



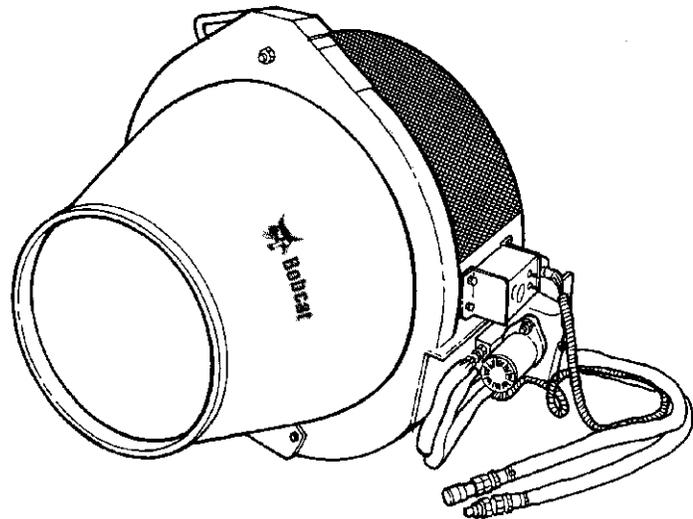
**Bobcat**®

# Concrete Mixer

# Service Manual

**S/N 678500101 & Above**

**S/N A01600101 & Above**



Product: Bobcat Concrete Mixer Service Repair Workshop Manual  
Full Download: <https://www.arepairmanual.com/downloads/bobcat-concrete-mixer-service-repair-workshop-manual/>

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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-2003-0903



**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 without instructions. See Operation & Maintenance Manual and Attachment Service Manual.
-  Cleaning and maintenance are required daily.
-  Never service or adjust attachment with the engine running unless instructed to do so in manual.
-  Always lower the attachment 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**

**ELECTRICAL  
SYSTEM**

**SPECIFICATIONS  
AND  
SCHEMATICS**

**CALIFORNIA  
PROPOSITION 65 WARNING**

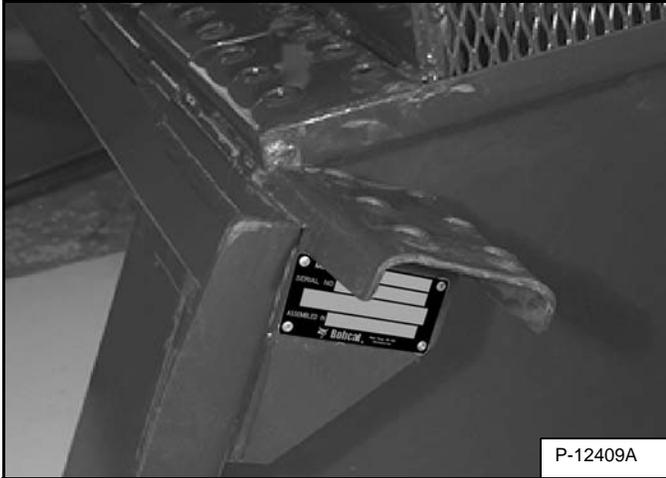
Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects and other reproductive harm.



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## SERIAL NUMBER LOCATION

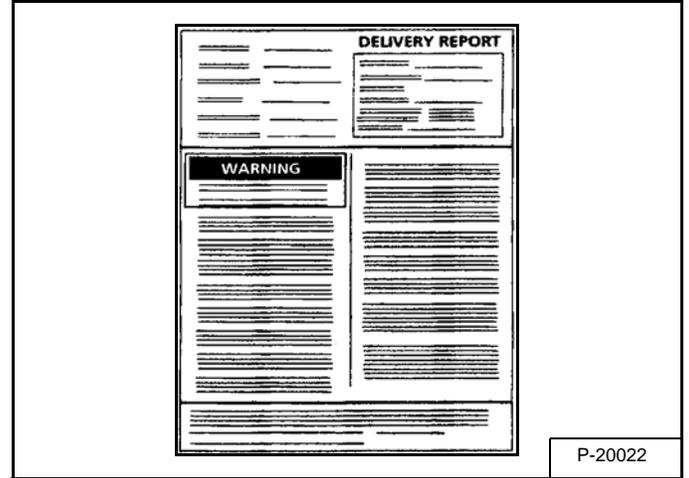
Figure 1



Always use the serial number of the Concrete Mixer 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].

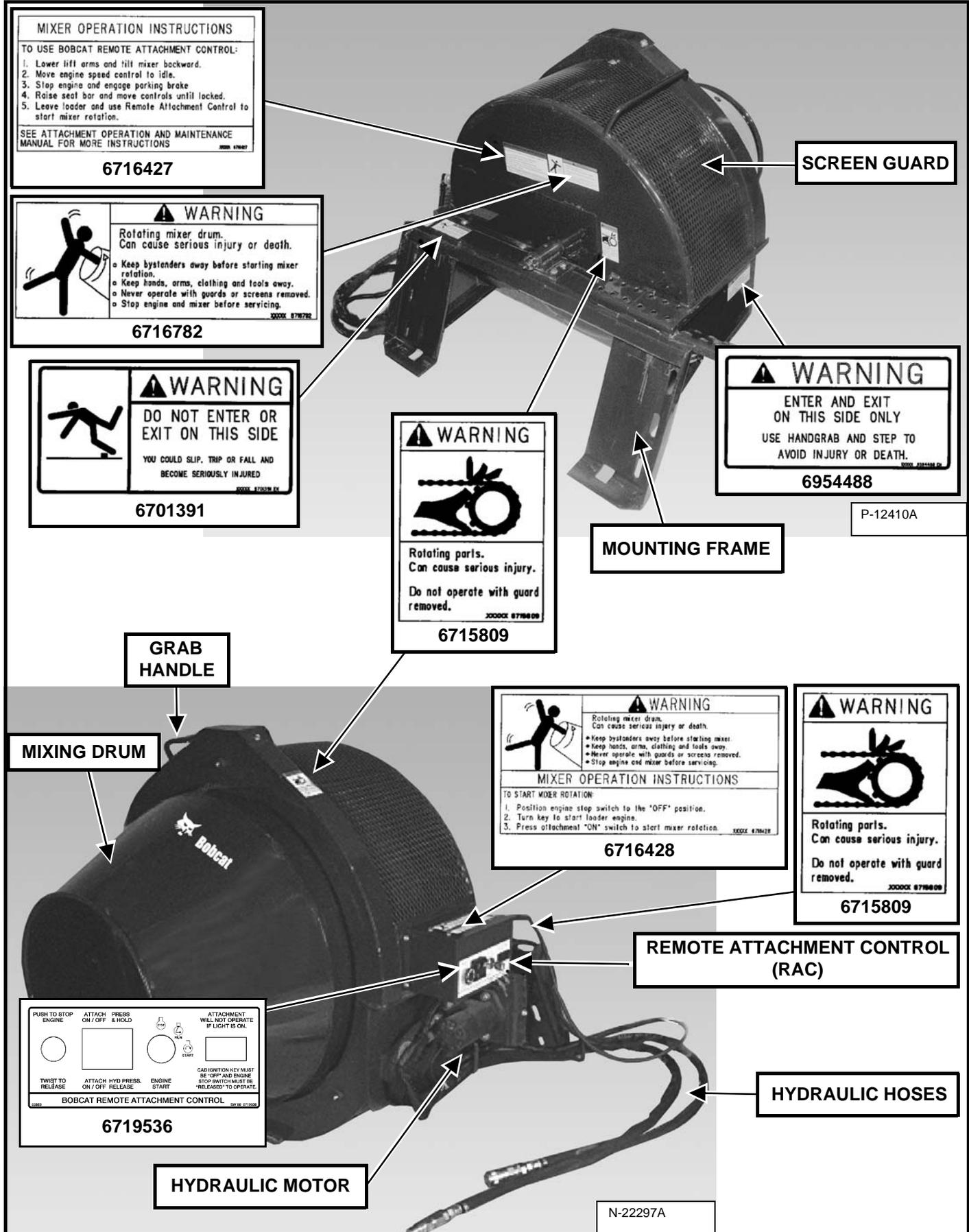
## ATTACHMENT DELIVERY REPORT

Figure 2



The Attachment Delivery Report must be filled out by the dealer and signed by the owner or operator when the Concrete Mixer is delivered. An explanation of the form must be given to the owner. Make sure it is filled out completely [Figure 2].

