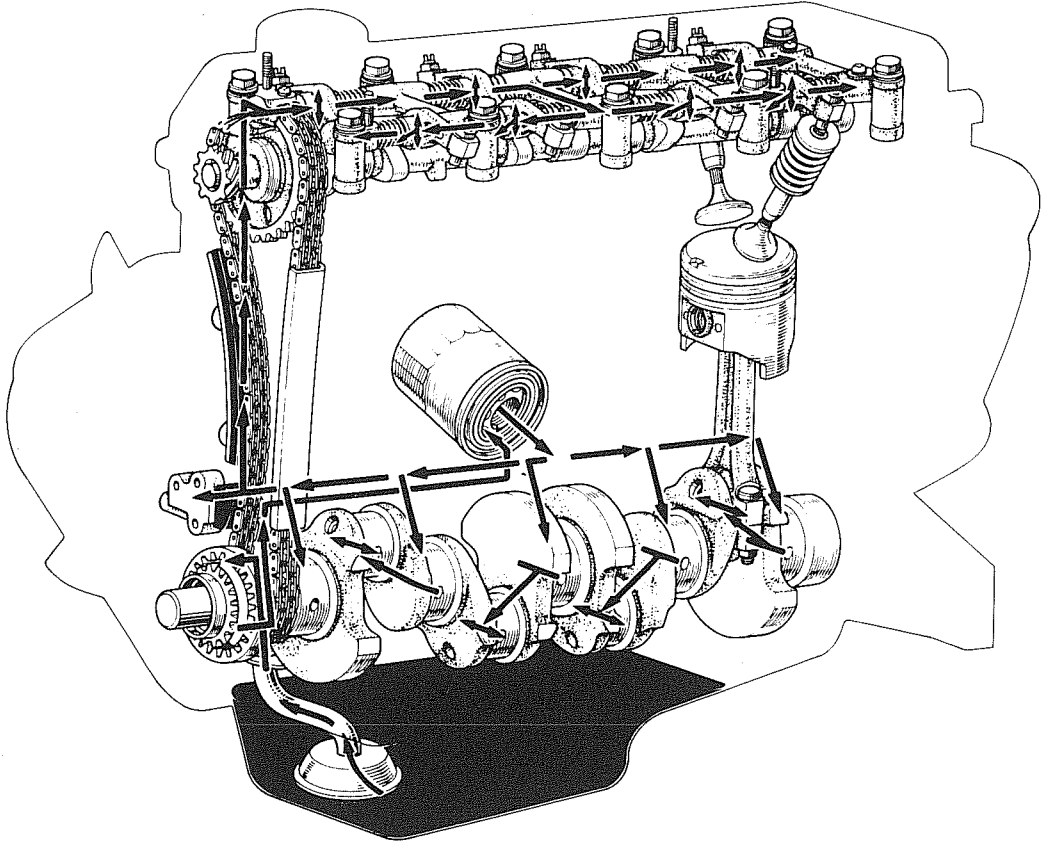


# LUBRICATION SYSTEM

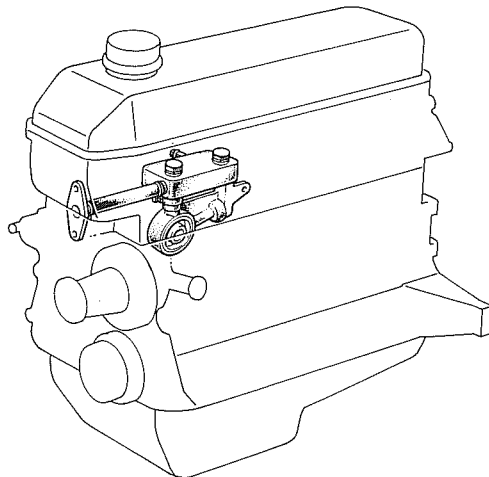
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# LUBRICATION SYSTEM CIRCUIT

Fig. 4-1



**Oil Cooler (RB13 Series)**



# OIL PUMP

## DISASSEMBLY

Disassemble the parts in the numerical order shown in the figure.

