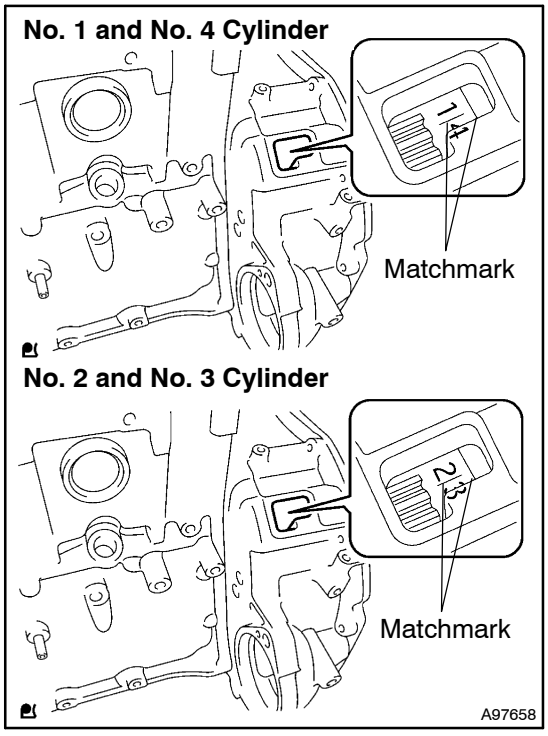
VALVE CLEARANCE (N04C–TF)

141UB–01

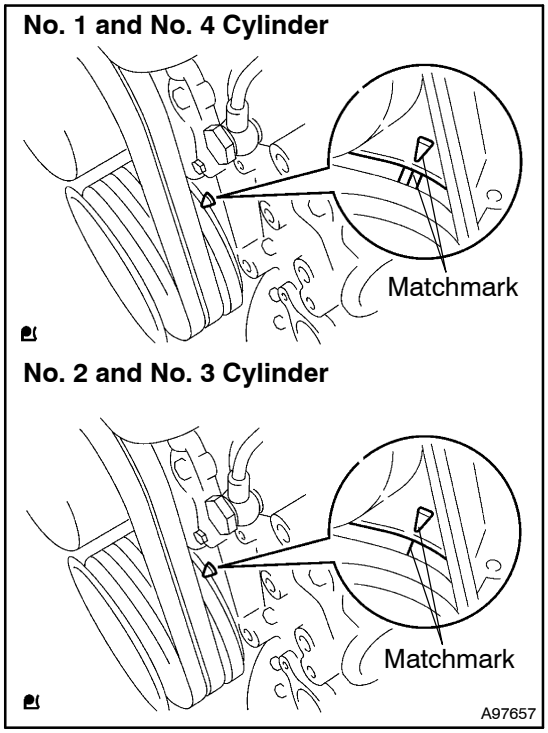
ADJUSTMENT

1. DISCONNECT BATTERY NEGATIVE TERMINAL
2. DRAIN FUEL
3. DRAIN ENGINE COOLANT (See page 16–3)
4. REMOVE VENTILATION PIPE NO. 2 (See page 14–14)
5. REMOVE INTAKE AIR CONNECTOR PIPE (See page 14–14)
6. REMOVE OIL FILLER CAP SUB–ASSY
7. REMOVE CYLINDER HEAD COVER NO. 2 (See page 11–20)
8. REMOVE CYLINDER HEAD COVER SUB–ASSY (See page 11–20)
9. REMOVE BREATHER PIPE
10. REMOVE BRACKET (See page 14–14)
11. REMOVE FUEL PIPE CLAMP (See page 11–20)
12. REMOVE INJECTOR ASSY (See page 11–20)



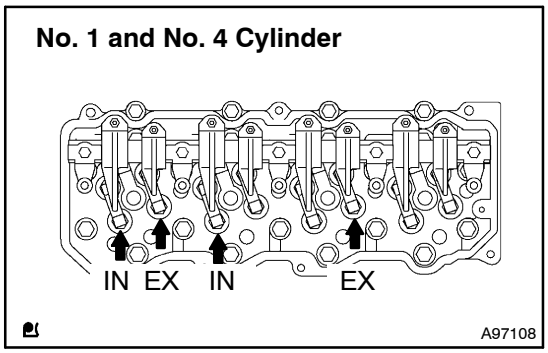
13. SET NO. 1 CYLINDER TO TDC/COMPRESSION

(a) Flyheel housing side:
Turn the crankshaft clockwise to align the matchmark on the flywheel the line between the 2 numbers with the edge on the flywheel housing.