**IDENTIFICATION AND MACHINE SIGNS (DECALS)**



## SAFETY AND MAINTENANCE

## SAFETY AND MAINTENANCE

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## TROUBLESHOOTING

PROBLEM	CAUSE	CORRECTION
Concrete Mixer does not seat properly on the Bob-Tach.	Bob-Tach pins are not fully retracted prior to installation.	Retract Bob-Tach pins before installing.
	Mud, dirt or stones are lodged between the Bob-Tach and the Concrete Mixer.	Remove debris between Bob-Tach and Concrete Mixer.
Loader will not start with Concrete Mixer removed.	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 Attachment installed.	Engine stop switch on Remote Attachment Control engaged.	Turn the engine stop switch clockwise to reset 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 reset the switch.
	Loader key switch in the run position.	Turn the loader key switch to the OFF position.
Mixer Drum does not turn.	No hydraulic flow.	Check quick couplers connection. Check for damaged hose ends and fittings. Engage loader front auxiliary hydraulics.
	Incorrect chain adjustment.	Adjust drive chain.
	Damaged sprockets and/or drive chain.	Repair or replace sprockets and drive chain.
Mixer Drum vibrates excessively.	Concrete Mixer not correctly attached to Bob-Tach.	Check for correct mounting of the Concrete Mixer to the Bob-Tach.
	Drum rollers worn.	Replace drum rollers.
	Rear shaft bent.	Replace shaft.
	Rear shaft bearing is worn or damaged.	Replace rear shaft bearing.



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## LUBRICATION

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

# IMPORTANT

Fluid such as engine oil, hydraulic fluid, coolants, 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.

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Lubricate the following grease fittings. **EVERY 8-10 HOURS:**



Figure 10-20-1

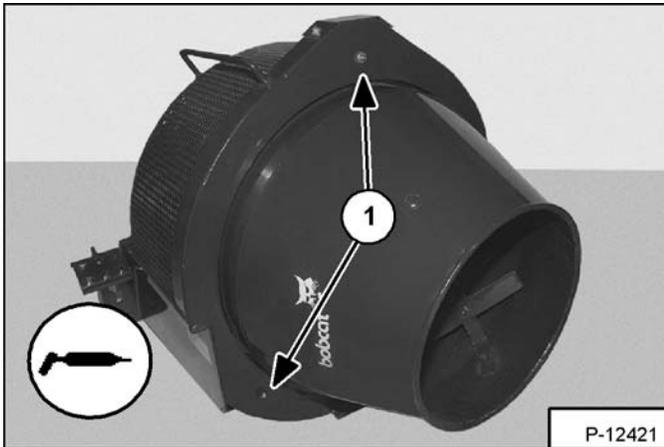
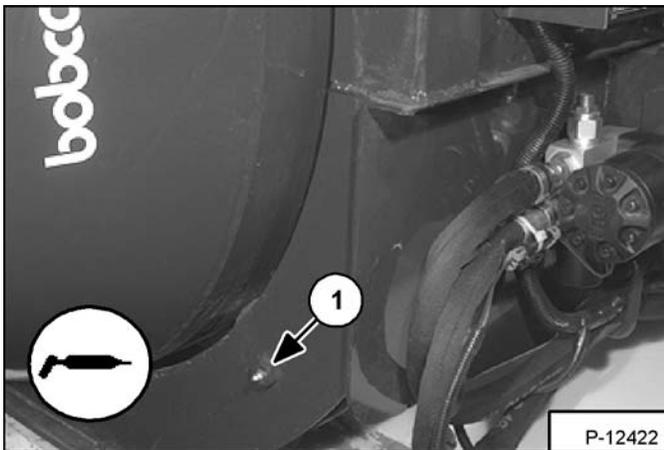


Figure 10-20-2



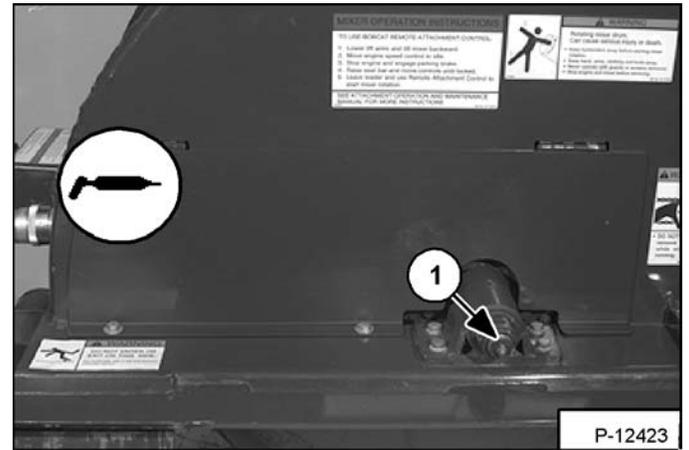
Drum wheels (3) (Item 1) [Figure 10-20-1] & [Figure 10-20-2].

Lubricate the following grease fitting.

**EVERY 50 HOURS:**



Figure 10-20-3



Rear drum spindle (Item 1) [Figure 10-20-3].



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## INSPECTION

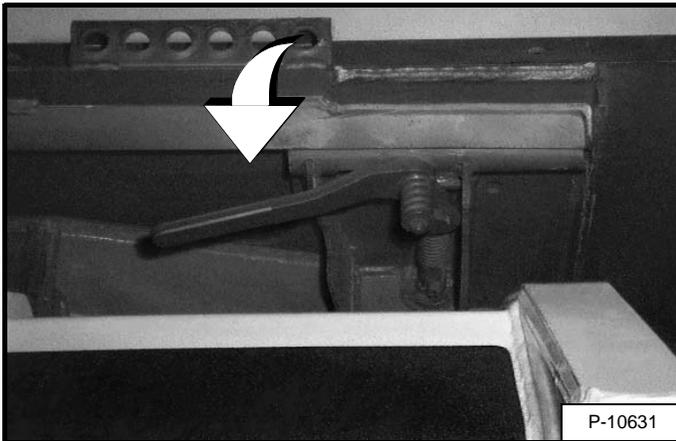
### Hand Lever Bob-Tach Inspection

# ! 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

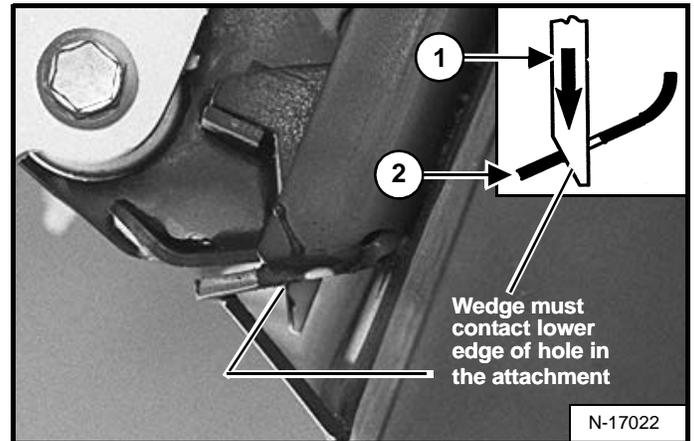
Figure 10-30-1



Move the Bob-Tach levers down to engage the wedges [Figure 10-30-1].

