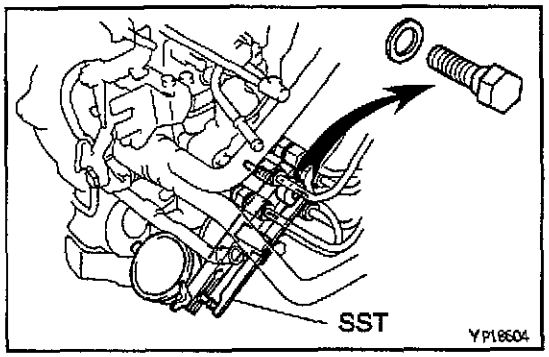
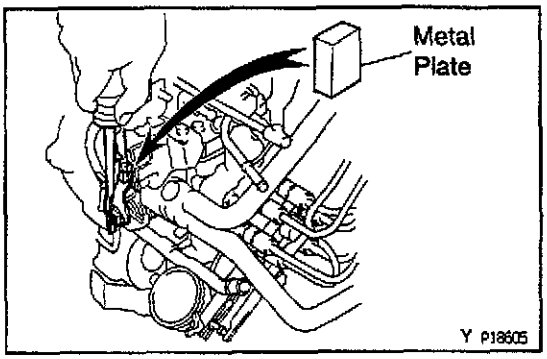


INJECTION TIMING INSPECTION AND ADJUSTMENT

1. INSTALL SST AND DIAL INDICATOR

(a) Remove the plug bolt and gasket from the distributive head plug of the injection pump.

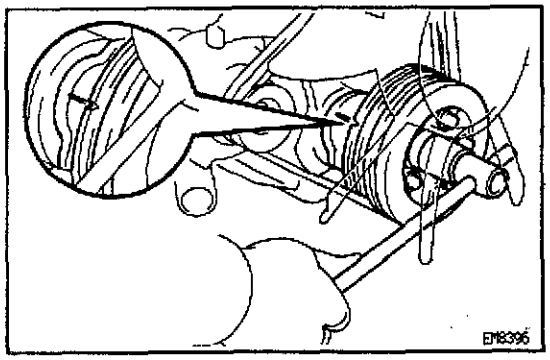
(b) Install SST (plunger stroke measuring tool) and a dial indicator to the plug bolt hole of distributive head plug.
SST 09275−54011



2. w/ ACSD:
RELEASE ACSD ADVANCE

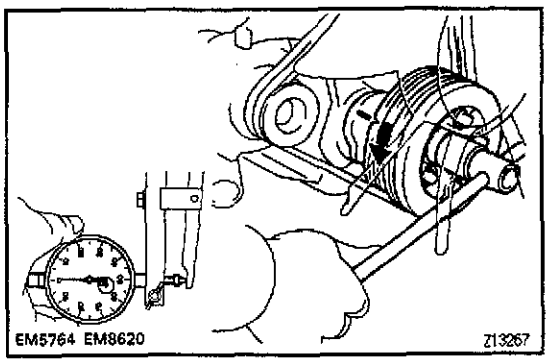
(a) Using a screwdriver, turn the cold starting lever counterclockwise approx. 20°.

(b) Put a metal plate (thickness of 8 — 10 mm (0.315 — 0.394 in.) between the cold starting lever and thermo-wax plunger.



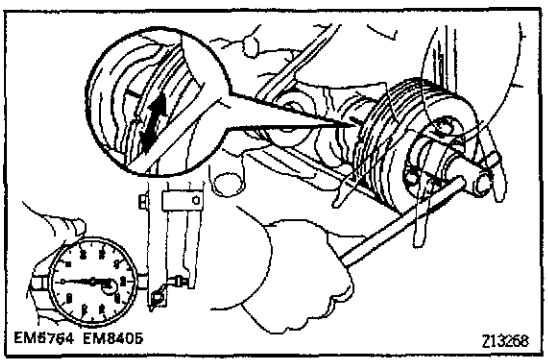
3. SET NO.1 OR NO.6 CYLINDER TO TDC/COMPRESSION

Turn the crankshaft pulley clockwise, and align its groove with the timing gear cover groove.