(b) Crankshaft pulley side:
Turn the crankshaft clockwise to align the matchmark on the crankshaft pulley with the pointer on the Timing chain or belt cover.

HINT:
If not, turn the crankshaft 1 revolution (360°) to align the matchmark.

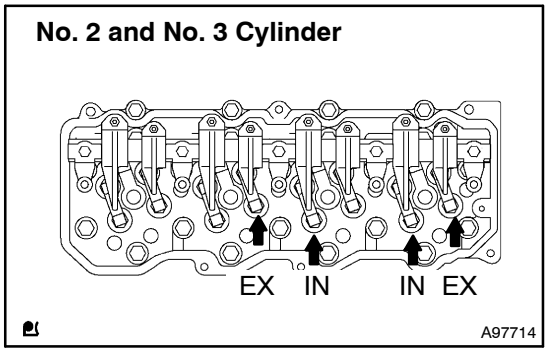


14. INSPECT VALVE CLEARANCE

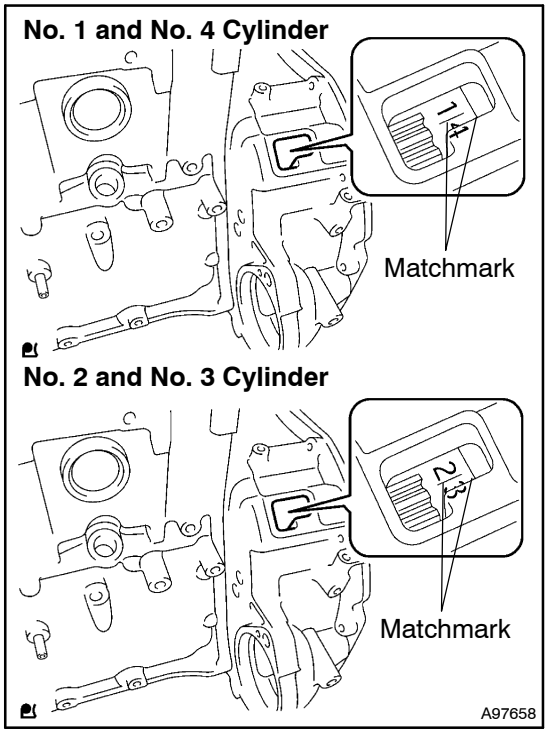
(a) Check only the 4 valves indicated in the illustration.
(1) Using a feeler gauge, measure the clearance between the adjusting screw on the valve rocker arm and the valve step cap.
(2) Record the out–of–specification valve clearance measurements.

Valve clearance (Cold):

Item	Specified Condition
Intake	0.30 mm (0.012 in.)
Exhaust	0.45 mm (0.018 in.)

