3400C–01

OVERHAUL

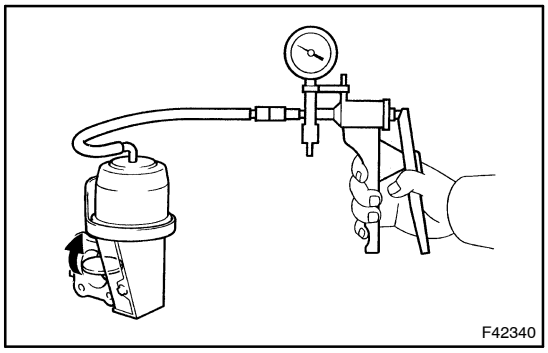
1. REMOVE ENGINE SIDE COVER SUB–ASSY RH

2. DISCONNECT VACUUM HOSE

3. REMOVE EXHAUST RETARDER ASSY

(a) Remove the 4 bolts.

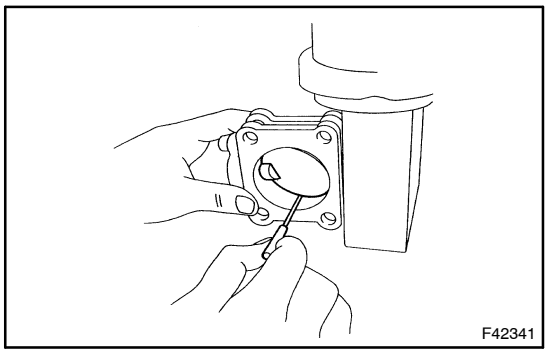
(b) Pull the exhaust pipe backward, and then remove the exhaust retarder and 2 gaskets.



4. INSPECT EXHAUST RETARDER CHAMBER

(a) Apply vacuum to the chamber and check for vacuum leakage and smooth movement of the valve.

If a problem is found, replace the exhaust retarder assembly.

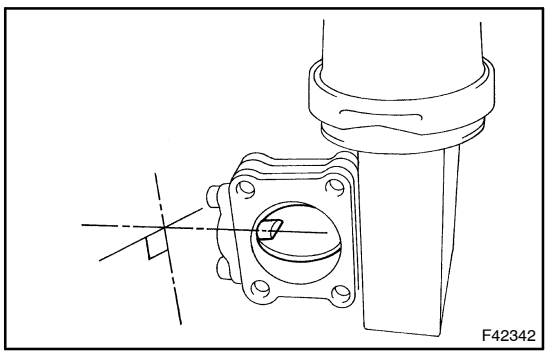


5. INSPECT VALVE BODY CLEARANCE AND OPENING ANGLE

(a) Using SST, check the valve body clearance with the chamber in vacuum.

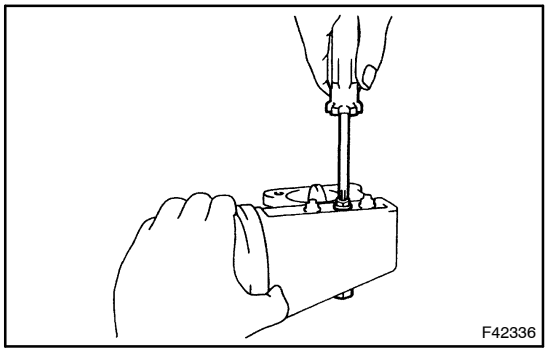
Standard clearance:

S05C–B, TA, TB	0.3 – 0.5 mm (0.012 – 0.019 in.)
14B, W04D–J	0.4 – 0.55 mm (0.016 – 0.021 in.)
S05C–B, TA (with aneroid compensator)	0.2 – 0.4 mm (0.008 – 0.016 in.)



(b) With the valve fully opened, measure the angle of the valve to the body surface.

