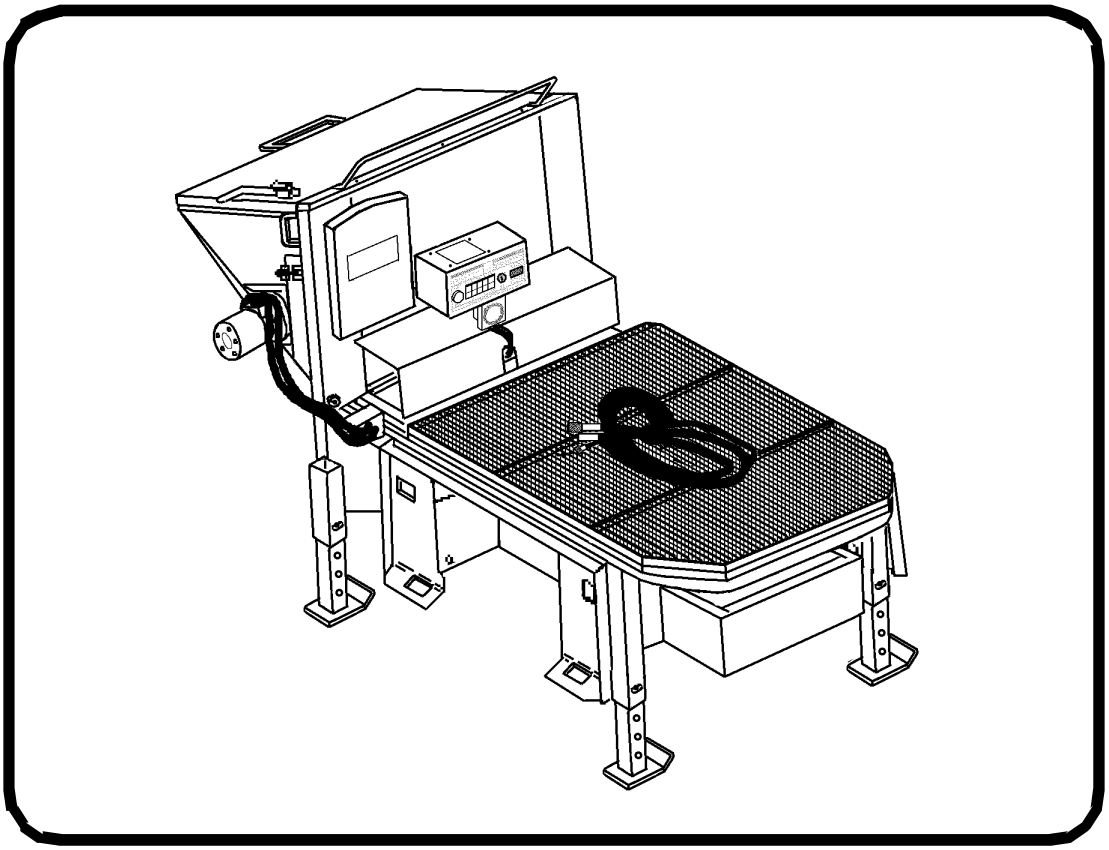
Operation & Maintenance Manual
Concrete Pump
(Used With Remote Attachment Control)

