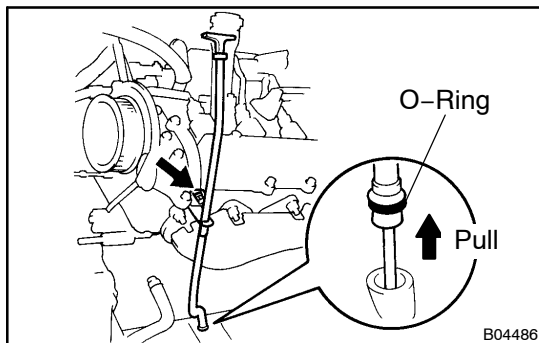


REMOVAL

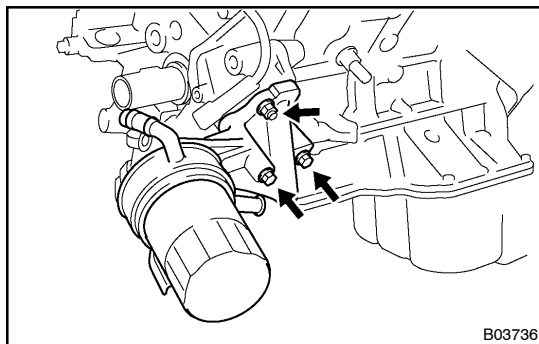
HINT:

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

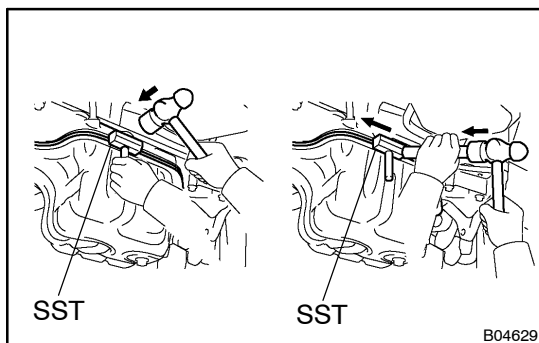
1. **REMOVE ENGINE FROM VEHICLE**
(See page [EM-102](#))
2. **INSTALL ENGINE TO ENGINE STAND FOR DIS-ASSEMBLY**
3. **REMOVE TIMING BELT** (See page [EM-15](#))
4. **REMOVE NO.1 IDLER PULLEYS** (See page [EM-15](#))
5. **REMOVE NO.2 IDLER PULLEYS** (See page [EM-15](#))
6. **REMOVE CRANKSHAFT TIMING PULLEY**
(See page [EM-15](#))



7. **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.



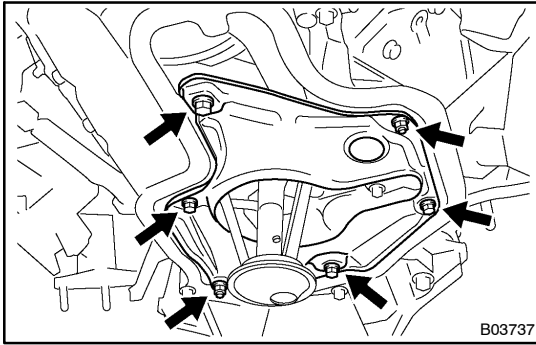
8. **REMOVE OIL FILTER, OIL COOLER AND FILTER BRACKET ASSEMBLY**
 - (a) Disconnect the oil pressure switch connector.
 - (b) Remove the 2 bolts, nut, and oil filter, oil cooler and filter bracket assembly.
 - (c) Remove the gasket from the filter bracket.
9. **REMOVE CRANKSHAFT POSITION SENSOR**
(See page [IG-12](#))



10. **REMOVE NO.2 OIL PAN**
 - (a) Remove the 20 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

