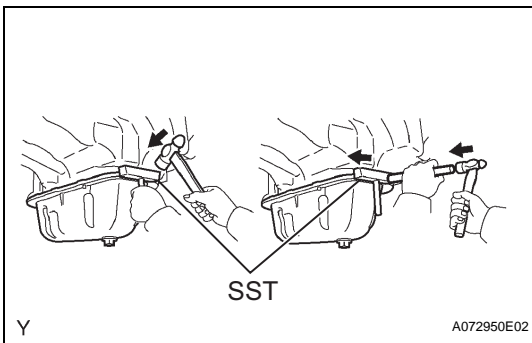
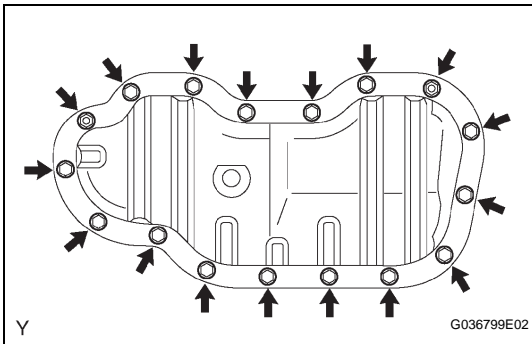


REMOVAL

1. **DISCHARGE FUEL SYSTEM PRESSURE**
(See page [FU-1](#))
2. **REMOVE BATTERY**
3. **DRAIN ENGINE COOLANT** (See page [CO-3](#))
4. **DRAIN ENGINE OIL** (See page [LU-4](#))
5. **REMOVE ENGINE ASSEMBLY**
(See page [EM-186](#))
6. **REMOVE OIL LEVEL GAGE GUIDE**
 - (a) Remove the oil level gauge.
 - (b) Remove the bolt and pull out the oil level gauge guide.
 - (c) Remove the O-ring from the oil level gauge guide.
7. **REMOVE WATER INLET** (See page [CO-9](#))
8. **REMOVE V-RIBBED BELT TENSIONER ASSEMBLY**
(See page [EM-44](#))
9. **REMOVE NO.2 IDLER PULLEY SUB-ASSEMBLY**
 - (a) Remove the 2 bolts, then remove the idler pulley No. 2.
10. **REMOVE NO.1 IDLER PULLEY SUB-ASSEMBLY**
 - (a) Remove the bolt, then remove the idler pulley No. 1.
11. **REMOVE CRANKSHAFT PULLEY** (See page [EM-45](#))
12. **REMOVE NO.2 OIL PAN SUB-ASSEMBLY**
 - (a) Remove the 15 bolts and 2 nuts.

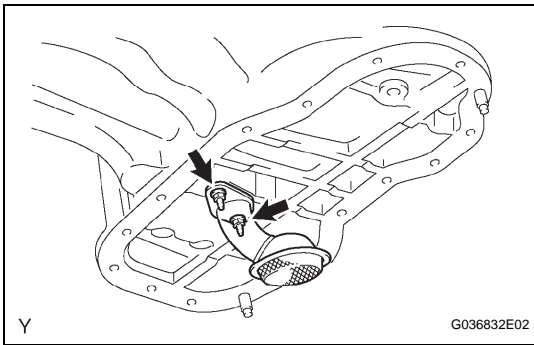


- (b) Insert the blade of SST between the oil pan and oil pan No. 2, cut off applied sealer and remove the oil pan No. 2.

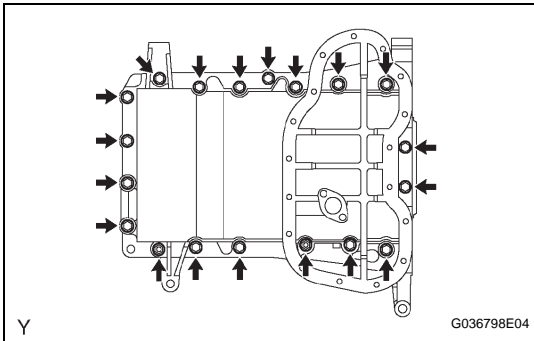
SST 09032-00100

NOTICE:

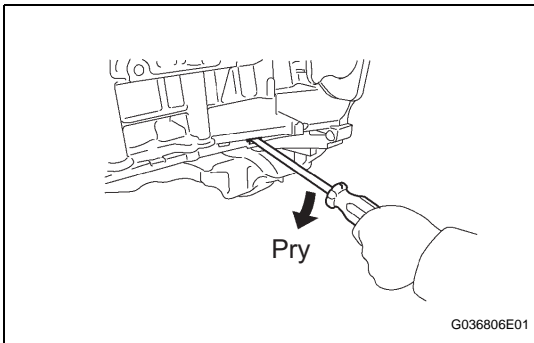
- Be careful not to damage the contact surfaces of the oil pan and oil pan No. 2

**13. REMOVE OIL STRAINER SUB-ASSEMBLY**

- (a) Remove the 2 nuts, then remove the oil strainer and gasket.

**14. REMOVE OIL PAN SUB-ASSEMBLY**

- (a) Remove the 17 bolts and 2 nuts.

