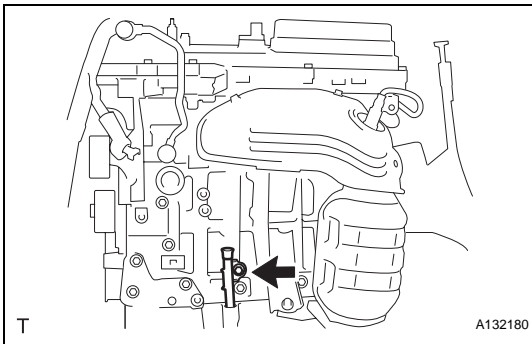
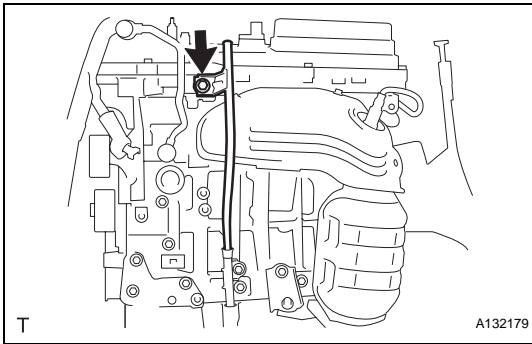
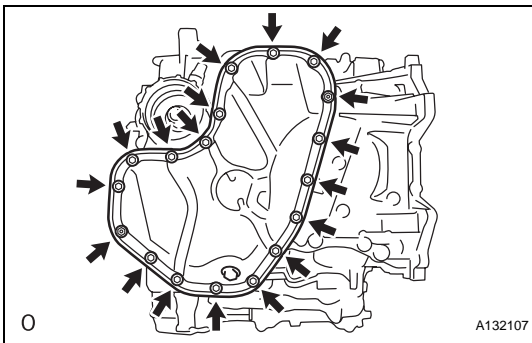


REMOVAL

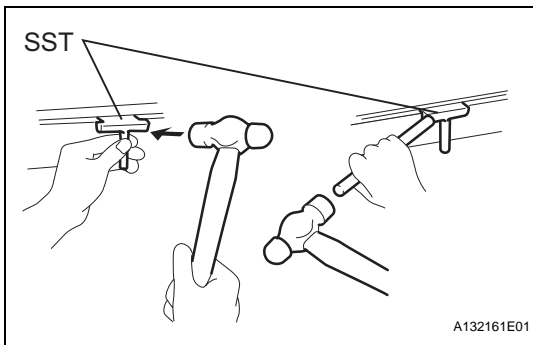
1. **DISCHARGE FUEL SYSTEM PRESSURE** (See page [FU-9](#))
2. **DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL**
CAUTION:
 Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to prevent airbag and seat belt pretensioner activation.
3. **REMOVE ENGINE ASSEMBLY**
 (a) Remove the engine from the vehicle (see page [EM-21](#)).
4. **INSTALL ENGINE TO STAND**
5. **REMOVE NO. 2 OIL DIPSTICK GUIDE**
 (a) Remove the oil dipstick.
 (b) Remove the bolt and dipstick guide.



6. **REMOVE OIL DIPSTICK GUIDE**
 (a) Remove the bolt and dipstick guide.
7. **REMOVE OIL FILTER CAP ASSEMBLY** (See page [LU-4](#))
8. **REMOVE OIL FILTER ELEMENT KIT** (See page [LU-5](#))



9. **REMOVE NO. 2 OIL PAN SUB-ASSEMBLY**
 (a) Remove the 16 bolts and 2 nuts.

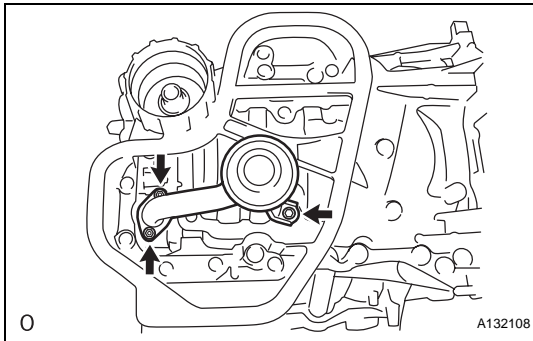


- (b) Insert the blade of SST between the oil pan, cut through the applied sealer and remove the oil pan.

