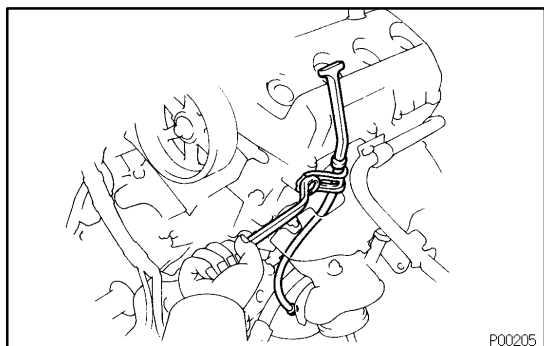


## REMOVAL

### HINT:

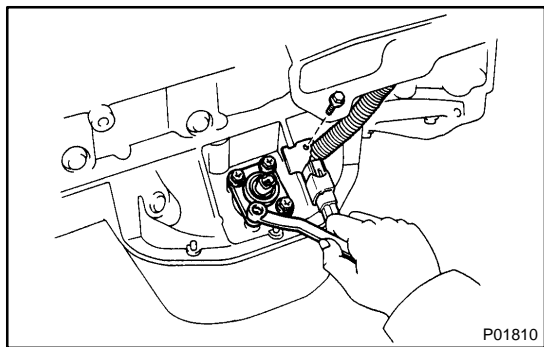
When repairing the oil pump, the oil pan and strainer should be removed and cleaned.

1. **REMOVE ENGINE WITH TRANSMISSION**  
(See page [EM-87](#))
2. **SEPARATE ENGINE AND TRANSMISSION** (See page [EM-87](#))
3. **INSTALL ENGINE TO ENGINE STAND FOR REMOVAL**
4. **REMOVE TIMING BELT** (See page [EM-18](#))



### 5. REMOVE OIL DIPSTICK AND GUIDE

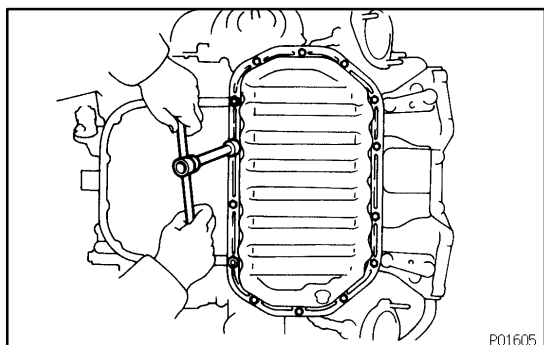
- (a) Remove the bolt holding the oil dipstick to the LH cylinder head.
- (b) Pull out the dipstick guide together with the dipstick from the No. 1 oil pan.
- (c) Remove the O-ring from the dipstick guide.



### 6. REMOVE BRACKET OF HEATED OXYGEN SENSOR (BANK 1 SENSOR 1) CONNECTOR FROM NO. 1 OIL PAN

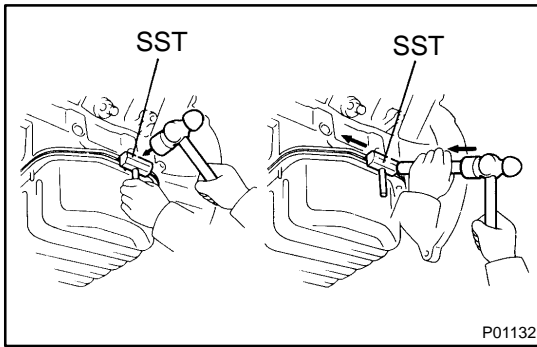
### 7. REMOVE OIL LEVEL SENSOR

- (a) Disconnect the level sensor connector.
- (b) Remove the 4 bolts, and disconnect the engine wire bracket.
- (c) Remove the level sensor.
- (d) Remove the gasket from the level sensor.



### 8. REMOVE NO. 2 OIL PAN

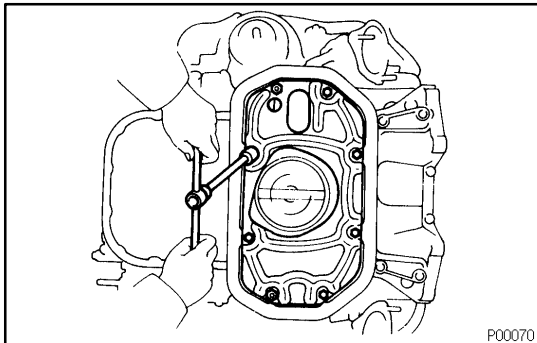
- (a) Remove the 12 bolts and 2 nuts.



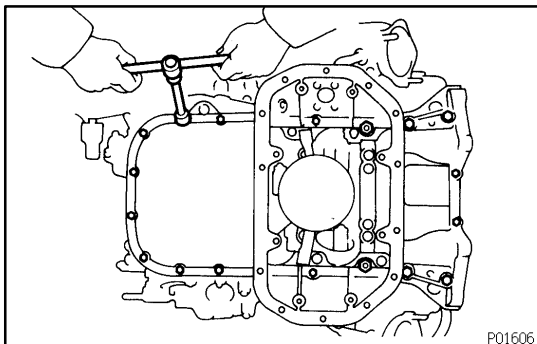
- (b) Insert the blade of SST between the No. 1 and No. 2 oil pans, cut off applied sealer and remove the No.2 oil pan.  
SST 09032-00100