The levers and wedges must move freely.

Figure 10-30-2

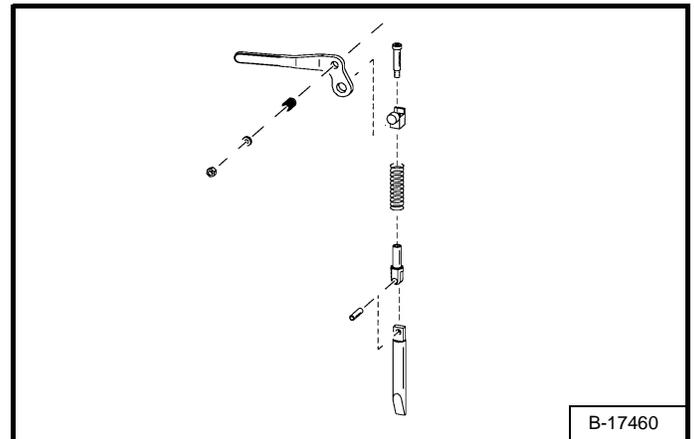


The wedges must extend through the holes in the attachment mounting frame (Item 2) [Figure 10-30-2].

The spring loaded wedge (Item 1) must contact the lower edge of the hole in the attachment (Item 2) [Figure 10-30-2].

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 10-30-3



Inspect the mounting frame on the attachment and the Bob-Tach, linkages and wedges for excessive wear or damage [Figure 10-30-3].

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 MACHINE.*)

## INSPECTION (CONT'D)

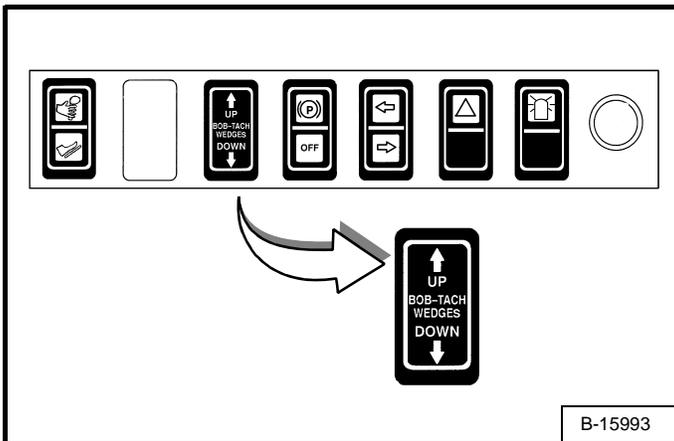
### Power Bob-Tach Inspection

# ! 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 10-30-4



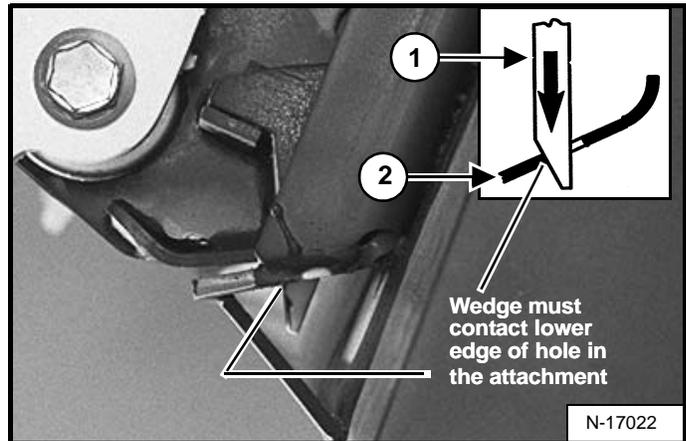
B-15993

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 10-30-4].

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 10-30-5



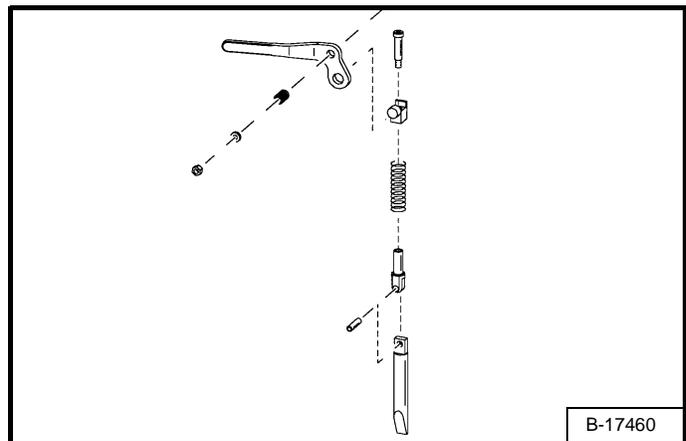
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The wedges must extend through the holes in the attachment mounting frame (Item 2) [Figure 10-30-5].

The spring loaded wedge (Item 1) must contact the lower edge of the hole in the attachment (Item 2) [Figure 10-30-5].

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 10-30-5].

Figure 10-30-6



B-17460

Inspect the mounting frame on the attachment and the Bob-Tach, linkages and wedges for excessive wear or damage [Figure 10-30-6].

Replace any parts that are damaged, bent, or missing. Keep all fasteners tight.

Inspect the hoses and fittings for leaks.

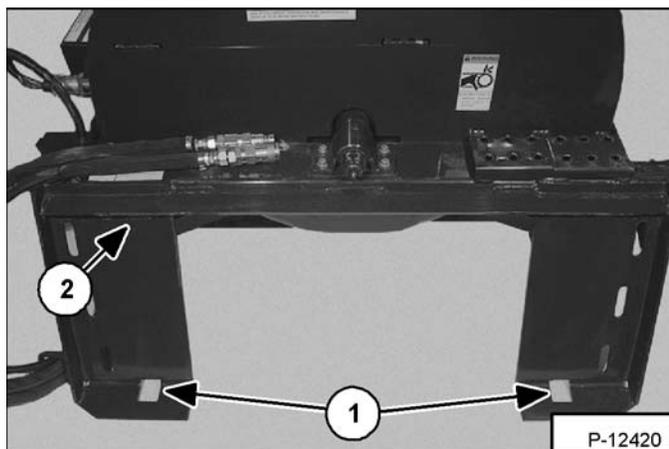
Look for cracked welds. Contact your Bobcat dealer for repair or replacement parts.

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

## INSPECTION (CONT'D)

### Concrete Mixer Mount Inspection

Figure 10-30-7



Inspect the Bob-Tach wedge mounts (Item 1), mounting flange (Item 2) and all welds on the Concrete Mixer mount for wear and damage each time the Concrete Mixer is removed from the loader **[Figure 10-30-7]**.