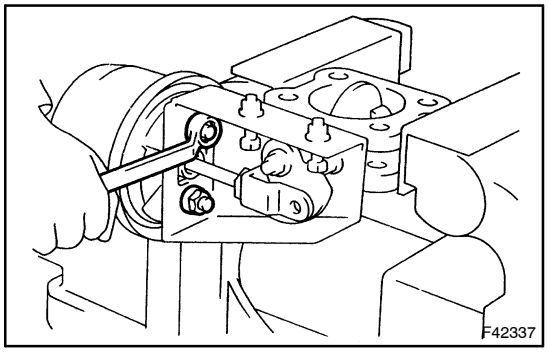
Opening angle: 90°



6. REMOVE BRACKET COVER

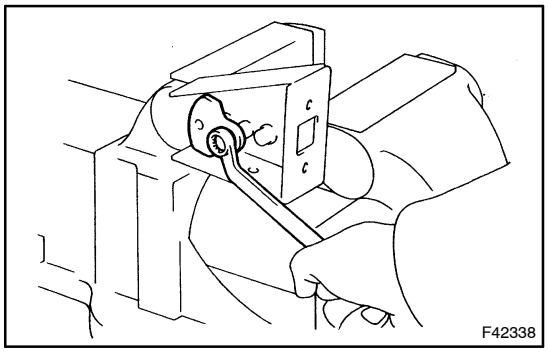
(a) Remove the 2 bolts and cover.

(b) Remove the clip and pin from the clevis.



7. REMOVE POWER CHAMBER

(a) Remove the 2 nuts and chamber from the braket.
(b) Remove the clevis and lock nut.
(c) Remove the gasket and bearing.

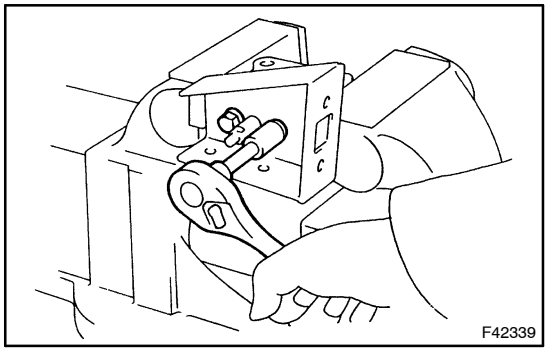


8. REMOVE EXHAUST BRAKE LEVER

(a) Remove the nut and lever.

9. REMOVE ADJUSTING BOLTS

(a) Loosen the lock nut, and remove the adjusting bolt and lock nut.



10. REMOVE VALVE BODY

(a) Remove the 2 bolts and bracket from the body.
(b) Remove the 4 seal rings to the body.

11. INSTALL VALVE BODY

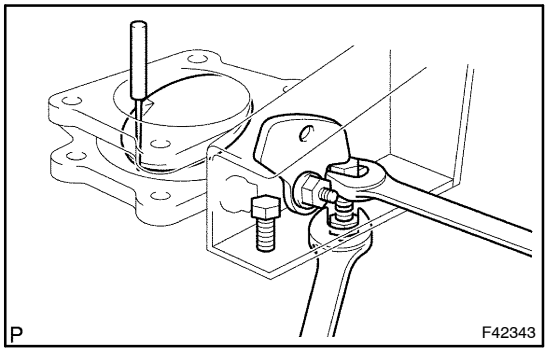
(a) Install 4 new seal rings to the body.
(b) Install the 2 bolts and bracket to the body.
Torque: 17.6 N·m (180 kgf·cm, 13 ft·lbf)

12. INSTALL ADJUSTING BOLTS

(a) Temporarily tighten the lock nuts and adjusting bolts.