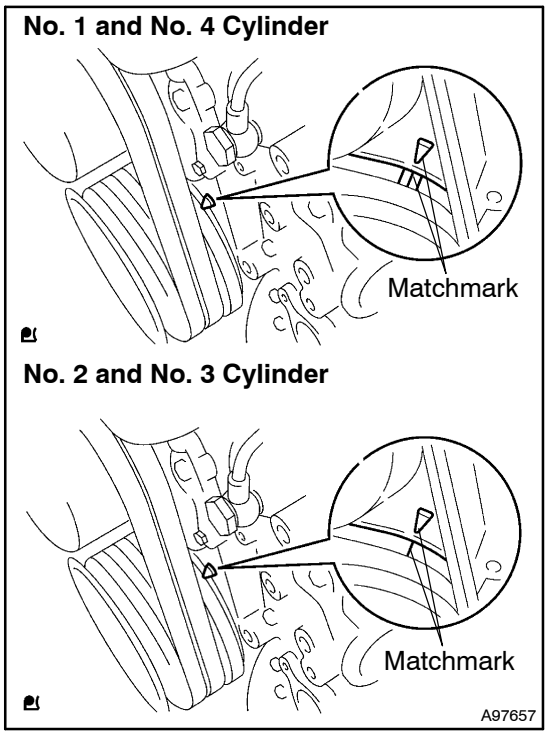


(b) Turn the crankshaft pulley 1 revolution (360°) to align the matchmark (see step 13).
(c) Check only the 4 valves indicated as shown in the illustration. Measure the valve clearance (see step (a)).



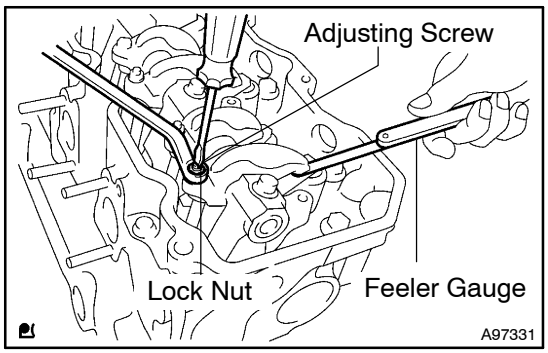
15. ADJUST VALVE CLEARANCE

(a) Flywheel side:
Turn the crankshaft clockwise to align the matchmark on the flywheel the line between the 2 numbers with the edge on the flywheel housing.



(b) Crankshaft pulley side:
Turn the crankshaft clockwise to align the matchmark on the crankshaft pulley with the pointer on the Timing chain or belt cover.

HINT:
If not, turn the crankshaft 1 revolution (360°) to align the matchmark.



(c) With the No. 1 piston positioned at TDC on the compression stroke, using a feeler gauge, adjust the each valve clearance.
Valve clearance (Cold):

Intake	0.30 mm (0.0118 in.)
Exhaust	0.45 mm (0.0177 in.)

HINT:
The feeler gauge should move with a very slight pull.

(d) Loosen the lock nut on the valve rocker arm and loosen the adjusting screw.
(e) Insert a 0.30 mm (0.012 in.) feeler gauge for the intake or a 0.45 mm (0.018 in.) feeler gauge for the exhaust between the adjusting screw on the valve rocker arm and the valve bridge.
(f) Turn the adjusting screw on the valve rocker arm until the feeler gauge slides with a very slight drag, and lock the adjusting screw with the lock nut.
Torque: 29.5 N·m (300 kgf·cm, 22 ft·lbf)
(g) Recheck the clearance.
(h) Adjust the other valves.
(1) Turn the crankshaft 1 revolution (360°) clockwise.
(2) Adjust the valve clearance for each cylinder in the firing order.
Firing order: 1 – 3 – 4 – 2
(Determine each cylinder's number by counting from the timing gear side.)

16. INSTALL INJECTOR ASSY (See page 11–20)
17. INSTALL FUEL PIPE CLAMP (See page 11–20)
18. INSTALL BRACKET (See page 14–14)
19. INSTALL BREATHER PIPE
20. INSTALL CYLINDER HEAD COVER SUB–ASSY (See page 11–20)
21. INSTALL CYLINDER HEAD COVER NO. 2 (See page 11–20)
22. INSTALL OIL FILLER CAP SUB–ASSY
23. INSTALL INTAKE AIR CONNECTOR PIPE (See page 14–14)
24. INSTALL VENTILATION PIPE NO. 2 (See page 14–14)
25. ADD ENGINE COOLANT (See page 16–3)
26. ADD FUEL
27. BLEED AIR FROM FUEL SYSTEM (See page 11–1)
28. CONNECT BATTERY NEGATIVE TERMINAL
29. CHECK FOR ENGINE COOLANT LEAKS (See page 16–1)
30. CHECK FOR FUEL LEAKS (See page 11–2)
31. CHECK FOR ENGINE OIL LEAKS