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## HYDRAULIC SYSTEM

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## HYDRAULIC SYSTEM



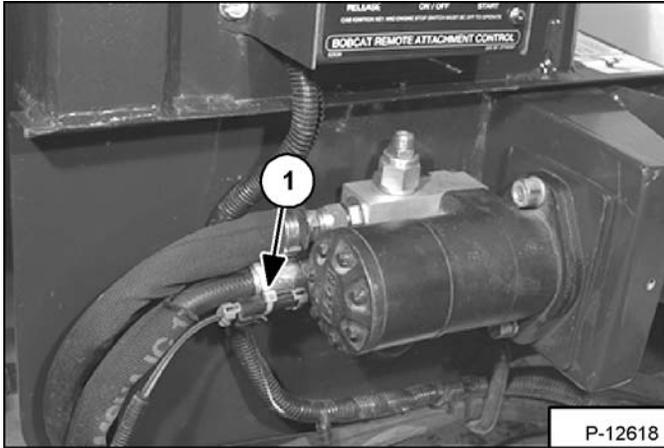
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## HYDRAULIC MOTOR

### Removal And Installation

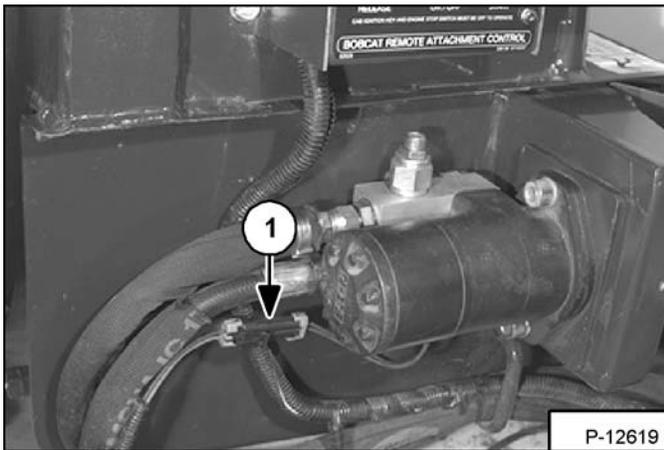
Remove the mixing drum drive chain. (See Removal And Installation on Page 30-50-2.)

Figure 10-151-1



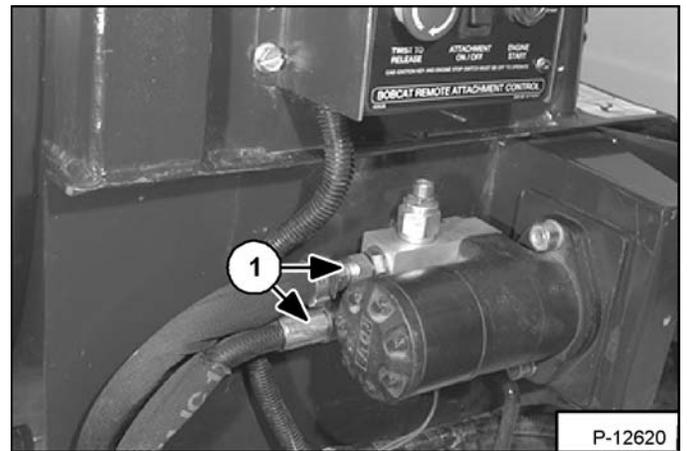
Cut and remove the cable tie (Item 1) [Figure 10-151-1].

Figure 20-10-2



Disconnect the wire harness (Item 1) [Figure 20-10-2].

Figure 20-10-3



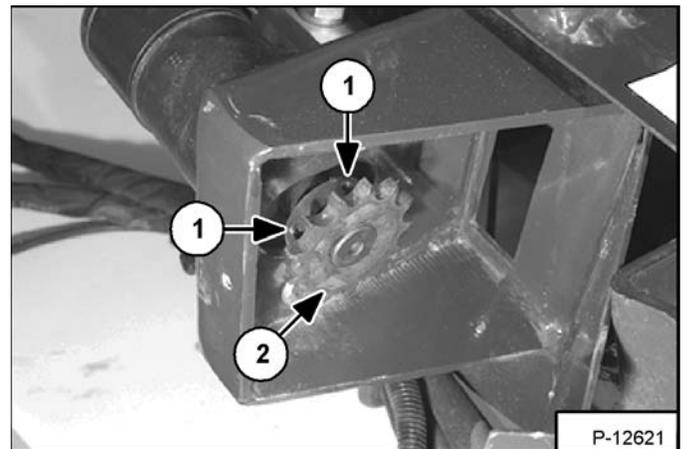
Mark and remove the hydraulic hoses (Item 1) [Figure 20-10-3].

## IMPORTANT

When repairing hydrostatic and hydraulic systems, clean the work area before disassembly and keep all parts clean. Always use caps and plugs on hoses, tubelines and ports to keep dirt out. Dirt can quickly damage the system.

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Figure 20-10-4



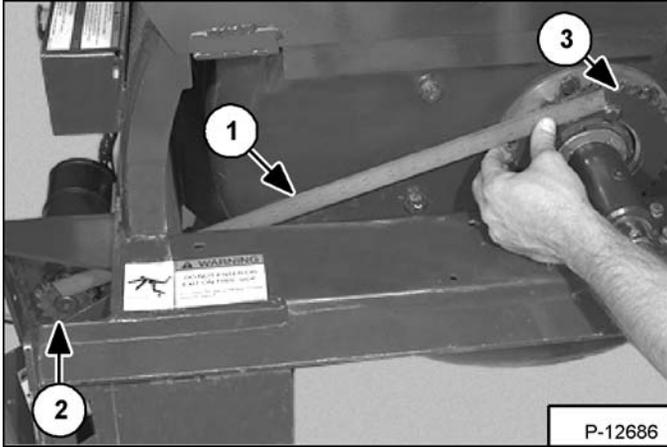
Loosen the two set screws (Item 1) [Figure 20-10-4].

Remove the gear (Item 2) [Figure 20-10-4].

## HYDRAULIC MOTOR (CONT'D)

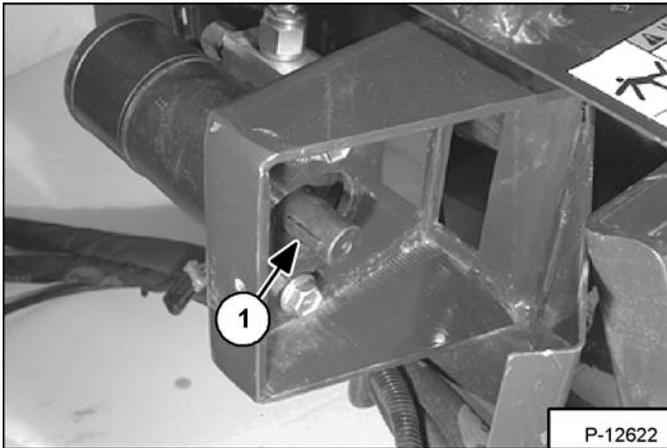
### Removal And Installation (Cont'd)

Figure 20-10-5



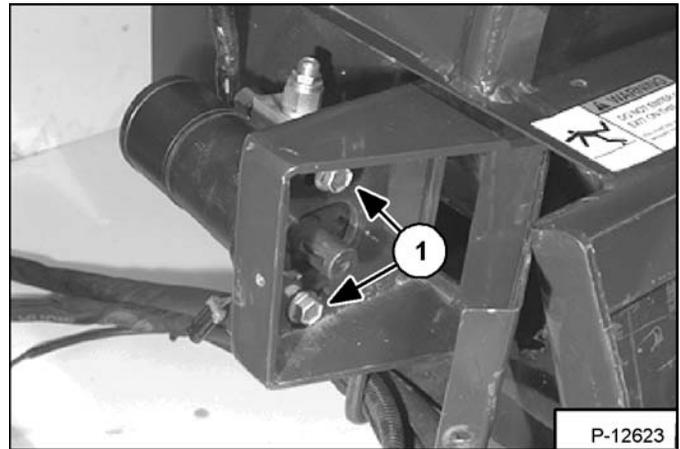
**Installation:** Using a straight edge (Item 1), align the gear (Item 2) on the motor with the gear (Item 3) on the mixing drum. Failure to align the gears could cause premature gear and chain failure [Figure 20-10-5].