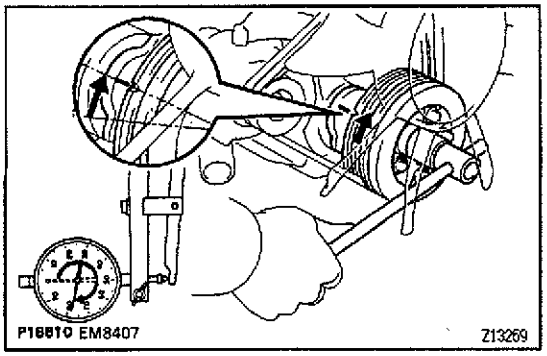


4. ADJUST INJECTION TIMING

(a) Slowly rotate the crankshaft pulley counterclockwise and set the dial indicator at 0 mm (0 in.) when the dial indicator reaches the minumum value.
NOTICE: Compared with previous 4 cylinder engines the 0 mm (0 in.) position (crank angle) is reduced, so perfrom the operation carefully.



(b) Trun the crankshaft to the left and right and cheak that the dial indicator shows the minimum value.
NOTICE: Make sure that the minimum value is set at 0 mm (0 in.).



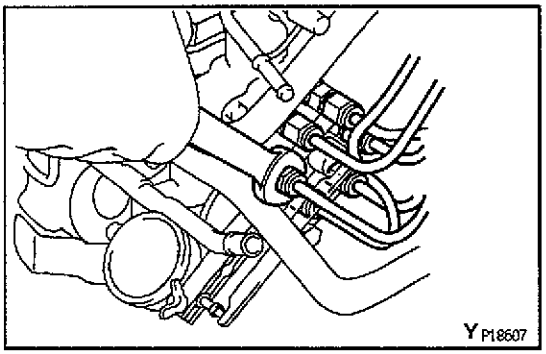
(c) Slowly rotate the crankshaft pulley clockwise until pulley groove is aligned with timing gear cover groove.

(d) Measure the plunger stroke.

Plunger stroke:

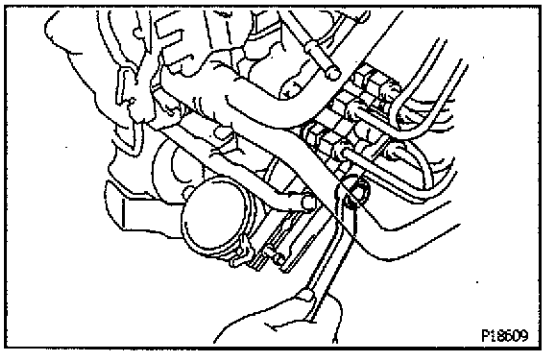
1.03 — 1.09 mm (0.0406 — 0.0429 in.)

(e) Repeat steps (a) to (d) several times.

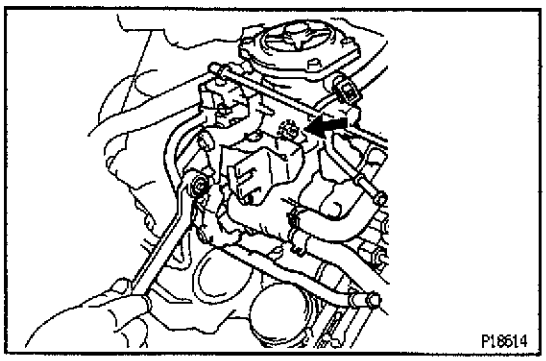


(f) Loosen these nuts and bolt:

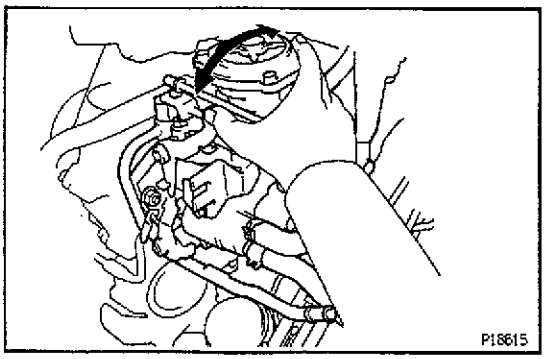
(1) 6 union nuts of injection pipes at injection pump side



