

## Disassembly and Assembly

### 3064 ENGINE SUPPLEMENT FOR 311 & 312 EXCAVATORS

Media Number -SEN6149-00

Publication Date -01/08/1993

Date Updated -12/10/2001

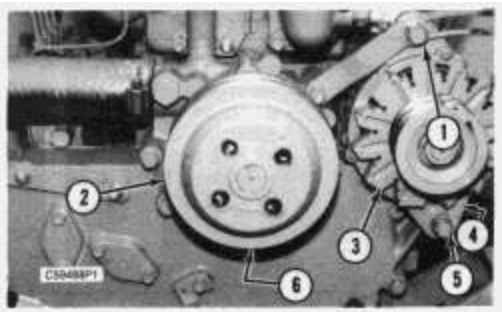
## Water Pump

SMCS - 1361-010; 1361-017

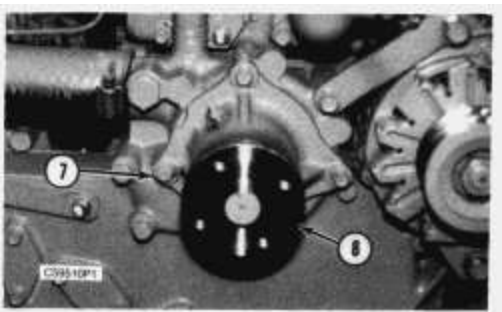
## Remove & Install Water Pump

Start By:

- a. remove fan
- b. remove air conditioning compressor V-belt



1. Loosen bolt (1).
2. Loosen two bolts (4) (not shown) and bolt (5).
3. Push alternator (3) towards the engine.
4. Remove two V-belts (6) (not shown) from the alternator pulley. Check for wear or damage. Replace if necessary.
5. Remove pulley (2).



6. Remove four bolts (7) and washer.

7. Remove water pump (8). Replace O-ring when installing water pump. Apply glycerine to O-ring when installing the water pump to the timing gear case.

**NOTE:** When installing, be sure the grease fitting is facing up and the weep hole is facing down.

**NOTE:** Refer to Specifications Manual, Form No. SENR6134 for the water pump components assembly specifications.

**NOTE:** For installation of the water pump, reverse the removal steps.

---

### NOTICE

**When installing the water pump to the timing gear case make sure that the impeller does not contact the case.**

---

End By:

- a. install air conditioning compressor V-belt
- b. install fan

**NOTE:** Refer to Specifications Manual, Form No. SENR6134 for adjusting the tension for the alternator V-belts.

## Disassemble & Assemble Water Pump

Tools Needed		A	B	C
1P2321	Water Pump Pulley Pulier	1		
1P1861	Retaining Ring Pliers		1	
1P0510	Driver Group			1

---

Start By:

- a. remove water pump

---

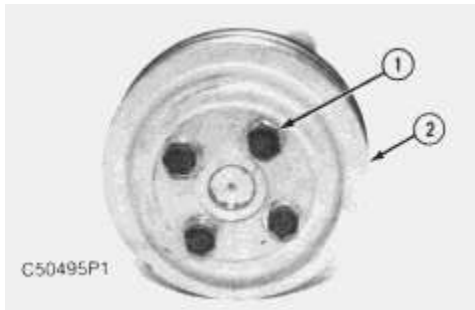
### NOTICE

**Do not reassemble the flange, water pump shaft and impeller more than two times.**

---

**NOTE:** If the water pump housing is heated up to **80° C (176° F)**, the components can be removed easily.

**NOTE:** If the pulley was already removed, proceed to Step 3.

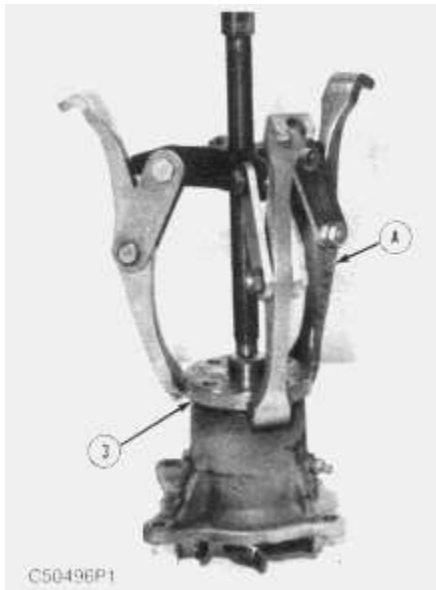


1. Remove four bolts (1) and washers.

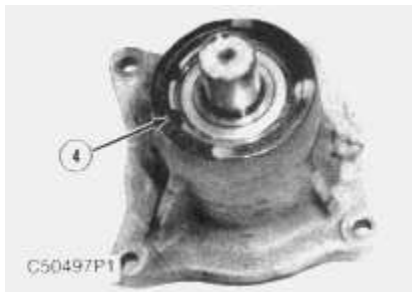
2. Remove pulley (2).

**NOTE:** Check water pump pulley for V-belt groove for wear and damage. Replace if necessary.

**NOTE:** Use Tool (C) in the disassembly and assembly procedures that require the use of a press or hammer.



3. Install Tool (A). Remove flange (3).



4. Use Tool (B) to remove retaining ring (4).