SST 09032-00100

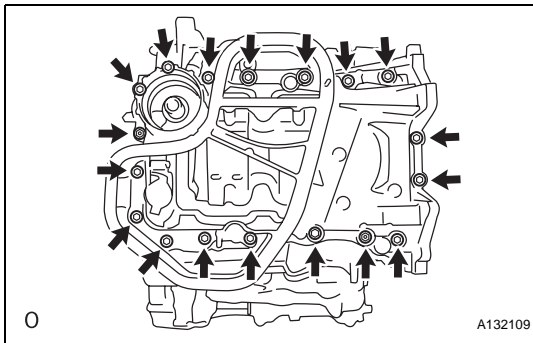
NOTICE:

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



10. REMOVE OIL STRAINER SUB-ASSEMBLY

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

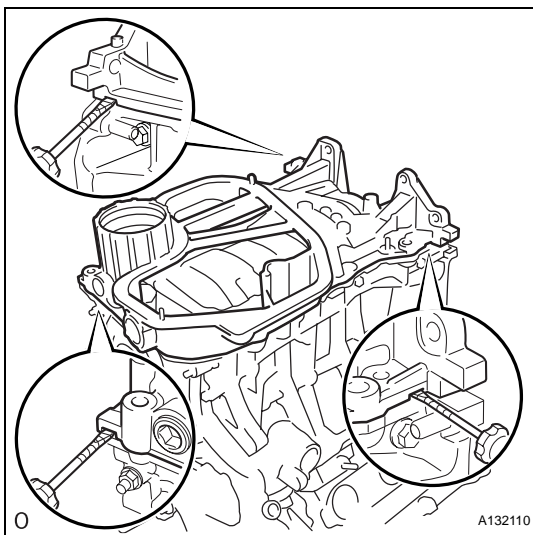


11. REMOVE OIL PAN SUB-ASSEMBLY

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

HINT:

Be sure to clean the bolts and stud bolts and check the threads for cracks or other damage.



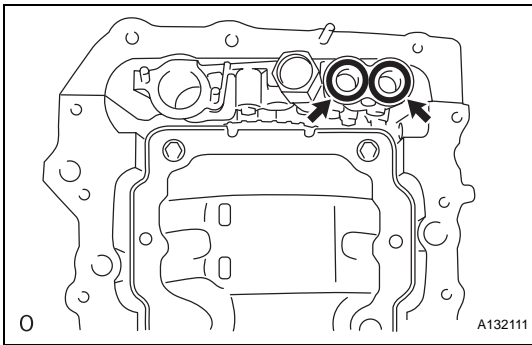
- (b) Remove the oil pan by prying between the oil pan and cylinder block with a screwdriver.

NOTICE:

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

HINT:

Tape the screwdriver tip before use.



(c) Remove the 2 O-rings from the oil pump.

12. REMOVE WATER INLET HOUSING (See page [CO-12](#))

13. REMOVE OIL PIPE (See page [EM-52](#))

14. REMOVE CYLINDER HEAD COVER SUB-ASSEMBLY (for Bank 1) (See page [EM-52](#))

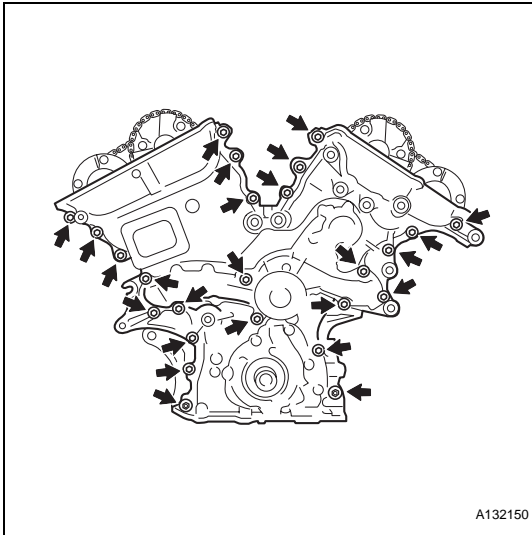
15. REMOVE NO. 1 OIL PIPE (See page [EM-53](#))

16. REMOVE CYLINDER HEAD COVER SUB-ASSEMBLY (for Bank 2) (See page [EM-53](#))

17. REMOVE CRANKSHAFT PULLEY (See page [EM-54](#))

18. REMOVE TIMING CHAIN COVER SUB-ASSEMBLY (w/ Oil Pump)

(a) Remove the 23 bolts and 2 nuts as shown in the illustration.



