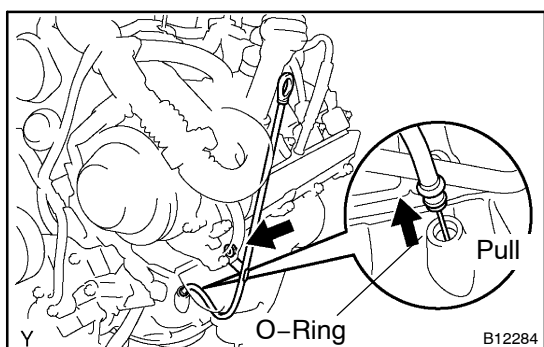


REMOVAL

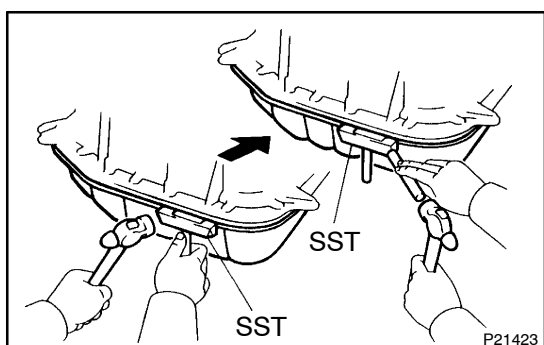
HINT:

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

1. **REMOVE ENGINE AND TRANSMISSION ASSEMBLY FROM VEHICLE** (See page EM-85)
2. **SEPARATE ENGINE AND TRANSMISSION** (See page EM-85)
3. **INSTALL ENGINE TO ENGINE STAND FOR DIS-ASSEMBLY**
4. **REMOVE TIMING BELT** (See page EM-18)
5. **REMOVE NO.1 IDLER PULLEY** (See page EM-18)
6. **REMOVE NO.2 IDLER PULLEY** (See page EM-18)
7. **REMOVE CRANKSHAFT TIMING PULLEY** (See page EM-18)



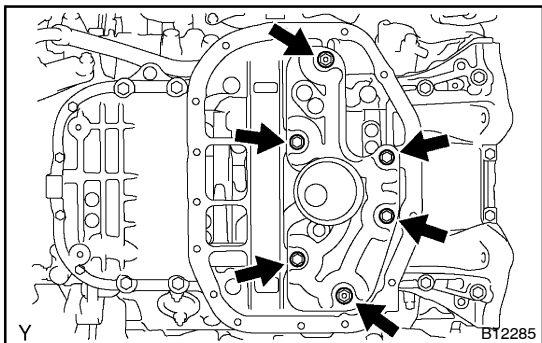
8. **REMOVE OIL DIPSTICK AND GUIDE**
 - (a) Remove the bolt holding the oil dipstick to the LH cylinder head.
 - (b) Pull out the dipstick guide together with the dipstick from the No.1 oil pan.
 - (c) Remove the O-ring from the dipstick guide.
9. **REMOVE OIL LEVEL SENSOR**
 - (a) Remove the 4 bolts and level sensor.
 - (b) Remove the gasket from the level sensor.
10. **REMOVE FILTER BRACKET ASSEMBLY**
 - (a) Disconnect the 2 water bypass hoses from the oil cooler.
 - (b) Disconnect the oil pressure switch connector.
 - (c) Remove the stud bolt, 2 nuts, the filter bracket assembly with the oil filter and oil cooler.
 - (d) Remove the gasket from the filter bracket.
11. **REMOVE CRANKSHAFT POSITION SENSOR**
 - (a) Disconnect the position sensor connector.
 - (b) Remove the bolt and position sensor.



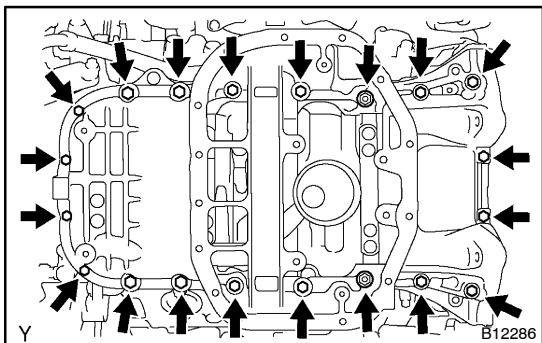
12. **REMOVE NO.2 OIL PAN**
 - (a) Remove the 13 bolts and 2 nuts.
 - (b) Insert the blade of SST between the No.1 and No.2 oil pans, cut off applied sealer and remove the No.2 oil pan.
SST 09032-00100

NOTICE:

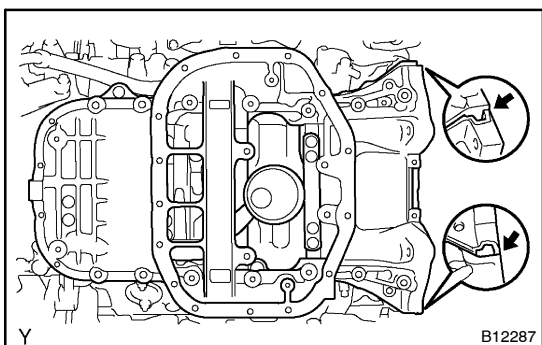
- Be careful not to damage the No.2 oil pan contact surface of the No.1 oil pan.
- Be careful not to damage the No.2 oil pan flange.

**13. REMOVE OIL PAN BAFFLE PLATE**

Remove the 4 bolts, 2 nuts and baffle plate.

**14. REMOVE NO.1 OIL PAN**

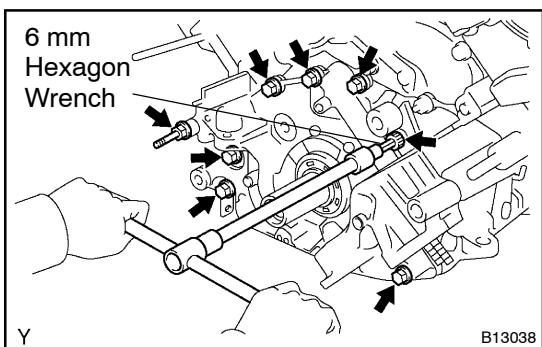
(a) Remove the 18 bolts and 2 nuts.



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

15. REMOVE OIL STRAINER

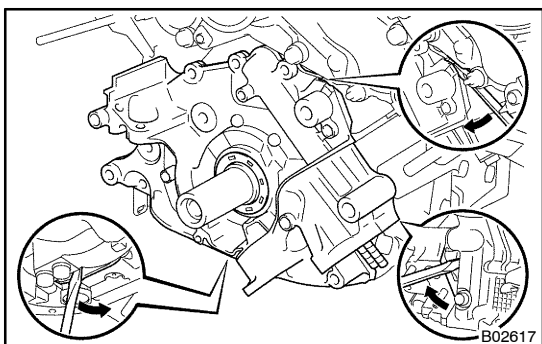
Remove the 2 bolts, 2 nuts, oil strainer and gasket.

**16. REMOVE OIL PUMP**

(a) Remove the 8 bolts.

HINT:

Use a 6 mm hexagon wrench for the hexagon head bolt.



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

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