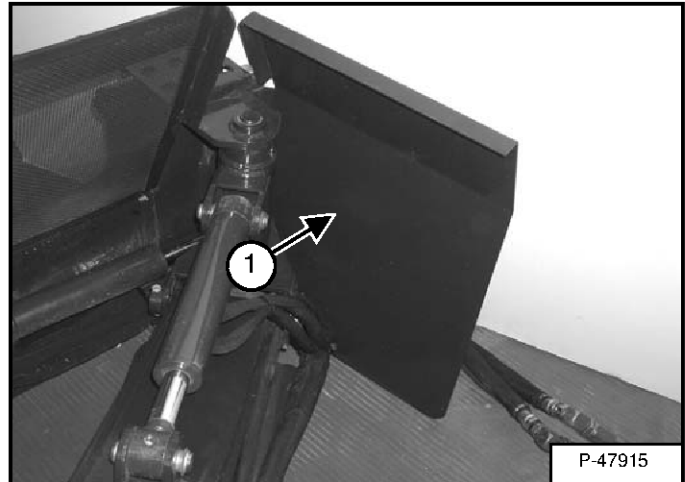
Figure 10-20-12



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

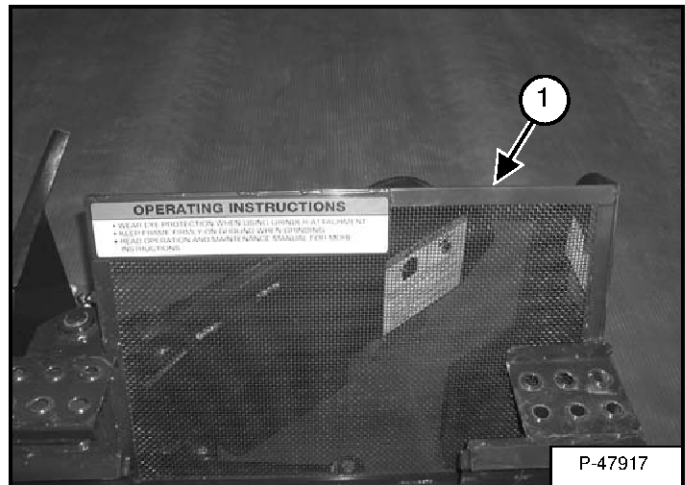
Daily Inspection (SG30)

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.