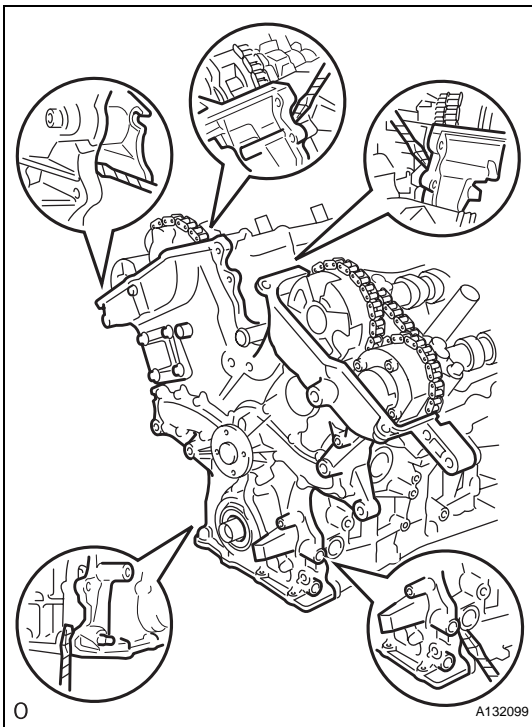
(b) Remove the timing chain cover by prying between the timing chain cover and cylinder head or cylinder block with a screwdriver.

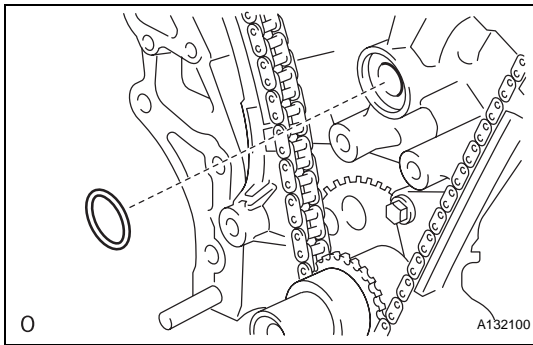
HINT:

Tape the screwdriver tip before use.

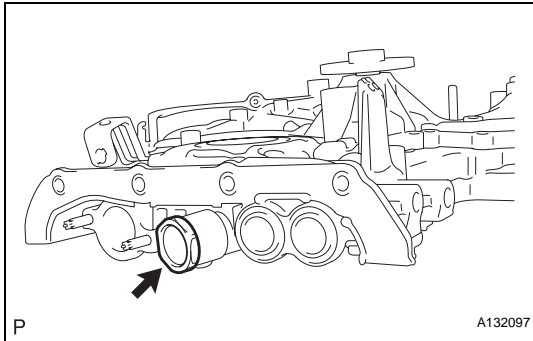
NOTICE:

Do not damage the contact surfaces of the cylinder head, cylinder block and timing chain cover.





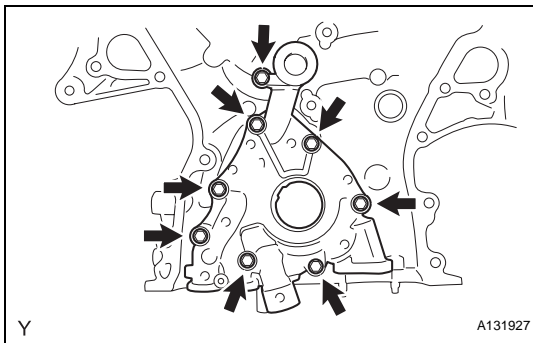
(c) Remove the gasket.



DISASSEMBLY

1. REMOVE OIL PUMP RELIEF VALVE

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



2. REMOVE OIL PUMP COVER

- (a) Remove the 8 bolts, oil pump cover, drive rotor and driven rotor.

NOTICE:

Be careful not to damage the drive and driven rotors.