(2) Bolt holding injection pump to injection pump stay



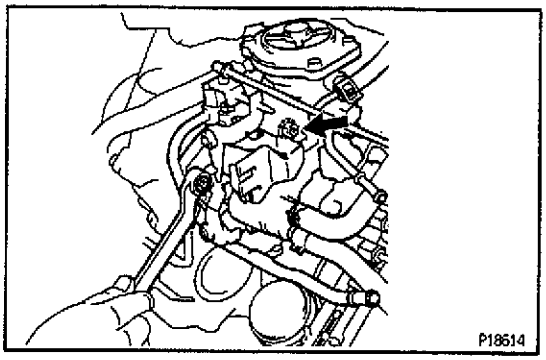
(3) 2 nuts holding injection pump to timing gear case



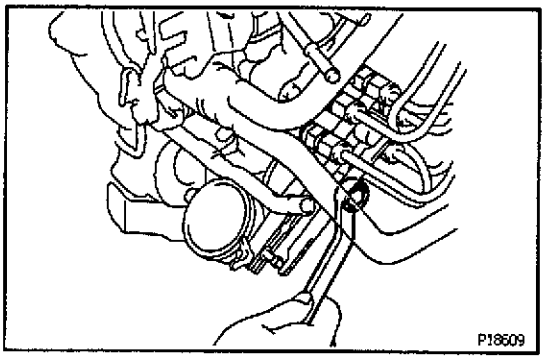
(g) Adjust plunger stroke by slightly tilting the injection pump body.

If the stroke is less than specification, tilt the pump toward the engine.

If the stroke is greater than specification, tilt the pump away from the engine.



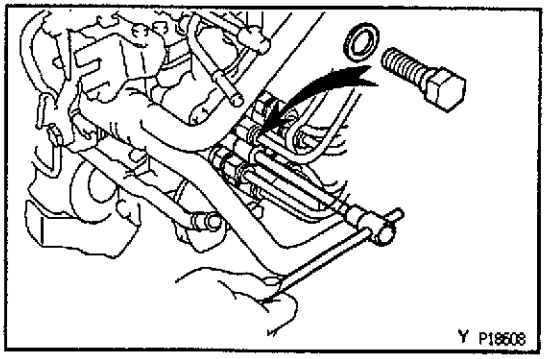
(h) Tighten these nuts and bolt:
(1) 2 nuts holding injection pump to timing gear case
Torque: 18 N·m (185 kgf·cm, 13 ft·lbf)



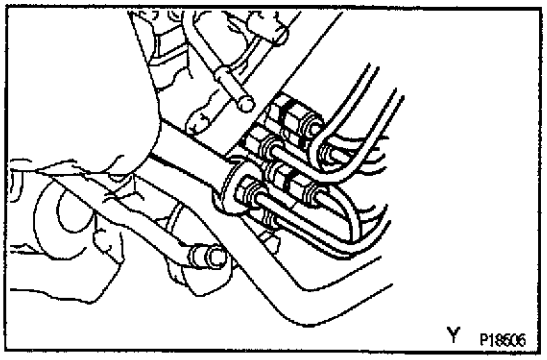
(2) Bolt holding injection pump to injection pump stay
Torque: 69 N·m (700 kgf·cm, 51 ft·lbf)

- Recheck the plunger stroke.

5. **w/ ACSD:**
REMOVE MENTAL PLATE



6. **REMOVE SST AND DIAL INDICATOR**
(a) Remove the SST and dial indicator.
SST 09275–54011
(b) Install a new gasket and the plug bolt of the distributive head plug.
Torque: 17 N·m (170 kgf·cm, 12 ft·lbf)



7. **TORQUE UNION NUTS OF INJECTION PIPES**
Torque: 15 N·m (150 kgf·cm, 11 ft·lbf)
8. **START ENGINE AND CHECK FOR LEAKAGE**