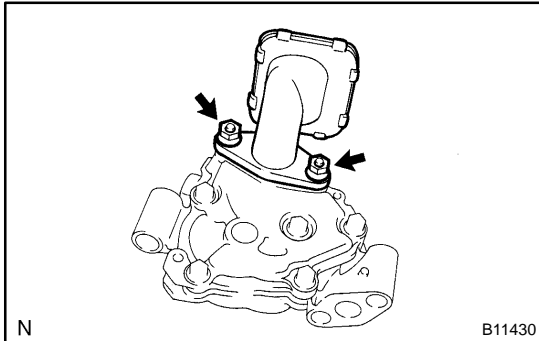
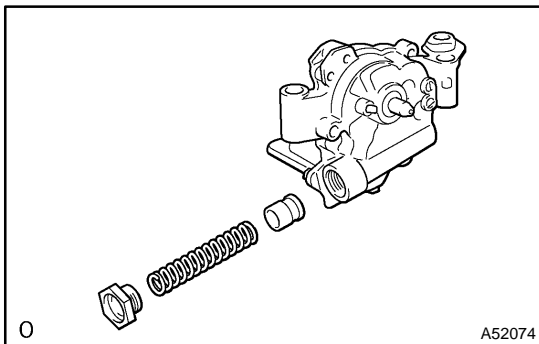


## OVERHAUL



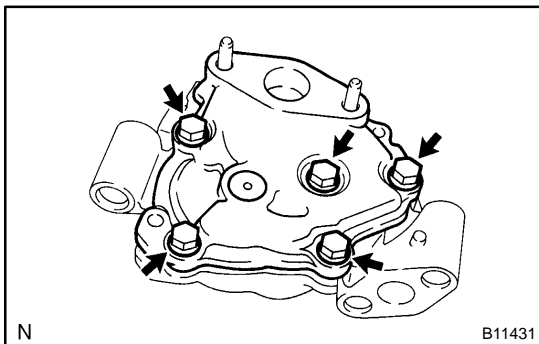
### 1. REMOVE OIL PUMP STRAINER SET

- (a) Remove the 2 nuts and oil pump strainer.



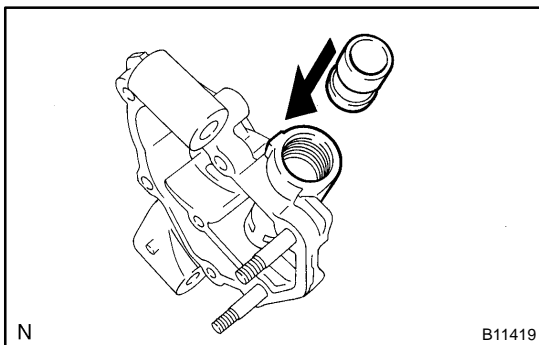
### 2. REMOVE OIL PUMP RELIEF VALVE

- (a) Using a socket wrench (27mm), remove the plug.  
(b) Remove the valve spring and relief valve.



### 3. REMOVE OIL PUMP COVER

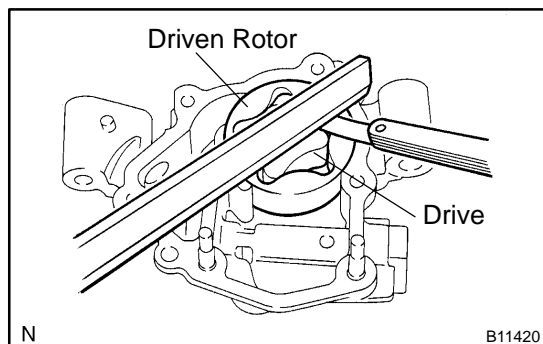
- (a) Remove the 5 bolts and oil pump cover.



### 4. INSPECT OIL PUMP RELIEF VALVE

- (a) Check the relief valve.  
(1) Coat the valve with engine oil and check that the valve falls smoothly into the valve hole by its own weight.

If it does not, replace the relief valve. If necessary, replace the oil pump Assy.



## 5. INSPECT OIL PUMP ROTOR

- (a) Check the clearance between the drive and driven rotor.
- (1) Place a precision straight edge on the top surface of the drive. Insert a feeler gauge between the bottom edge of the precision straight edge and the top surface of the driven rotor. Measure the clearance.

**Specified clearance:**

**0.030 to 0.160 mm (0.0012 to 0.0063 in.)**

If the clearance is greater than the maximum, replace the oil pump assy.

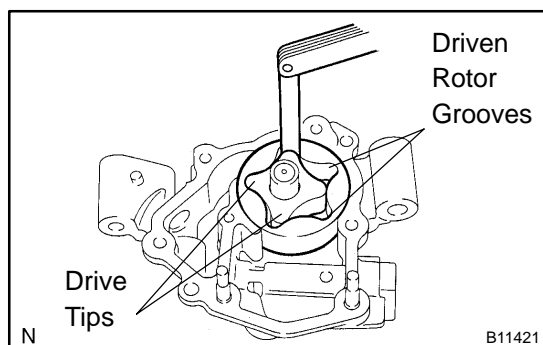
- (b) Check the clearance between the drive tips and driven rotor grooves.