Fig. 4-2

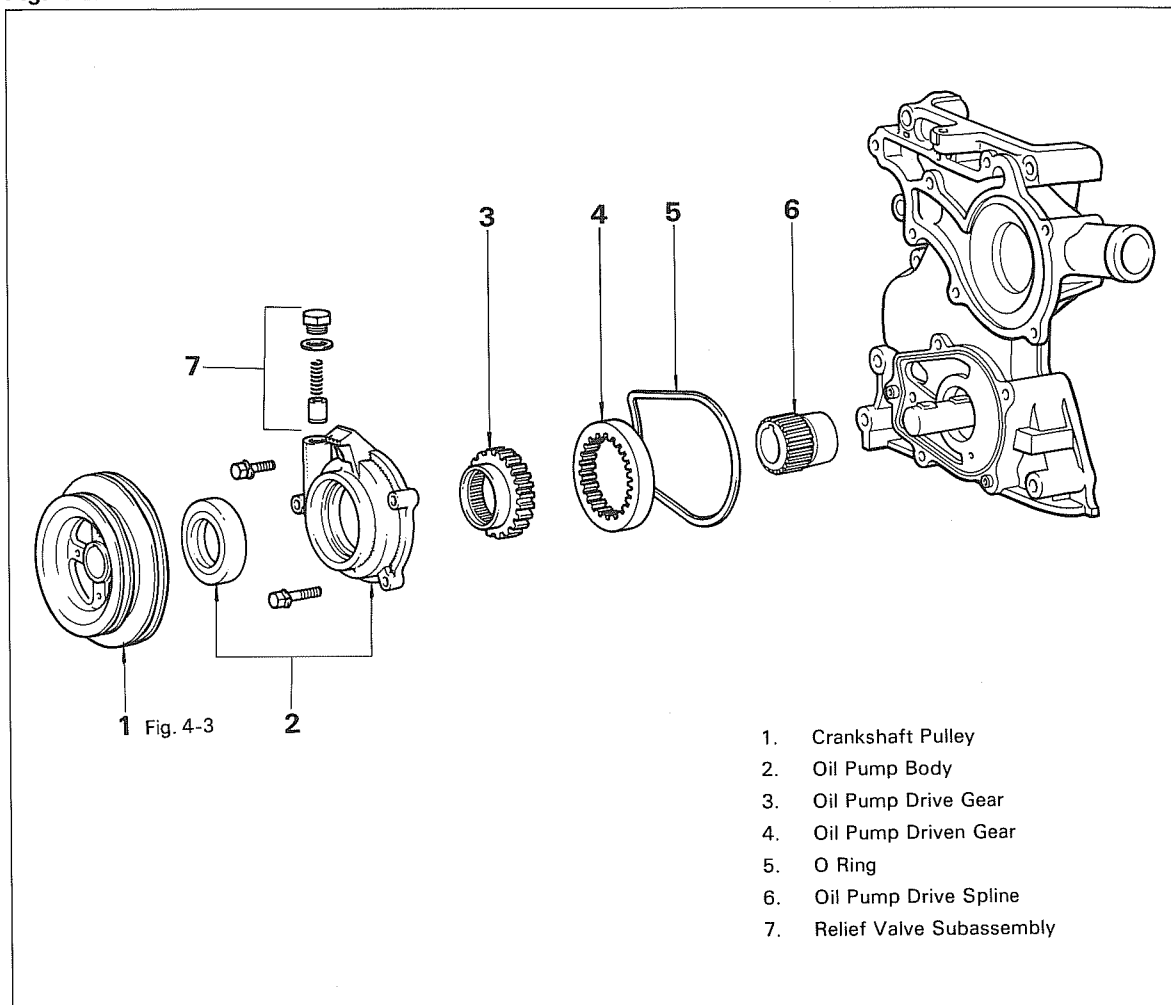
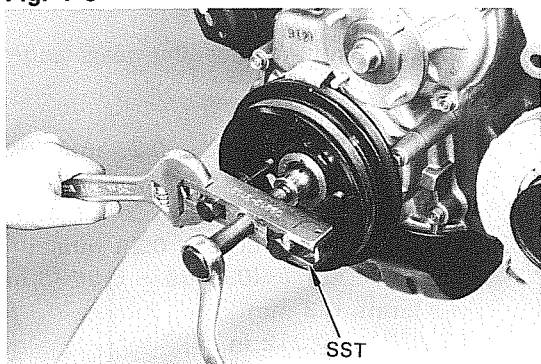
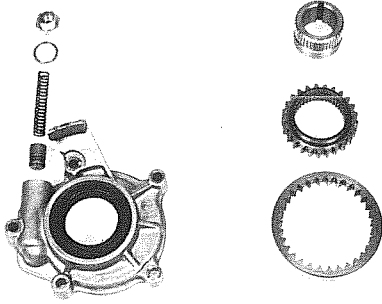


Fig. 4-3



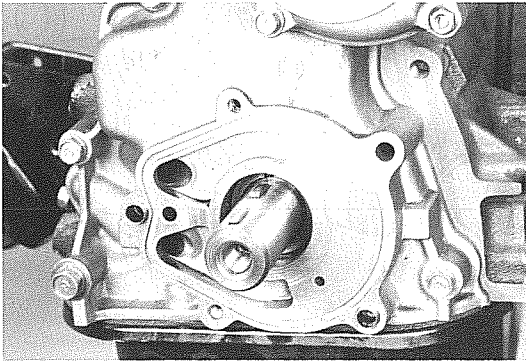
Remove the crankshaft pulley with SST.  
SST [09213-31021]

Fig. 4-4

**INSPECTION & REPAIR**

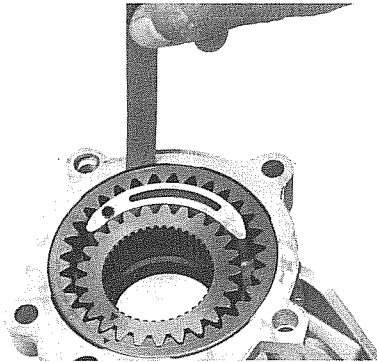
Check the disassembled parts for wear or damage.