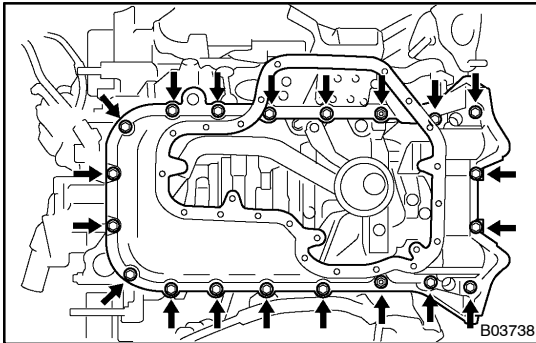
NOTICE:

- **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.**



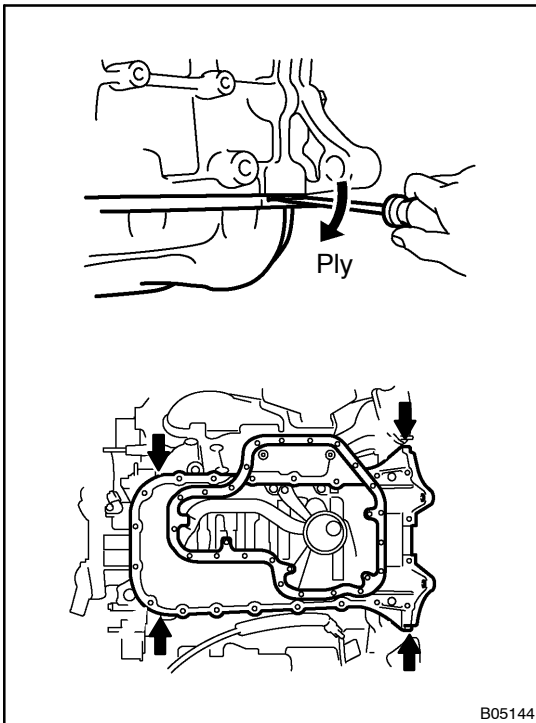
11. REMOVE OIL PAN BAFFLE PLATE

Remove the 4 bolts, 2 nuts and baffle plate.



12. REMOVE NO.1 OIL PAN

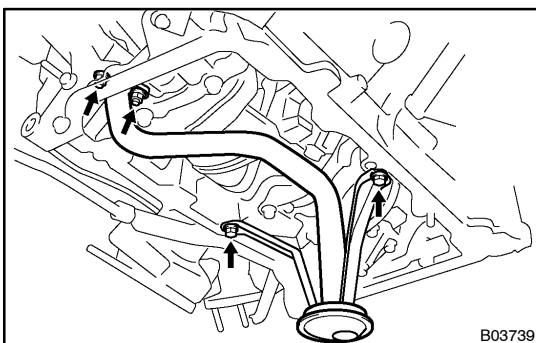
(a) Remove the 18 bolts and 2 nuts.



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

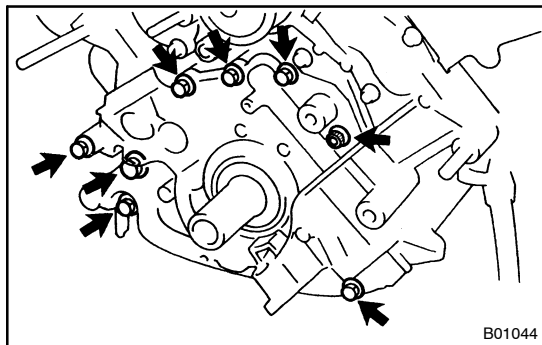
NOTICE:

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



13. REMOVE OIL STRAINER

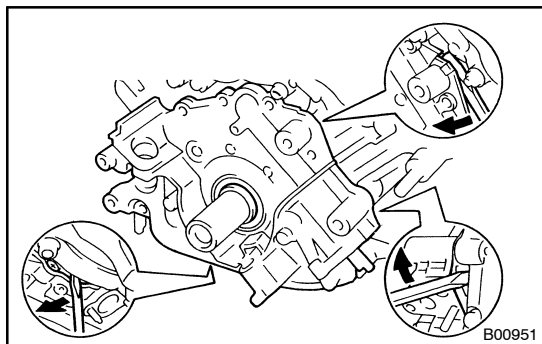
Remove the 2 bolts, 2 nuts, oil strainer and gasket.

**14. 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.

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.