S/N 235400101 & Above



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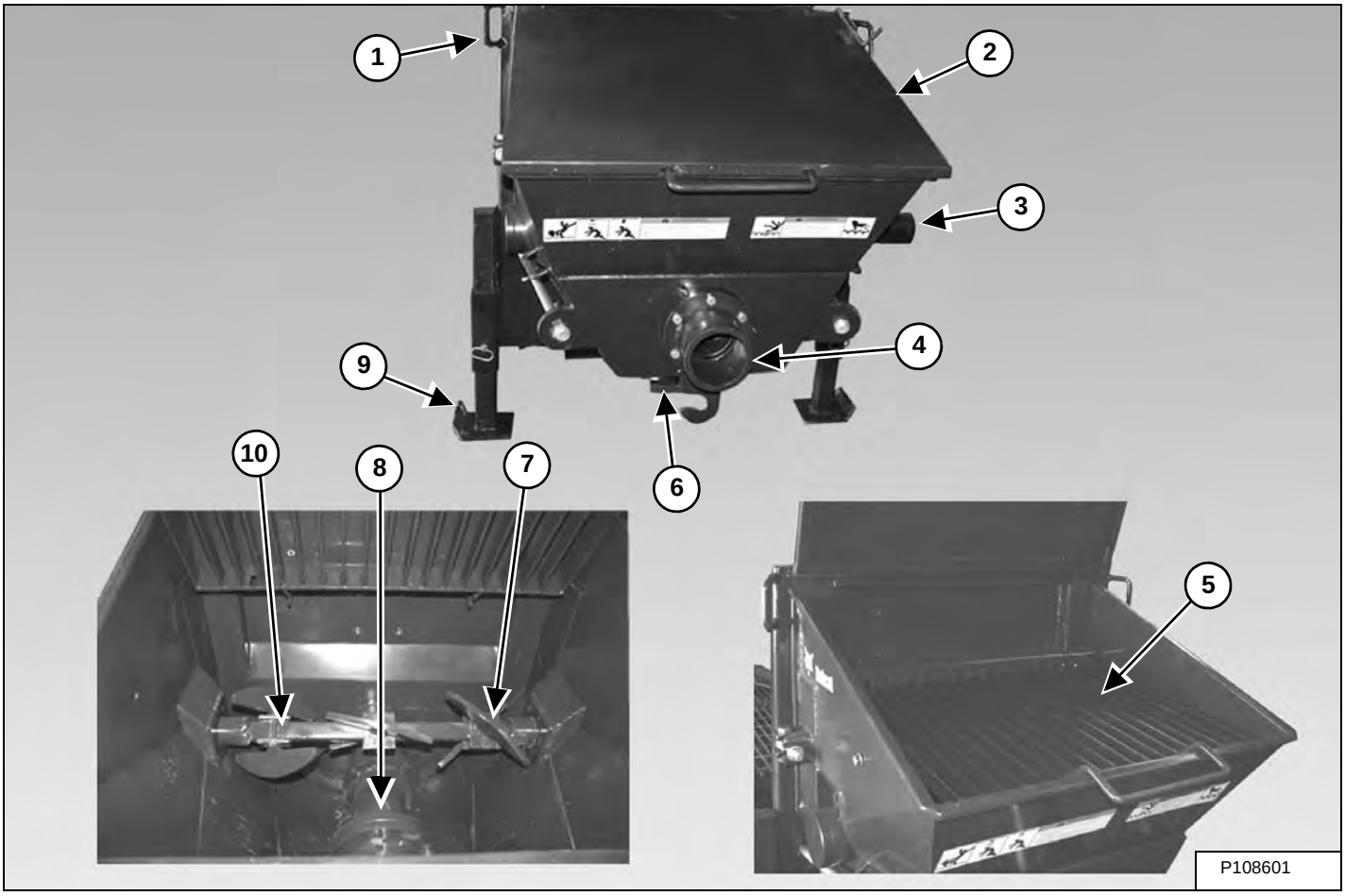

ITEM	DESCRIPTION	ITEM	DESCRIPTION
1	D-Ring (Both Sides)	**6**	Hopper Cleanout
2	Hopper Cover	**7**	Agitator Paddles
3	Agitator Motor	**8**	Swing Valve
4	Hopper Outlet	**9**	Support Stand (Both Sides)
5	Hopper Grate	**10**	Agitator Assembly