Figure 20-10-6



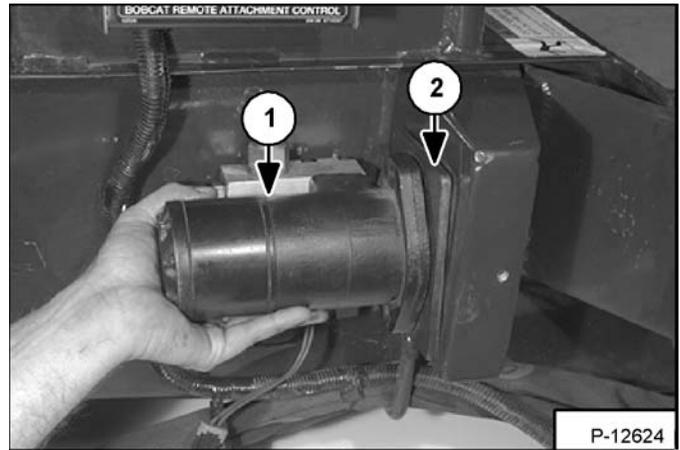
Remove the key (Item 1) [Figure 20-10-6] from the motor shaft.

Figure 20-10-7



Remove the two bolts (Item 1) [Figure 20-10-7], lock washers and nuts.

Figure 20-10-8

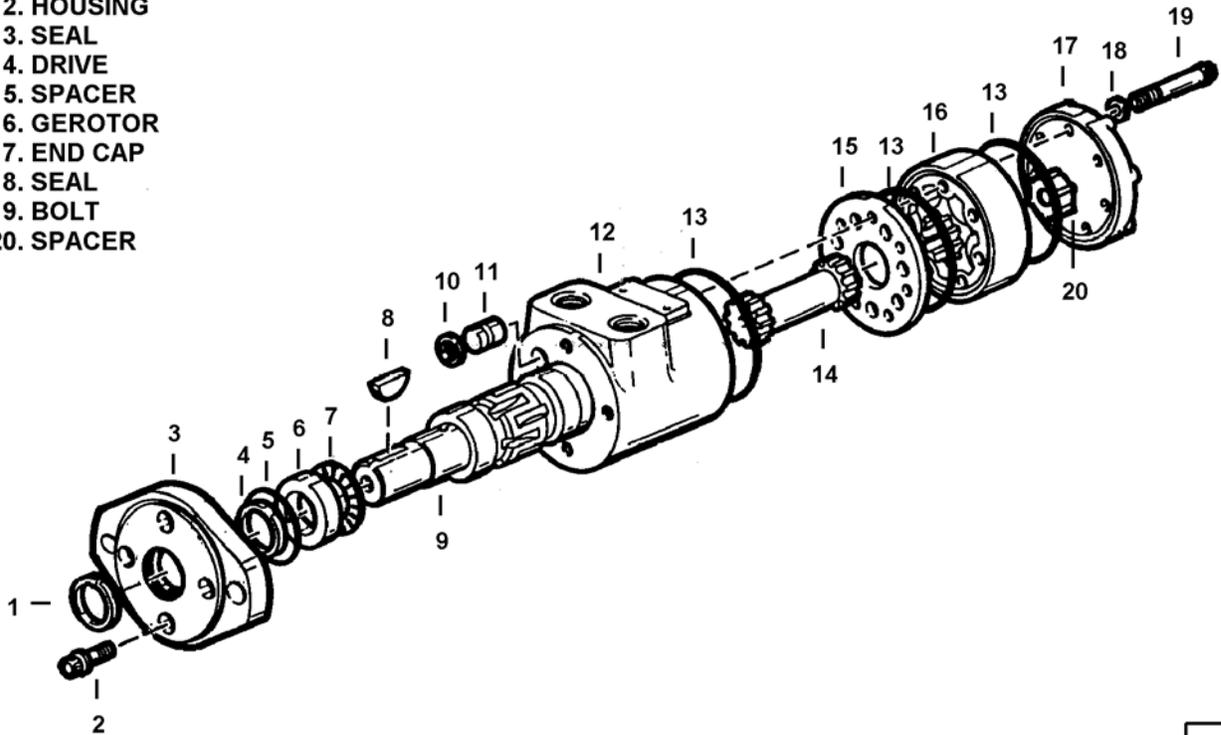


Remove the motor (Item 1) and plate (Item 2) [Figure 20-10-8].

## HYDRAULIC MOTOR (CONT'D)

### Parts Identification

1. SEAL
2. BOLT
3. MOUNTING FLANGE
4. SEAL
5. SEAL
6. BEARING RACE
7. THRUST BEARING
8. KEY
9. SHAFT
10. SEAL
11. PLUG
12. HOUSING
13. SEAL
14. DRIVE
15. SPACER
16. GEROTOR
17. END CAP
18. SEAL
19. BOLT
20. SPACER

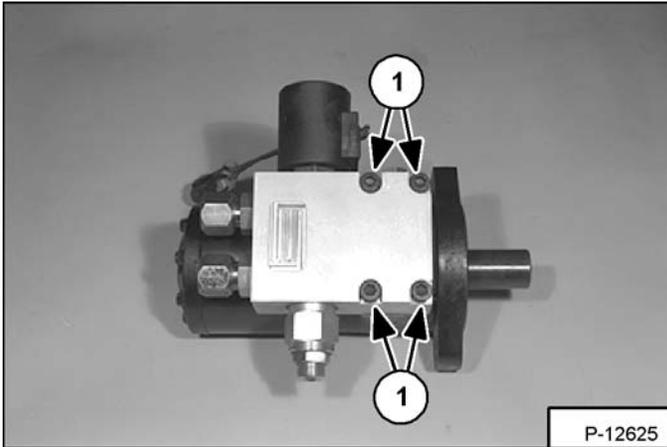


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## HYDRAULIC MOTOR (CONT'D)

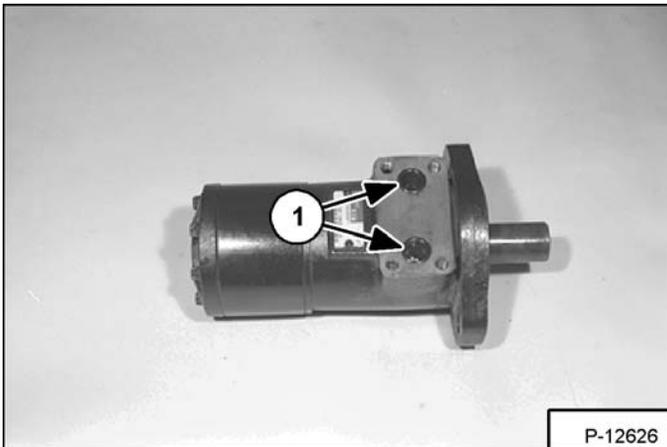
### Disassembly And Assembly

Figure 20-10-9



Remove the four bolts (Item 1) [Figure 20-10-9] from the hydraulic valve. Remove the valve from the motor. (See Disassembly on Page 20-20-4.)

