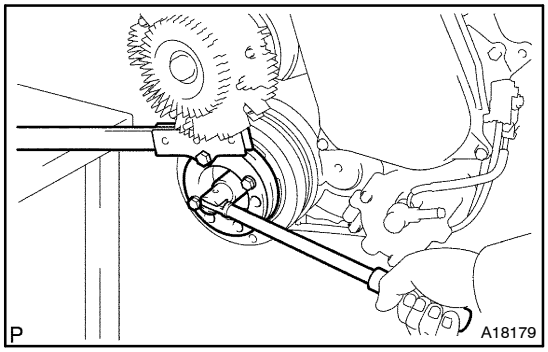
EM1TN–01

REMOVAL



1. LOOSEN CRANKSHAFT PULLEY

Using SST, loosen the pulley bolt.

SST 09213–58013 (90201–08131, 91111–50845), 09330–00021

NOTICE:

If the timing belt is disengaged, having the crankshaft pulley at the wrong angle can cause the piston head and valve head to come into contact with each other when you remove the camshaft timing pulley (step 8 in timing belt removal), causing damage.

2. REMOVE TIMING BELT AND PULLEYS (See page EM–14)

3. REMOVE NO. 2 TIMING BELT COVER

Remove the 4 bolts, nut and timing belt cover.

4. REMOVE FLUID COUPLING AND WATER PUMP PULLEY

Remove the 4 nuts, fluid coupling and water pump pulley.

5. REMOVE ALTERNATOR

(a) Remove the 2 bolts and alternator bracket.

(b) Remove the bolt and alternator.

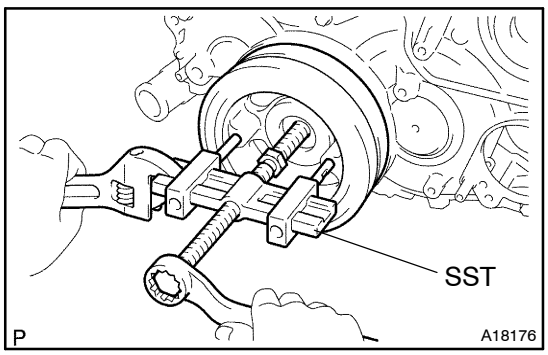
6. REMOVE DRIVE BELT TENSIONER

Remove the 4 bolts and tensioner.

7. REMOVE VACUUM PUMP

(a) Disconnect the vacuum hose from the vacuum pump.

(b) Remove the 2 nuts and vacuum pump and 2 O–rings.



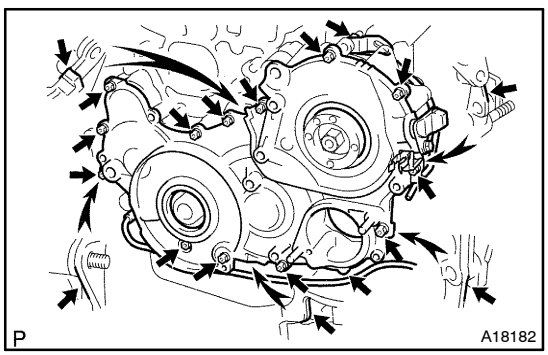
8. REMOVE CRANKSHAFT PULLEY

(a) Using SST, remove the crankshaft pulley.

SST 09950–50013, (09951–05010, 09952–05010, 09953–05010, 09953–05020, 09954–05021)

NOTICE:

Do not turn the crankshaft pulley. The valve heads will hit against the piston top.



9. REMOVE TIMING GEAR COVER

(a) Disconnect the crankshaft position sensor connector from the connector clamp on the vacuum pipe.

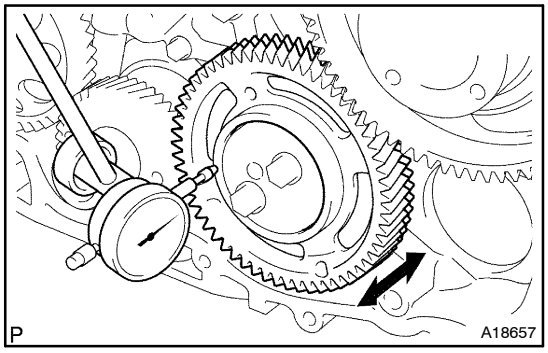
(b) Remove the bolt and nut, and disconnect the vacuum pipe from the timing belt cover.

(c) Remove the 13 bolts and 2 nuts.

(d) Pry the gear cover as shown in the illustration, and remove the gear cover.

(e) Remove the O–ring.

10. REMOVE CRANKSHAFT POSITION SENSOR PLATE

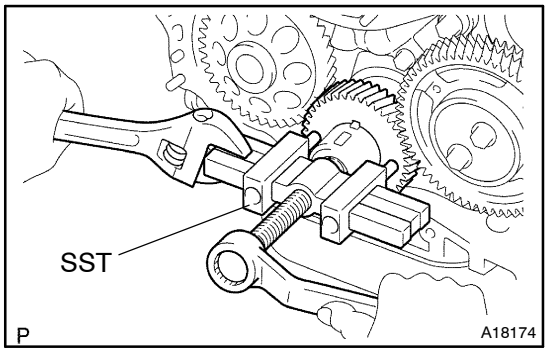


11. CHECK THRUST CLEARANCE OF IDLER GEAR

Using a dial indicator, measure the thrust clearance.