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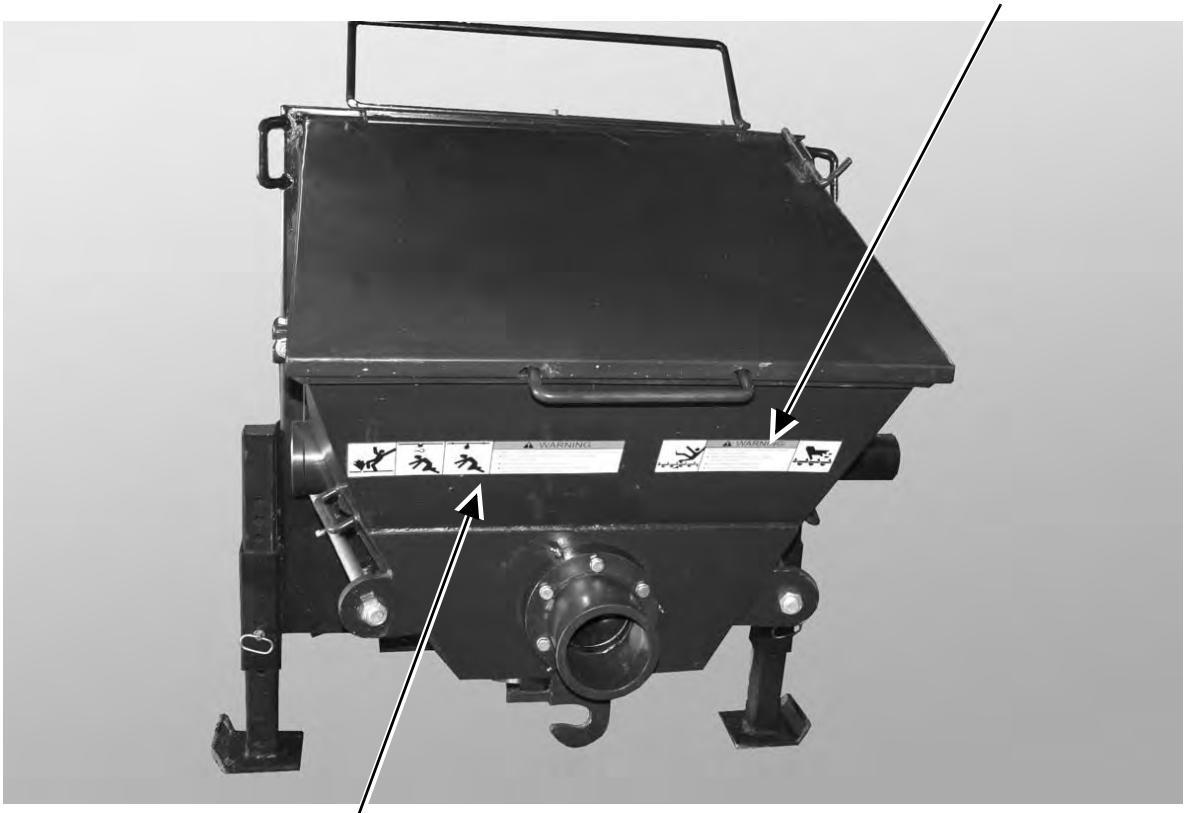

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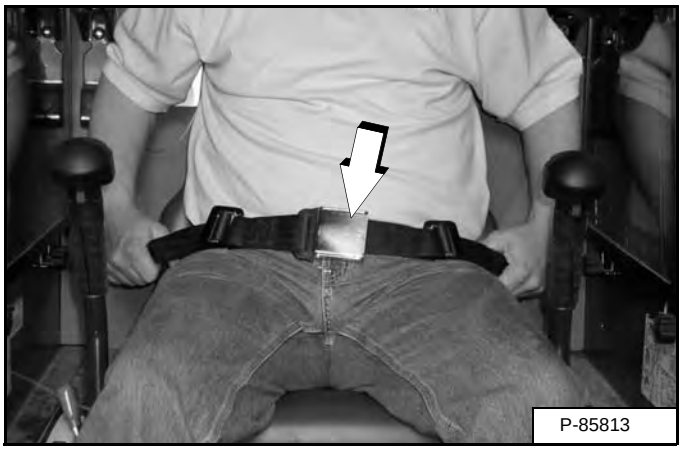
Entering And Exiting The Loader (Cont'd)

Entering (Cont'd)

Figure 17



Enter the loader. Fasten the seat belt and adjust it so the buckle is centered between your hips **[Figure 17]**.

Figure 18

Lower the seat bar and engage parking brake **[Figure 18]**.

Put the foot pedals or hand controls in NEUTRAL position.

NOTE: Keep your hands on the steering levers and your feet on the foot pedals (or footrests) while operating the loader.

See the loader's Operation & Maintenance Manual and Operator's Handbook for detailed information on operating the loader.

Exiting

Lower the lift arms and put the attachment flat on the ground.

Stop the engine and engage the parking brake.

Lift the seat bar and make sure the lift and tilt functions are deactivated.

Remove the key.

Exit the loader.

⚠ WARNING

AVOID INJURY OR DEATH

Before you leave the operator's position:

- **Lower the lift arms, put the attachment flat on the ground.**
- **Stop the engine and engage the parking brake.**
- **Move all pedals, handles, joysticks, and other controls until they are LOCKED or in the NEUTRAL position.**

SEE THE MACHINE OPERATION & MAINTENANCE MANUAL FOR MORE INFORMATION.