Figure 20-10-10



Remove the O-rings (Item 1) [Figure 20-10-10] from the motor.

**NOTE: THE ILLUSTRATIONS MAY NOT BE EXACTLY THE SAME AS THE HYDRAULIC MOTOR YOU ARE WORKING ON, BUT THE PROCEDURE IS THE SAME.**

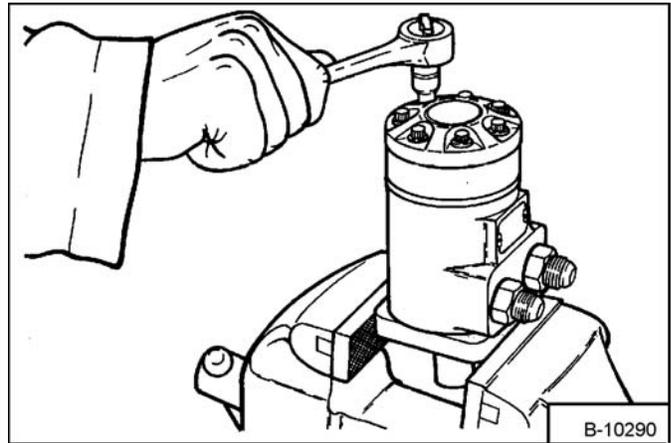
# IMPORTANT

When repairing hydrostatic and hydraulic systems, clean the work area before disassembly and keep all parts clean. Always use caps and plugs on hoses, tubelines and ports to keep dirt out. Dirt can quickly damage the system.

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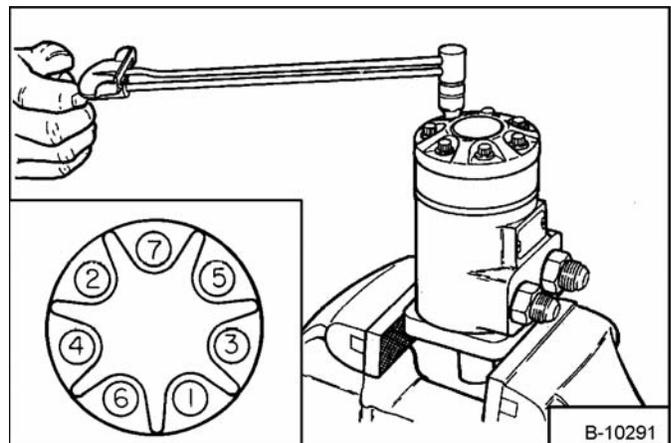
Put the motor mounting flange in a vise.

Figure 20-10-11



Loosen the end cap bolts [Figure 20-10-11].

Figure 20-10-12

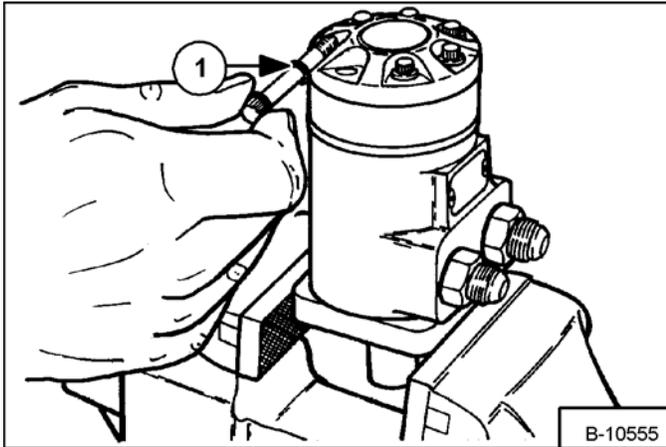


**Installation:** Tighten the bolts to 25 in.-lb. (2,8 N•m) torque. Check that all seals are in position. Tighten the bolts to 200 in.-lb. (23 N•m) torque in the correct sequence [Figure 20-10-12].

## HYDRAULIC MOTOR (CONT'D)

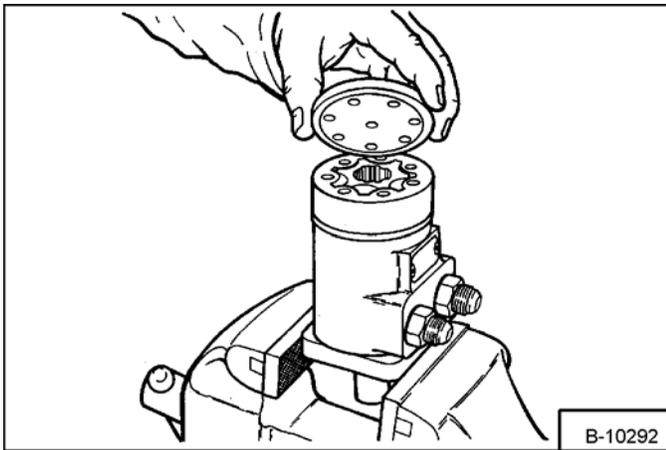
### Disassembly And Assembly (Cont'd)

Figure 20-10-13



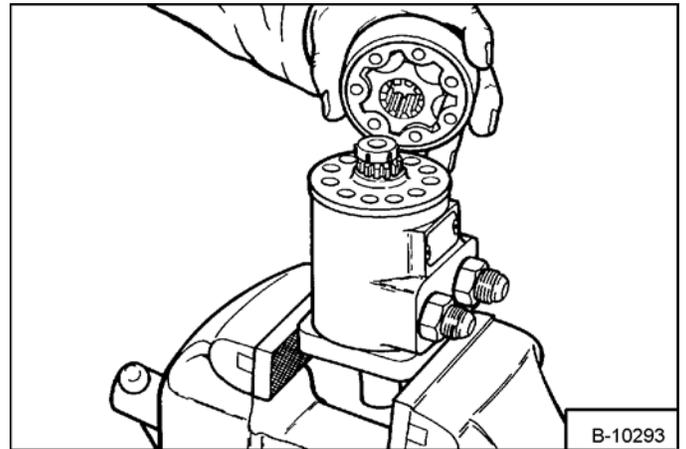
Remove the bolts and sealing washers (Item 1) [Figure 20-10-13].

Figure 20-10-14



Remove the end cap [Figure 20-10-14].

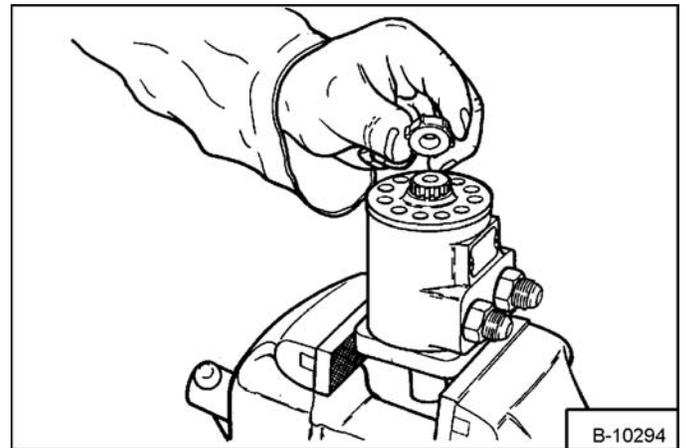
Figure 20-10-15



Remove the gerotor [Figure 20-10-15].