Fig. 4-5



Check the contact surfaces of the timing chain cover for wear or damage.

Fig. 4-6



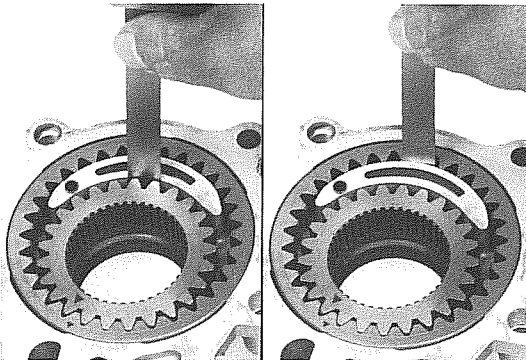
Measure the body clearance.  
If it exceeds limit, replace the gear and/or body.

**Body clearance:**

**STD** 0.09 – 0.15 mm  
(0.0035 – 0.0059 in.)

**Limit** 0.20 mm  
(0.0079 in.)

Fig. 4-7



Measure the tip clearance.  
If it exceeds limit, replace the gears and/or body.

**Tip clearance:**

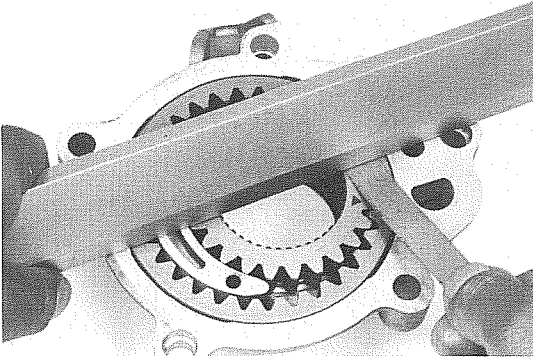
**STD Drive** 0.22 – 0.25 mm  
(0.0087 – 0.0098 in.)

**Driven**

0.15 – 0.21 mm  
(0.0059 – 0.0083 in.)

**Limit** 0.3 mm  
(0.012 in.)

Fig. 4-8



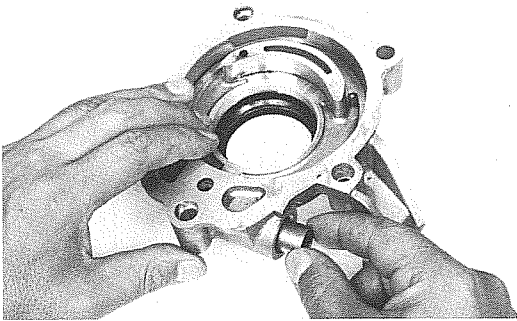
Measure the side clearance.  
If it exceeds limit, replace the gears and/or body.

**Side clearance:**

**STD** 0.03 – 0.09 mm  
(0.0012 – 0.0035 in.)

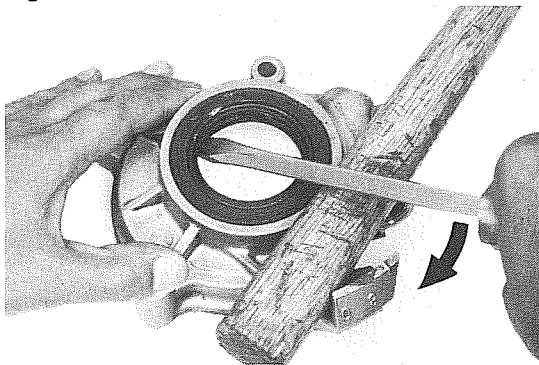
**Limit** 0.15 mm  
(0.0059 in.)

Fig. 4-9



Check the relief valve for wear or scoring and see if it slides smoothly.

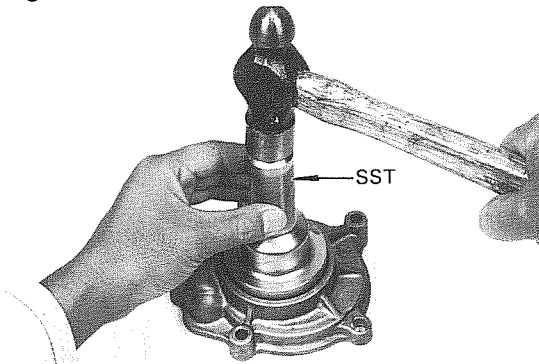
Fig. 4-10



Replace the crankshaft front oil seal.