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⚠ WARNING

AVOID INJURY OR DEATH

Before you leave the operator's position:

- **Lower the lift arms, put the attachment flat on the ground.**
- **Stop the engine and engage the parking brake.**
- **Move all pedals, handles, joysticks, and other controls until they are LOCKED or in the NEUTRAL position.**

SEE THE MACHINE OPERATION & MAINTENANCE MANUAL FOR MORE INFORMATION.

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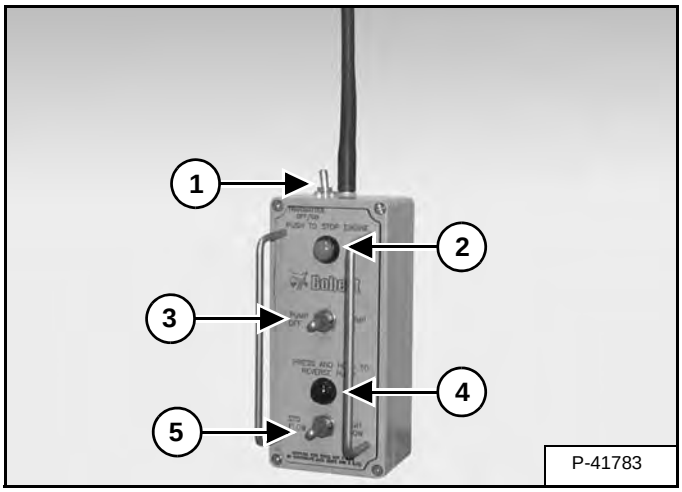
Optional Radio Remote Control

Figure 37



The Optional Remote Control **[Figure 37]** allows the operation of the concrete pump from different locations on the jobsite.

DO NOT enter or exit the loader with the engine running.

The Optional Remote Control **[Figure 37]** is equipped with the following:

1. **Transmitter ON / OFF Switch**

2. **Engine Stop Switch** - Push to stop the engine. The engine stop switch will stop the engine when the loader has been started with either the RAC key switch or the cab key switch. Turn the engine stop switch clockwise to release the switch.

3. **PUMP ON / PUMP OFF** - Push the switch to the right to activate the concrete pump. Push the switch to the left to stop the concrete pump.

4. **REVERSE PUMP** - Push and hold to reverse the concrete pump.

5. **HIGH FLOW / STD. FLOW** - Push the switch to the left to pump in standard flow. Push the switch to the right to pump in high flow if required.

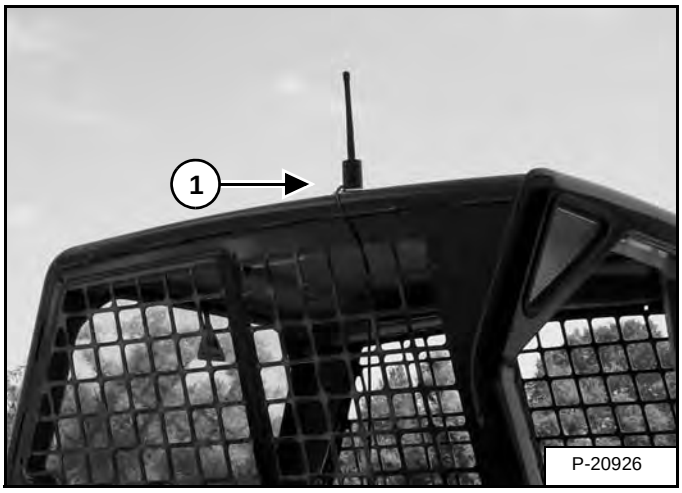
Radio Remote Operating Procedure

Use the following procedure to operate the radio remote control:

NOTE: Test functions of transmitter before pumping concrete.

NOTE: Control Panel Emergency Stop, Pump ON / OFF Switch, Reverse Switch and STD Flow / High Flow Switch will override the transmitter if activated.

Figure 38



Place the antenna (Item 1) **[Figure 38]** on top of the loader cab.

Place the PUMP ON / OFF switch on the control panel in the OFF position.

Position the HIGH FLOW / STD FLOW switch on the control panel in the STD FLOW position.

Start loader engine.

Press HYD ON / OFF switch to start hydraulics.

Switch transmitter toggle to ON.

Press transmitter toggle to PUMP ON.