13. INSTALL EXHAUST BRAKE LEVER

(a) Install the nut and lever.
Torque: 13.7 N·m (140 kgf·cm, 10 ft·lbf)

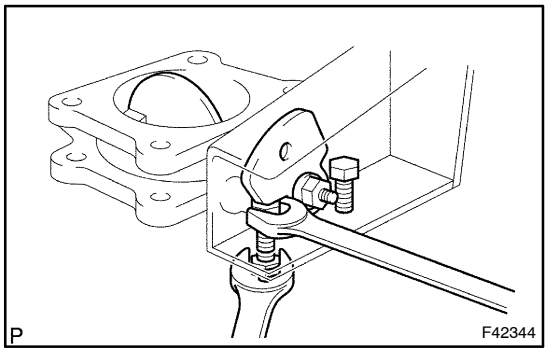


14. ADJUST VALVE BODY CLEARANCE AND OPENING ANGLE

(a) Adjust the valve body to the standard clearance with the adjusting bolt.

Standard clearance:

S05C–B, TA, TB	0.3 – 0.5 mm (0.012 – 0.019 in.)
14B, W04D–J	0.3 – 0.55 mm (0.016 – 0.021 in.)
S05C–B, TA (with aneroid compensator)	0.2 – 0.4 mm (0.008 – 0.016 in.)



(b) Release the vacuum from the chamber and fully open the valve.

(c) Adjust the opening angle to the standard with the adjusting bolt.

Opening angle: 90°

(d) Tighten the 2 lock nuts.

Torque: 7.4 N·m (75 kgf·cm, 65 in.·lbf)

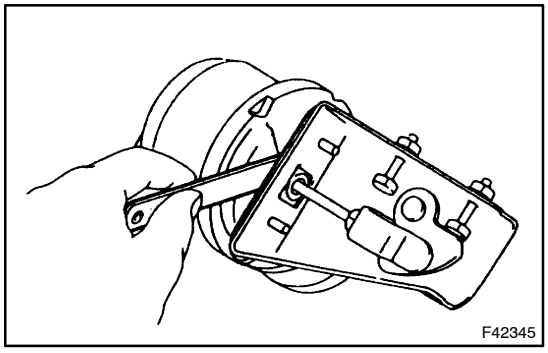
15. TEMPORARILY INSTALL POWER CHAMBER

(a) Install a new gasket and bearing.

(b) Install the clevis and lock nut.

Torque: 13.7 N·m (140 kgf·cm, 10 ft·lbf)

(c) Temporarily install the chamber to the bracket with the 2 nuts.



16. ADJUST ROD LENGTH

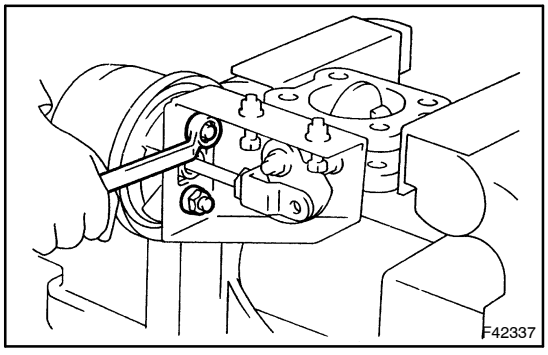
(a) Measure the clearance between the chamber and gasket.

Standard clearance: 2 – 5 mm (0.08 – 0.20 in.)

HINT:

Check that the valve lever and adjusting bolt are making contact.

(b) If necessary, Loosen the clevis nut and adjust the clearance by turning the rod.



17. INSTALL POWER CHAMBER

(a) Tighten the 2 nuts.

Torque: 17.6 N·m (180 kgf·cm, 13 ft·lbf)

18. INSTALL BRACKET COVER

(a) Install the clip and pin to the clevis.

(b) Install the cover with the 2 bolts.

19. INSTALL EXHAUST RETARDER ASSY

(a) Install the 2 new gaskets and exhaust retarder with the 4 bolts.
Torque: 29.5 N·m (300 kgf·cm, 22 ft·lbf)

20. INSTALL VACUUM HOSE

21. INSTALL ENGINE SIDE COVER SUB–ASSY RH