**NOTICE:**

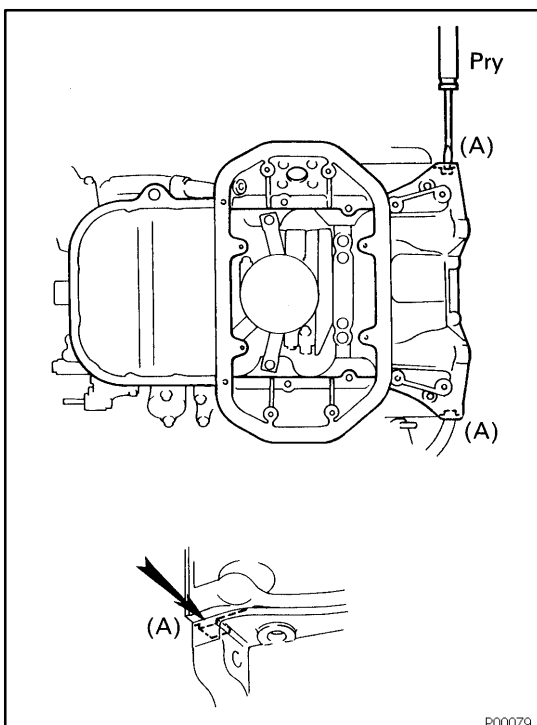
- Be careful not to damage the No. 2 oil pan contact surface of the No. 1 oil pan.
- Be careful not to damage the No. 2 oil pan flange.

**9. REMOVE OIL PAN BAFFLE PLATE**

Remove the 6 bolts, 2 nuts and baffle plate.

**10. REMOVE NO. 1 OIL PAN**

- (a) Remove the 16 bolts and 2 nuts.



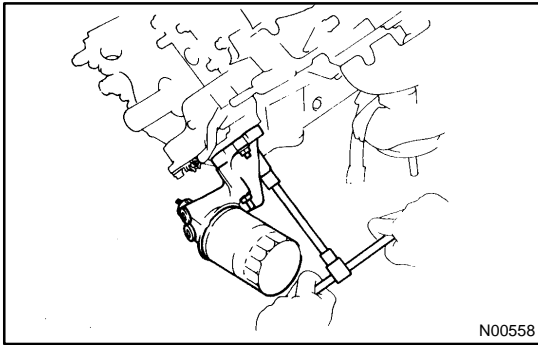
- (b) Using a screwdriver, remove the No. 1 oil pan by prying the portions (A) between the cylinder block and No. 1 oil pan.

**NOTICE:**

**Be careful not to damage the contact surfaces of the cylinder block and No. 1 oil pan.**

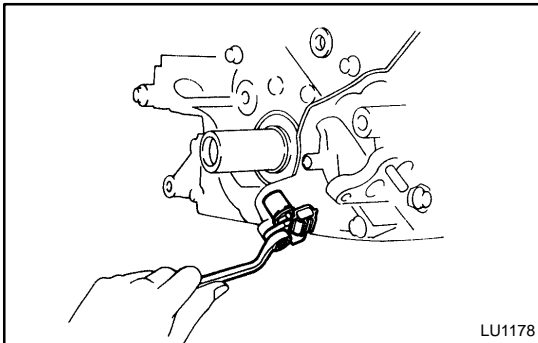
**11. REMOVE OIL STRAINER**

Remove the 2 bolts, 2 nuts, oil strainer and gasket.



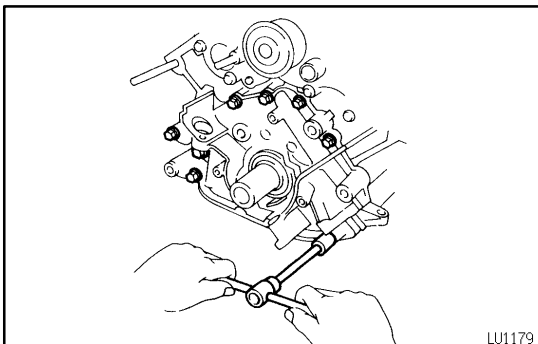
## 12. REMOVE OIL FILTER AND FILTER BRACKET ASSEMBLY

- (a) Disconnect the oil pressure switch connector.
- (b) Remove the stud bolt and bolt, nut the oil filter and filter bracket assembly.
- (c) Remove the gasket from the filter bracket.



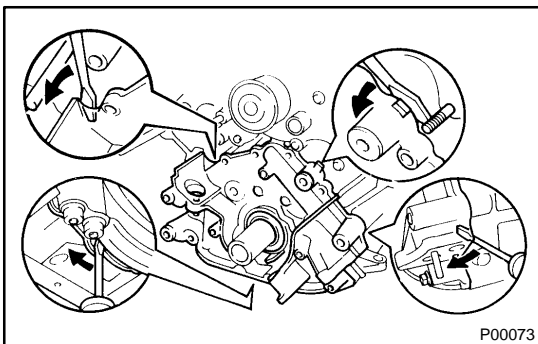
## 13. REMOVE CRANKSHAFT POSITION SENSOR

- (a) Disconnect the crankshaft position sensor connector.
- (b) Remove the bolt and crankshaft position sensor.



## 14. REMOVE OIL PUMP

- (a) Remove the 8 bolts.



- (b) Using a screwdriver, remove the oil pump by prying the portions between the oil pump and cylinder block.

### NOTICE:

**Be careful not to damage the contact surfaces of the cylinder block and oil pump.**

- (c) Remove the O-ring from the cylinder block.