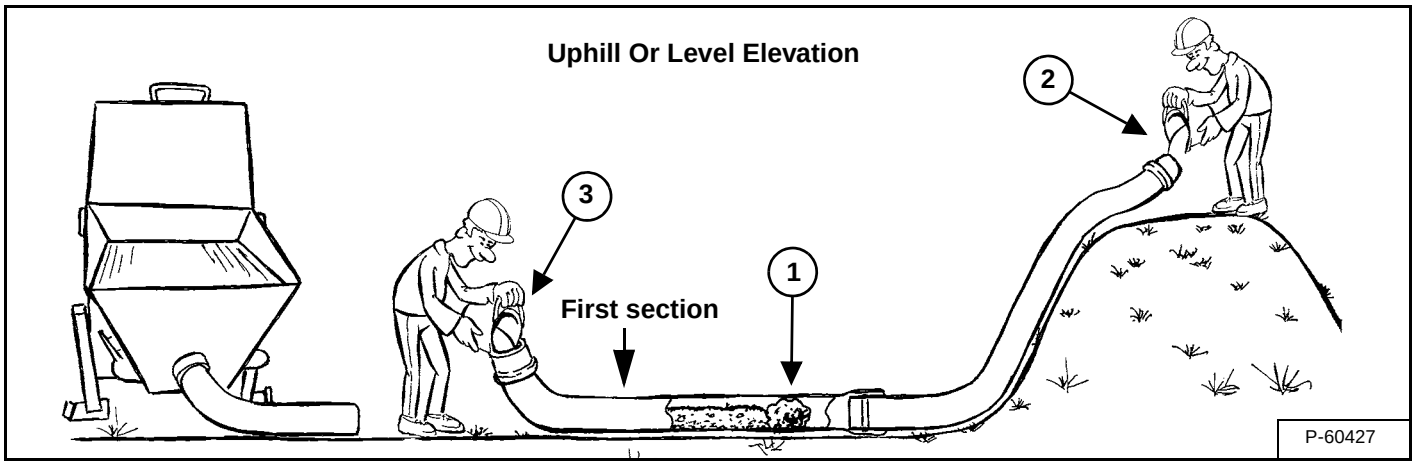
NOTE: Do Not leave antenna cord coiled up during remote operation.

NOTE: The antenna also can be placed near a basement window or in close proximity to the pour.

Lubricating The Delivery System (Cont'd)

Uphill Or Level Elevation

Figure 57



Place a 'rabbit' (Item 1) **[Figure 57]** (such as a foam ball or crumpled up sheet of newspaper) into the END of the first hose or tube.

Add approximately 18,9 L (5 U.S. gal) of water (NOT slurry) to the remaining sections of delivery hoses or tubes.

When pumping concrete UPHILL or along a level elevation first connect the remaining sections of hoses or tubes to the first section then add the water to the far end (Item 2) **[Figure 57]** of the hoses or tubes.

Position the first concrete truck at the hopper. Check the concrete mix. ***DO NOT*** discharge concrete into the hopper at this time.

Pour the 18,9 L (5 U.S. gal) of slurry (prime) (Item 3) **[Figure 57]** into the first hose or tube and connect it to the pump.

Discharge the concrete mix into the hopper and start the pump.

NOTE: The only time to stop the pump during the Delivery System Lubrication procedure is if a blockage occurs.

IMPORTANT

If hoses or lines are blocked for any reason, or if the lines are kinked when starting up or during the pumping cycle, the pump pressure could straighten out the kink or force out the blockage. This rapid surge of material could cause the lines to whip or move in a manner that could cause injury to personnel.

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When the concrete reaches the end of the hose and all the slurry (prime) is pumped out, stop the pump.

The lubrication procedure is complete and the delivery system is ready to pump concrete.

If it is necessary to replace or add a section of delivery system, after the initial lubrication procedure, wet the inside area of the hose, pipe or elbow with 18,9 L (5 U.S.gal) of water per 7,6 m (25 ft) length, before adding it to the system.

When pumping long distances or pumping stiff mixes, expect a drop in volume compared to shorter lines and wetter mixes due to the change in valve efficiency or cavitation.

NOTE: Leaking manifold seals or hose gaskets which leak water can cause separation and subsequent jamming at the point.

General Operating Recommendations

Down-Hill Pumping

NOTE: Down-hill pumping can be a difficult procedure on some jobs.

Lubricate the delivery system. (See Lubricating The Delivery System on Page 47.)