- (1) Insert a feeler gauge between each drive tip and driven rotor groove. Measure the clearance.

**Specified tip clearance:**

**0.080 to 0.350 mm (0.0031 to 0.0138 in.)**

If the tip clearance is greater than the maximum, replace the oil pump assy.



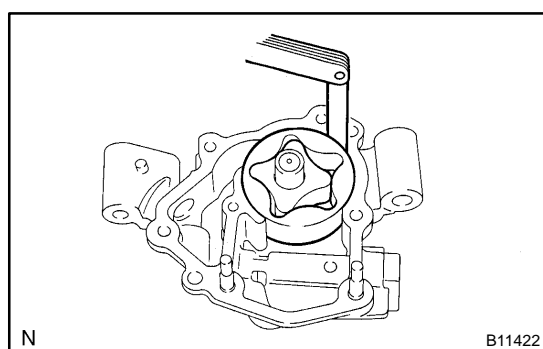
- (c) Check the clearance between the driven rotor and body.
- (1) Insert a feeler gauge between the driven rotor and body. Measure the clearance.

**Specified body clearance:**

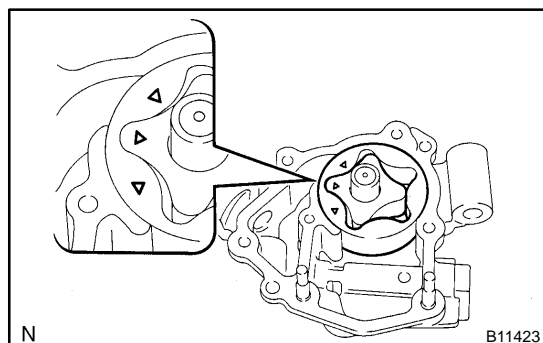
**0.100 to 0.325 mm (0.0039 to 0.0128 in.)**

- (d) Remove the oil pump rotors.

If the body clearance is greater than the maximum, replace the oil pump assy.

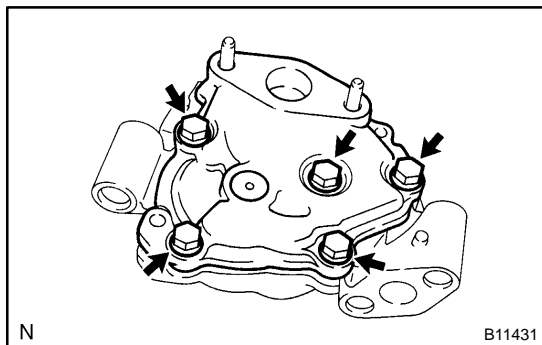


## 6. REMOVE OIL PUMP ROTOR

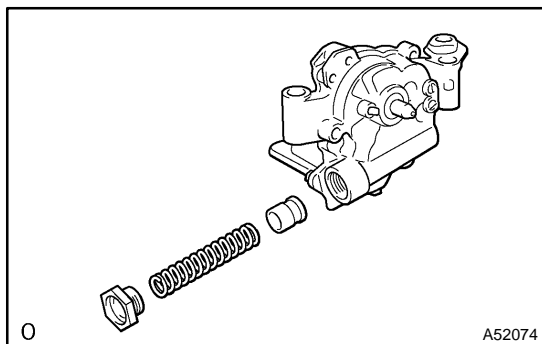


## 7. INSTALL OIL PUMP ROTOR

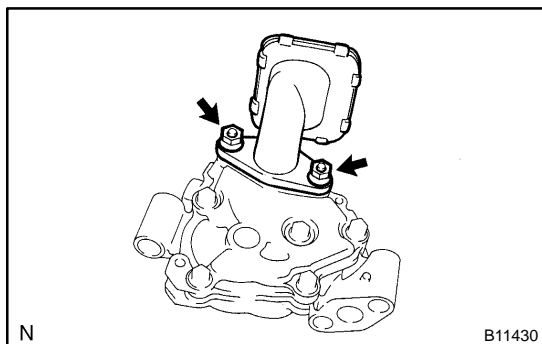
- (a) Coat the drive rotor and driven rotors with engine oil.
- (b) Place the drive and driven rotors into the pump body with the marks facing the pump body cover side.

**8. INSTALL OIL PUMP COVER**

- (a) Install the pump body cover with the 5 bolts.  
**Torque: 8.8 N·m (90 kgf·cm, 79 in·lbf)**

**9. INSTALL OIL PUMP RELIEF VALVE**

- (a) Coat the relief valve with engine oil.  
(b) Insert the relief valve and spring into the pump body hole.  
(c) Using a socket wrench (27 mm), install the plug.

**10. INSTALL OIL PUMP STRAINER SET**

- (a) Place a new gasket on the oil pump.  
(b) Install the oil strainer with the 2 nuts.  
**Torque: 8.8 N·m (90 kgf·cm, 79 in·lbf)**