**NOTE:** When assembling the motor (See Timing The Hydraulic Motor on Page 20-10-8.)

Figure 20-10-16

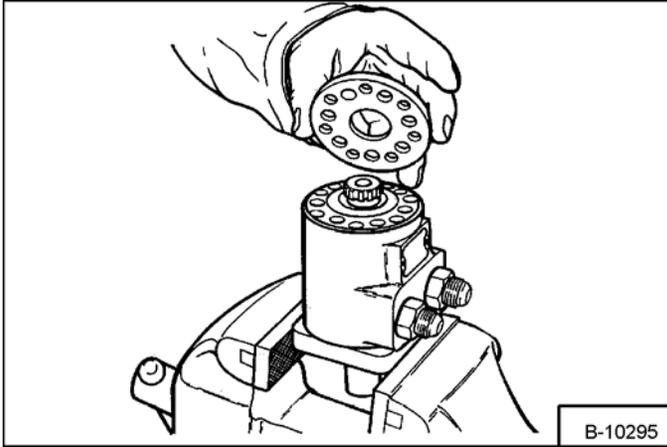


Remove the drive spacer [Figure 20-10-16].

## HYDRAULIC MOTOR (CONT'D)

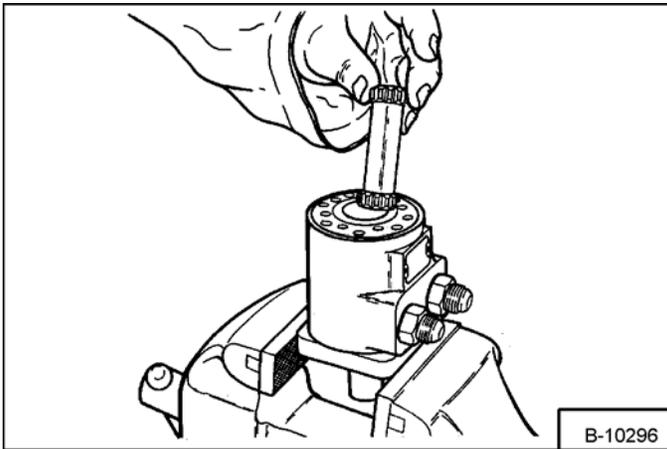
### Disassembly And Assembly (Cont'd)

Figure 20-10-17



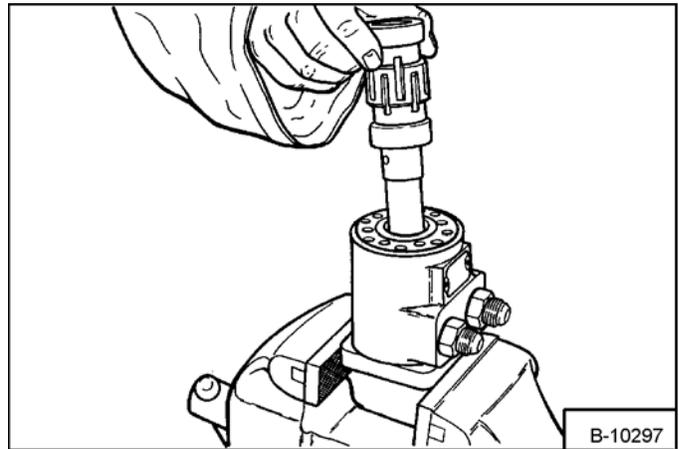
Remove the wear plate [Figure 20-10-17].

Figure 20-10-18



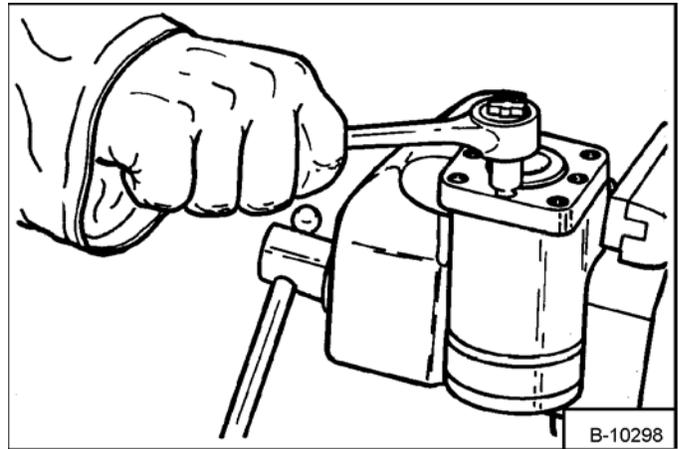
Remove the splined shaft [Figure 20-10-18].

Figure 20-10-19



Remove the output shaft [Figure 20-10-19].

Figure 20-10-20



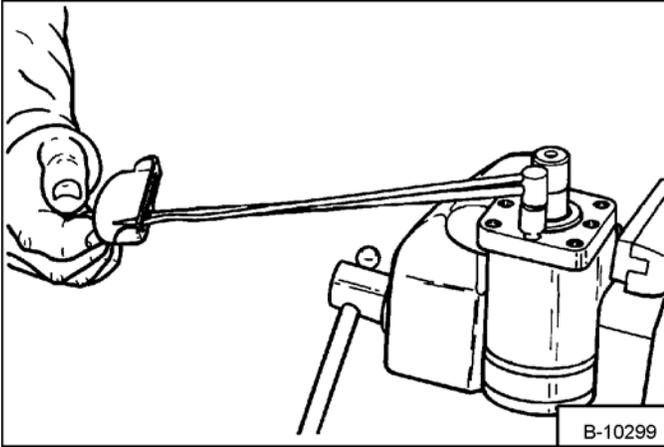
Remove the four bolts from the mounting flange [Figure 20-10-20].

**NOTE:** The bolts will require approximately 300-400 in.-lb. (34-45 N•m) torque to loosen. If higher torque is required, put a small amount of heat on the housing near the bolts to loosen the thread adhesive (LOCTITE).

## HYDRAULIC MOTOR (CONT'D)

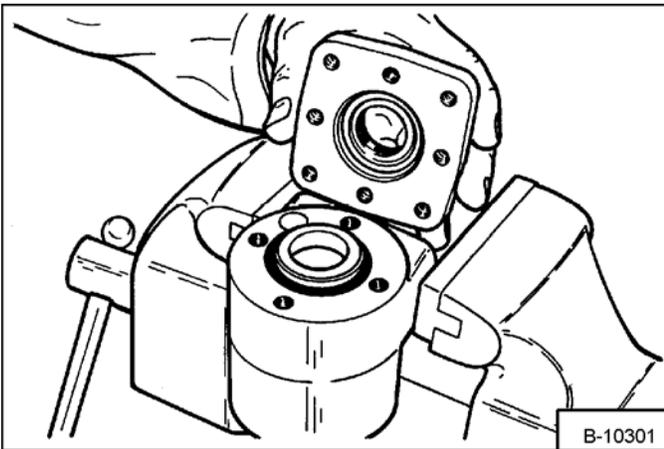
### Disassembly And Assembly (Cont'd)

Figure 20-10-21



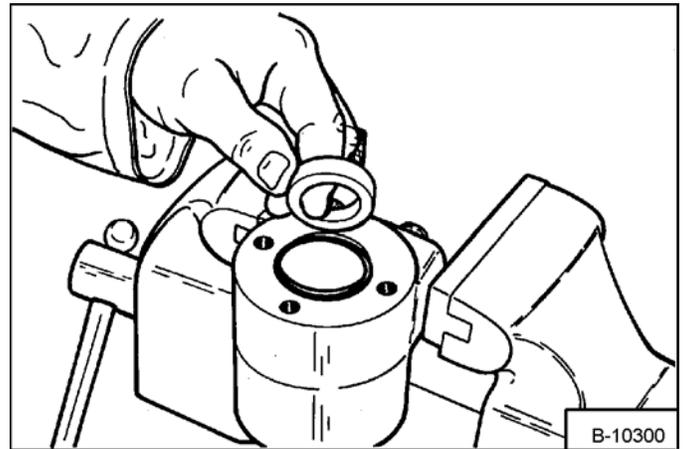
**Installation:** Put thread adhesive (LOCTITE 242) on the bolts. Install the bolts and alternately tighten each bolt to 250 in.-lb. (28 N•m) [Figure 20-10-21].