NOTE: It is suggested that a 'rabbit' (such as a foam ball or crumpled up newspaper) be placed in the hose before the start of pumping.

Wet the sponge before placing it in the hose to keep the slurry (primer) from running too far ahead of the concrete, which will reduce the possibility of separation. When the pump is stopped, the material can flow slowly down, due to gravity, and cause the hose to collapse.

When pumping is resumed, expect blockage at the point of hose collapse. To prevent this from happening, the hose can be "kinked off" at the discharge end when the pump is stopped to prevent the gravity flow of the material in the hose.

The use of stiffer mixes when pumping down-hill will decrease gravity flow of the material in the hose and will assure a smoother operation between the cam roller bearing and cam plate. As with any job, make sure that the hose and the couplings are in good workable shape.

Vertical Pumping

When pumping vertically up the side of a building, above 12,192 m (40 ft), we would recommend the installation of steel pipe securely fastened at intervals as necessary to support the pipe. Ninety degree, long radius pipe sweeps should be installed at the top and bottom of the steel line.

Use a 7,6 m (25 ft) hose, or short section, off the pump; and for the balance of the horizontal distance to the vertical line, use steel pipe. This type of installation has been satisfactory on many jobs being pumped in excess of 30,48 m (100 ft) high. Line pressures are always less using steel pipe as compared to hose.

When pumping vertically, using all hose, it is recommended not to go higher than 15,24 mm (50 ft) with hose. The hose should be tied off at intervals of 3,048 m (10 ft), if possible. Special attention should be given when tieing the hose off at the top as the hose will have a tendency to stretch when filled with concrete. This will increase the possibility of a blockage at the point where the hose is tied off. To avoid this, a long radius of 90º elbow is recommended. The suggested place to tie off is on the hose, under the clamp.

NOTE: It is strongly recommended that steel pipe be used on vertical pumping for safety and convenience.

⚠ WARNING

AVOID INJURY OR DEATH

The delivery system must be secured and supported for vertical pumping.

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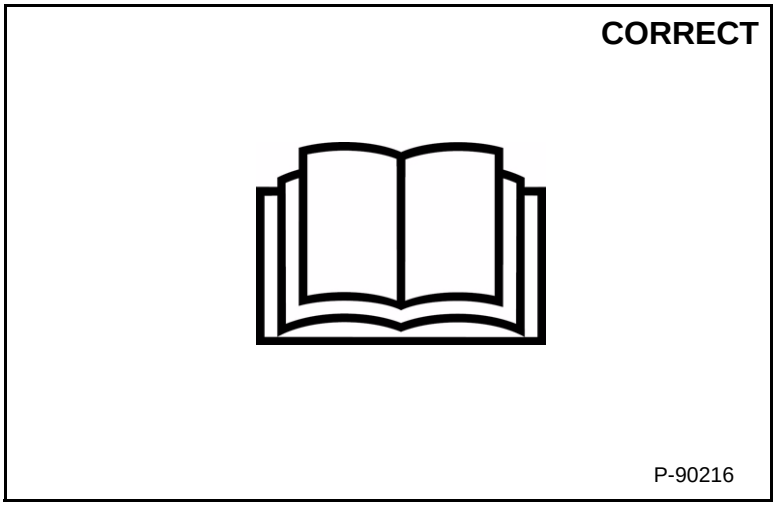
MAINTENANCE SAFETY

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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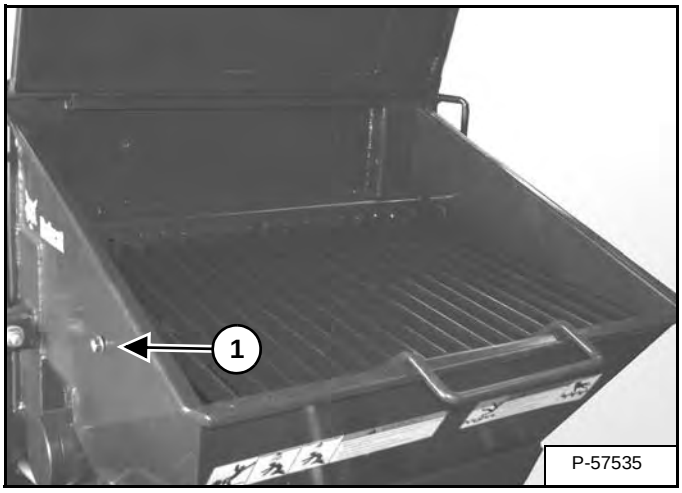
Procedure(s) (Cont'd)