1. Remove the oil seal with a screwdriver.

Fig. 4-11



2. Install a new oil seal with SST.  
SST [09223-50010]

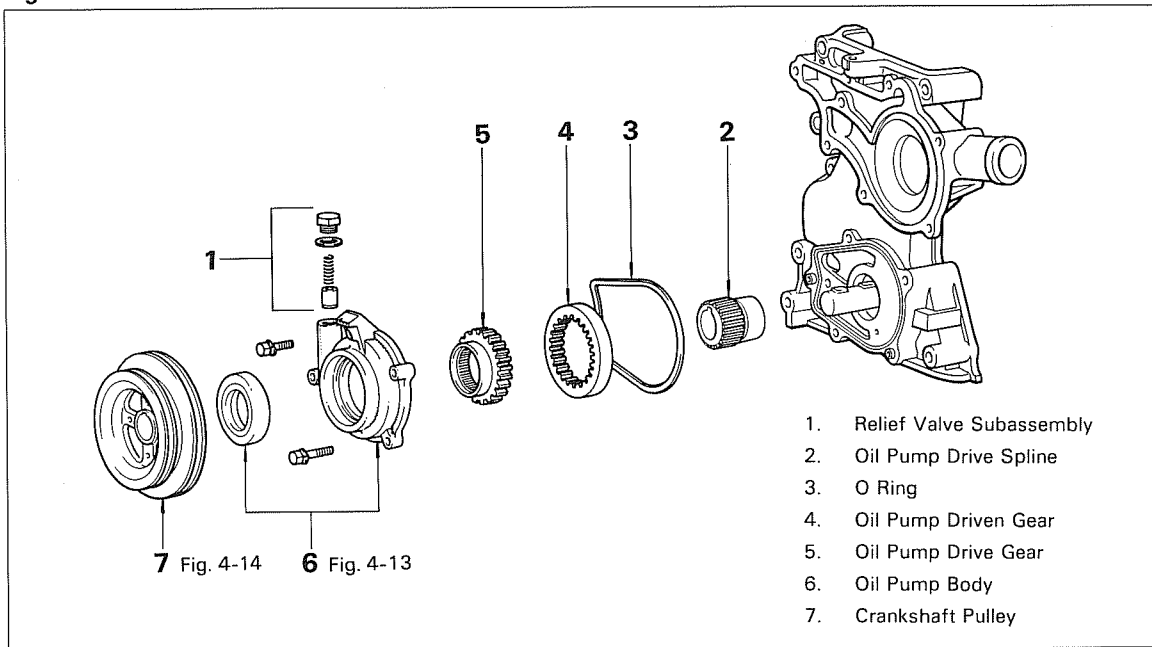
**– Note –**

1. Drive in the oil seal until it is about even with the oil pump body.
2. Be careful not to drive it in slantwise.
3. After driving in the seal, coat the seal lip lightly with MP grease.

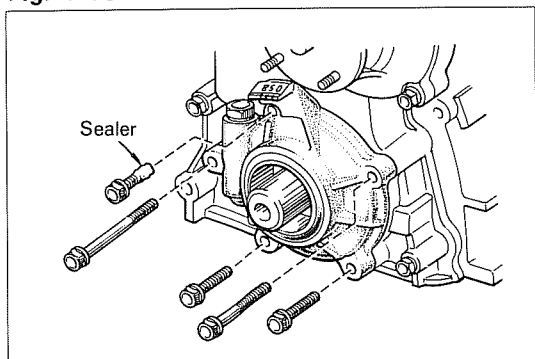
**ASSEMBLY**

Assemble the parts in the numerical order shown in the figure.

**Fig. 4-12**



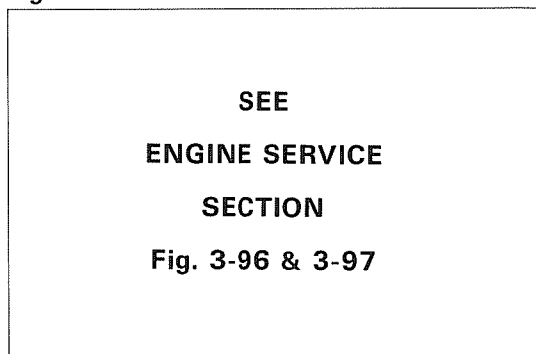
**Fig. 4-13**



Apply the sealer to the upper bolt and tighten five bolts.

**Tightening torque: 1.7 – 2.3 kg-m  
 (13 – 16 ft-lb)**

**Fig. 4-14**



Install the crankshaft pulley.