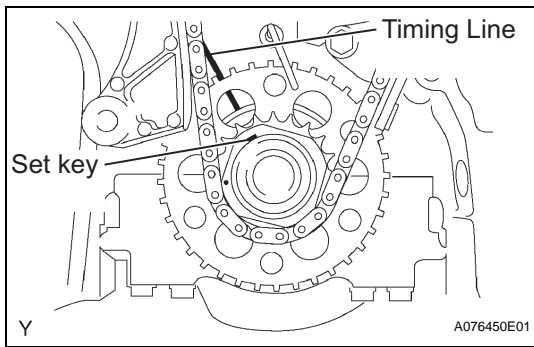


- (b) Using a screwdriver, remove the oil pan by prying between the oil pan and cylinder block.

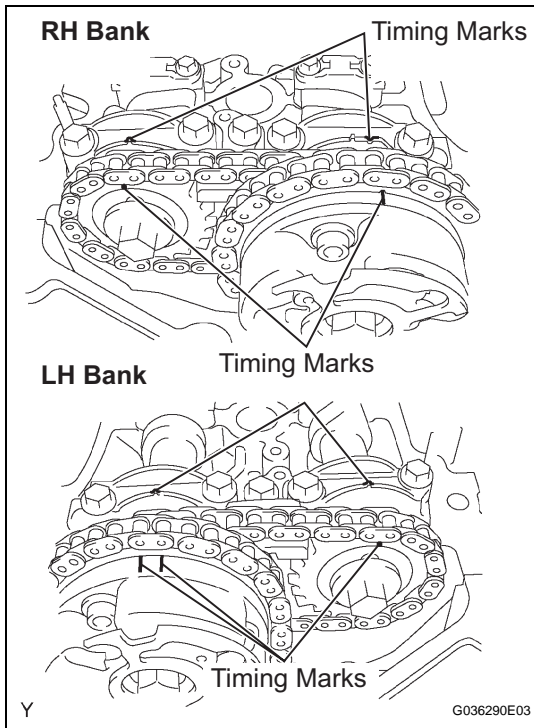
NOTICE:

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

15. REMOVE INTAKE AIR SURGE TANK (See page [EM-57](#))**16. REMOVE IGNITION COIL ASSEMBLY (See page [IG-7](#))****17. REMOVE CYLINDER HEAD COVER SUB-ASSEMBLY (See page [EM-59](#))****18. REMOVE CYLINDER HEAD COVER SUB-ASSEMBLY LH (See page [EM-59](#))****19. REMOVE CAMSHAFT TIMING OIL CONTROL VALVE ASSEMBLY (See page [ES-407](#))****20. REMOVE VVT SENSOR (See page [IG-8](#))****21. REMOVE TIMING CHAIN OR BELT COVER SUB-ASSEMBLY (See page [LU-17](#))****22. REMOVE TIMING GEAR CASE OR TIMING CHAIN CASE OIL SEAL (See page [EM-236](#))**

**23. SET NO.1 CYLINDER TO TDC/COMPRESSION**

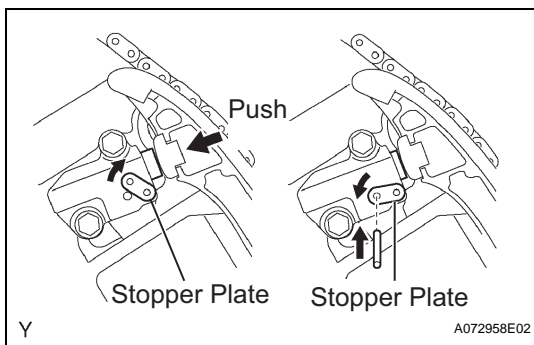
- (a) Using the crankshaft pulley set bolt, turn the crankshaft to align the crankshaft set key with the timing line of the cylinder block.



- (b) Check that the timing marks of the camshaft timing gears are aligned with the timing marks of the bearing cap as shown in the illustration. If not, turn the crankshaft 1 complete revolution (360°) and align the timing marks as above.

24. REMOVE NO.1 CHAIN TENSIONER ASSEMBLY
NOTICE:

- Never rotate the crankshaft with the chain tensioner removed.
- When rotating the camshaft with the timing chain removed, rotate the crankshaft counterclockwise 40° from the TDC first.



- (a) While turning the stopper plate of the tensioner upward, push in the plunger of the chain tensioner as shown in the illustration.
- (b) While turning the stopper plate of the tensioner down ward, insert a bar of ϕ 3.5 mm (0.138) into the holes in the stopper plate and tensioner to fix the stopper plate.
- (c) Remove the 2 bolts, then remove the chain tensioner.

25. REMOVE CHAIN TENSIONER SLIPPER**26. REMOVE IDLE SPROCKET ASSEMBLY**

- (a) Using a 10 mm hexagon wrench, remove the idle gear shaft No. 2, idle gear No. 1 and idle gear shaft No. 1.

27. REMOVE NO.2 CHAIN VIBRATION DAMPER

- (a) Remove the 2 chain vibration dampers No. 2.

28. REMOVE CHAIN SUB-ASSEMBLY