Figure 93

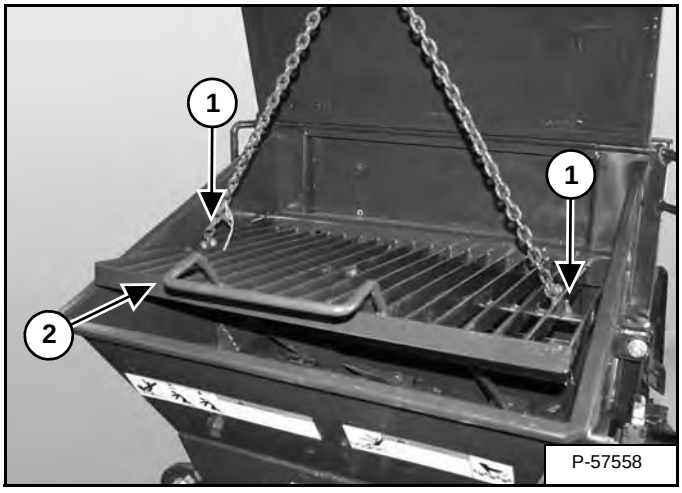


Lift and lock hopper cover open.

Remove the bolt(s) (Item 1) from both sides of the hopper grate **[Figure 93]**.

Installation: Tighten bolts to 88 - 95 N•m (65 - 70 ft-lb) torque.

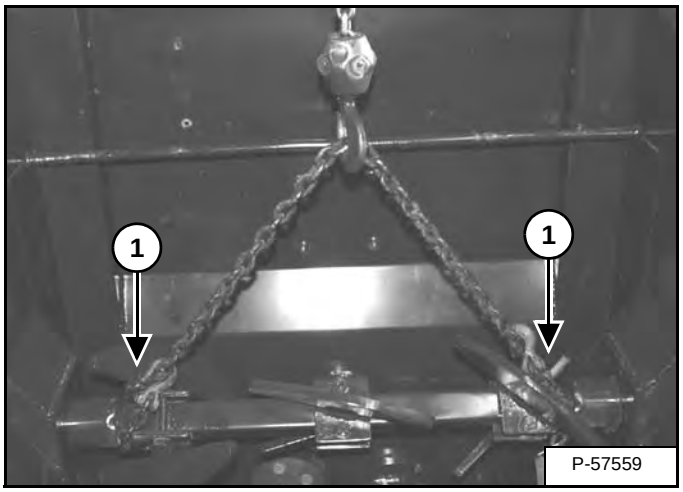
Figure 94



NOTE: Use chains that are in good condition and of adequate size to lift the attachment.

Install a chain (Item 1) on the hopper grate (Item 2), then remove the hopper grate **[Figure 94]**.

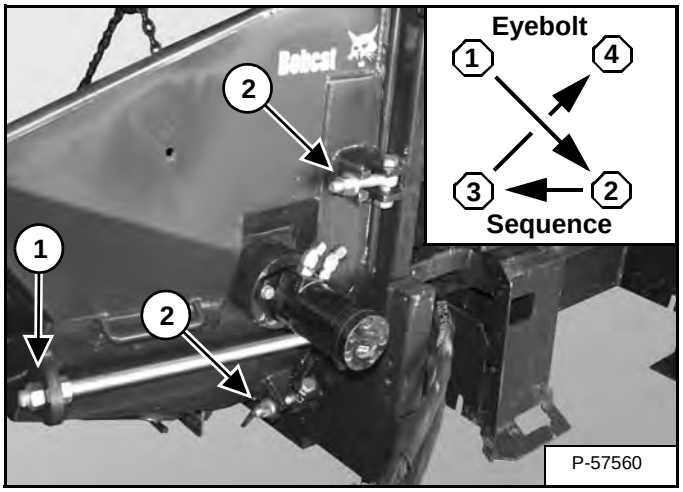
Figure 95



NOTE: Use chains that are in good condition and of adequate size to lift the attachment.

Install a chain (Item 1) **[Figure 95]** around the agitator shaft.

Figure 96



Remove the tie rod nuts (Item 1) on both sides, then loosen the four eyebolts (Item 2) on both sides **[Figure 96]**.

Installation: Tighten eyebolts in sequence until the silicone sealant is squeezed out around the hopper.