Figure 20-10-22



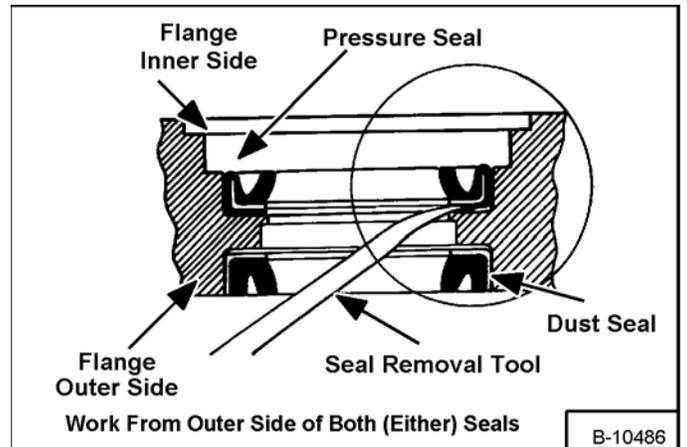
Remove the mounting flange [Figure 20-10-22].

Figure 20-10-23



Remove the bearing race and O-ring [Figure 20-10-23].

Figure 20-10-24



Remove the seals from the mounting flange [Figure 20-10-24].

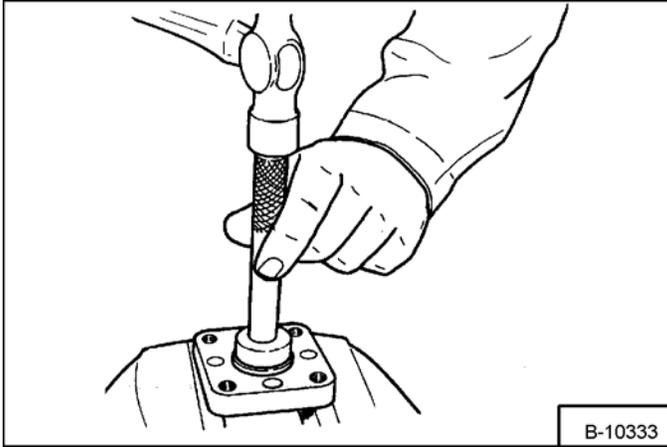
**HYDRAULIC MOTOR (CONTD)**

**Disassembly And Assembly (Cont'd)**

**Timing The Hydraulic Motor**

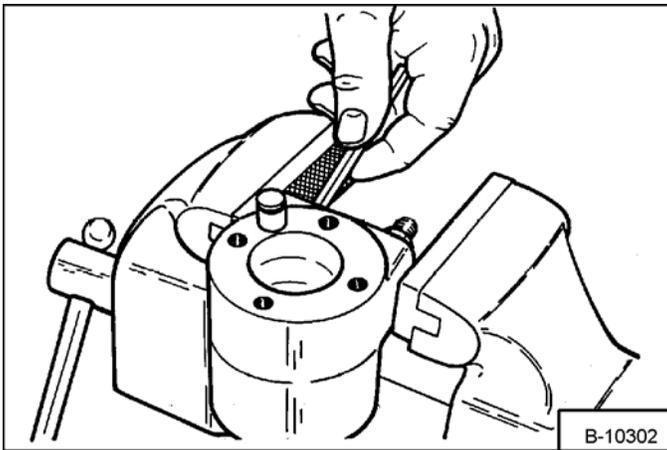
**Figure 20-10-27**

**Figure 20-10-25**



**Installation:** Use the correct size driver tool, install both seals [Figure 20-10-25].

**Figure 20-10-26**



Remove the hose fitting. Use a small allen wrench to remove the plug [Figure 20-10-26].

**Installation:** Always use new O-rings and seals when assembling the hydraulic motor.

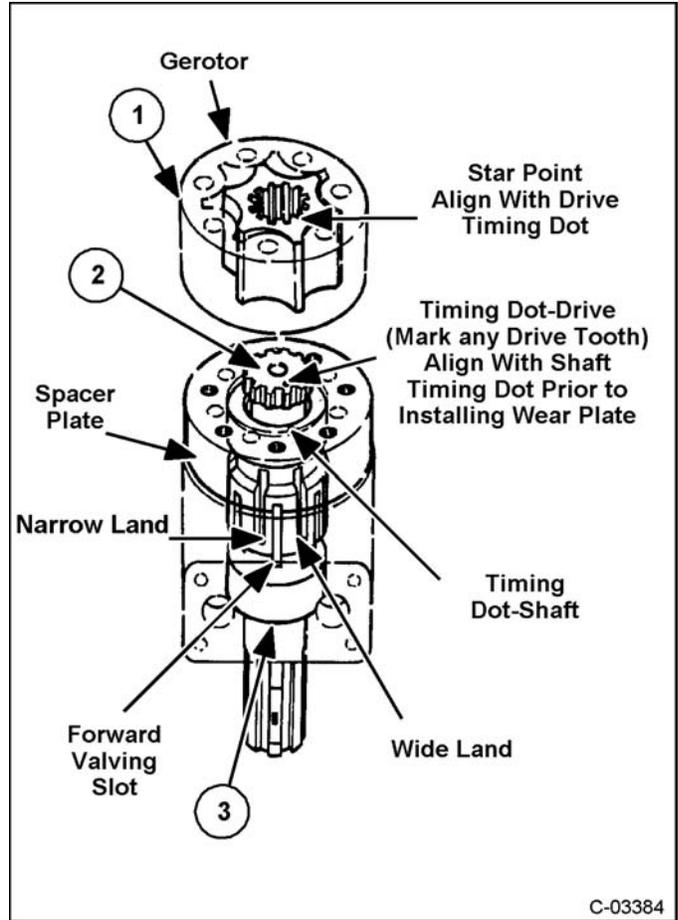
**Inspection**

Clean all parts in solvent and use air pressure to dry them. Do not use cloth or paper because small pieces of material can get into the system and cause damage.

Inspect the gerotor for wear and scratches.

Inspect the wear plate.

Inspect the bearing and race.



The timing of the motor controls the direction of rotation of the drive shaft. The timing parts are as follows [Figure 20-10-27].

1. Gerotor.
2. Splined Drive.
3. Output Shaft.

Locate the timing mark on the output shaft. Install the splined drive and mark any tooth so aligns with the timing mark.

Install the gerotor with any star point aligned with the timing mark.

Turn the gerotor to align the holes for the bolts. Be careful not to disengage the star from the drive or move the gerotor seal.