Standard thrust clearance:
0.06 – 0.11 mm (0.0024 – 0.0043 in.)
Maximum thrust clearance: 0.30 mm (0.0118 in.)

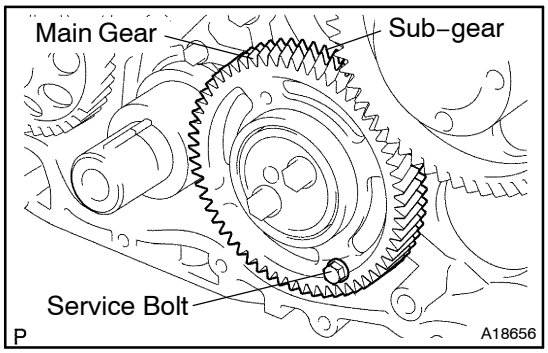
If the thrust clearance is greater than maximum, replace the thrust plate. If necessary, replace the idler gear and/or idler gear shaft.



12. REMOVE CRANKSHAFT TIMING GEAR

Using SST, remove the crankshaft timing gear.

SST 09950–50013 (09951–05010, 09952–05010, 09953–05010, 09954–05051)



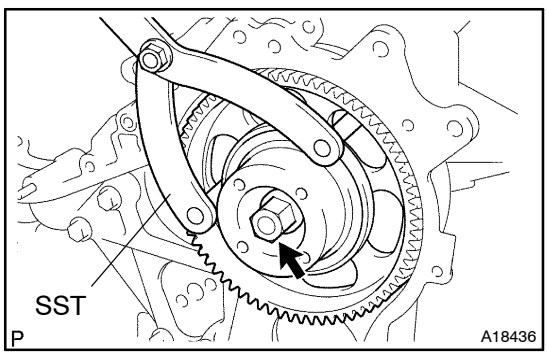
13. REMOVE IDLER GEAR ASSEMBLY

(a) Secure the sub–gear to the main gear with a service bolt.
Recommended service bolt:

Thread diameter	6 mm
Thread pitch	1.0 mm
Bolt length	Approx. 19 mm (0.75 in.)

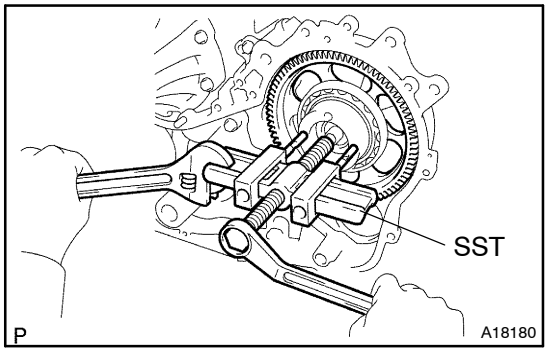
HINT:
When removing the idler gear, make sure that the torsional spring force of the sub–gear has been eliminated by the above operation.

(b) Remove the 2 bolts, thrust plate, the idler gear assembly and idler gear shaft.

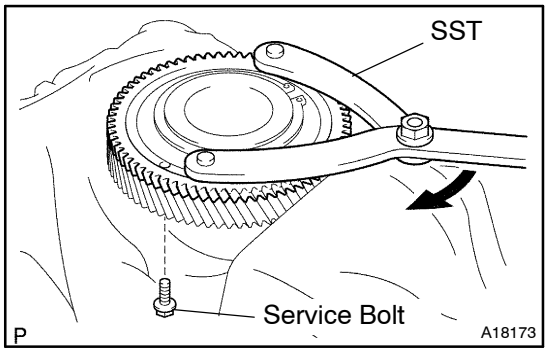


14. REMOVE SUPPLY PUMP DRIVE GEAR

(a) Using SST, remove the pulley cap nut and O–ring.
SST 09960–10010 (09962–01000, 09963–01000)



(b) Using SST, remove the drive gear.
SST 09950–50013 (09951–05010, 09952–05010, 09953–05010, 09954–05021)



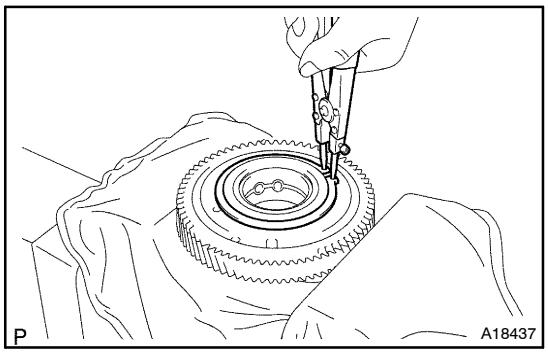
15. DISASSEMBLE IDLER GEAR ASSEMBLY

(a) Mount the main gear in a vise.

NOTICE:

Be careful not to damage the gears.

(b) Using SST, turn the sub–gear clockwise and remove the service bolt.
SST 09960–10010 (09962–01000, 09963–00700)



(c) Using snap ring pliers, remove the snap ring.

(d) Remove the wave washer, sub–gear and gear spring.