EM1TI–01

INSPECTION

HINT:

Inspect and adjust the valve clearance when the engine is cold.

NOTICE:

- **Before removing the injection pipes, clean them up with a soft brush and compressed air.**
- **After removing the injection pipe, affix the gum tape on the supply pump, common rail and the whole injector installation area of the cylinder head cover for preventing dust from coming into them.**
- **After removing the cylinder head cover, put a vinyl bag and rubber band for preventing foreign objects from mixing in the injector inlet.**

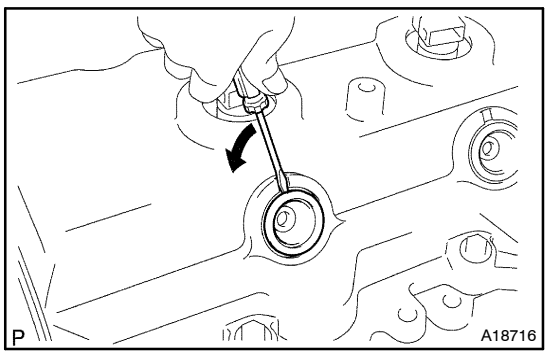
1. REMOVE CYLINDER HEAD COVER

(a) Remove the throttle body.

(1) Remove the 2 bolts, and disconnect the VSV assembly from the throttle body.

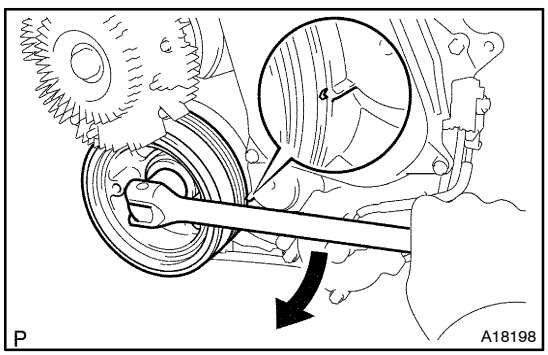
(2) Remove the bolt, 2 nuts, wire bracket, the VSV assembly, throttle body and gasket.

(b) Remove the 4 injection pipes (See page FU–6).



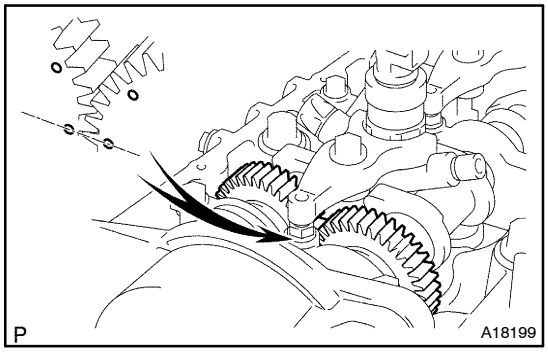
(c) Remove the 4 holder seals.
Using a small screwdriver, remove the holder seal by prying the portion between the holder seal and the cutout part of the cylinder head.

(d) Remove the 10 bolts, 2 nuts, cylinder head cover and gasket.

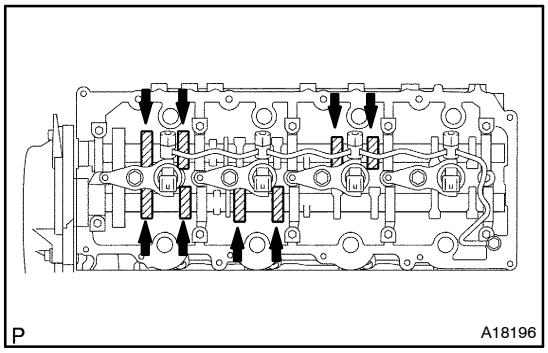


2. SET NO. 1 CYLINDER TO TDC/COMPRESSION

(a) Turn the crankshaft pulley clockwise, and align its groove with the timing mark of the timing gear cover.



(b) Check the timing mark positions of the camshaft gears as shown in the illustration
If not, turn the crankshaft one revolution (360°) and align the mark as above.



3. CHECK VALVE CLEARANCE

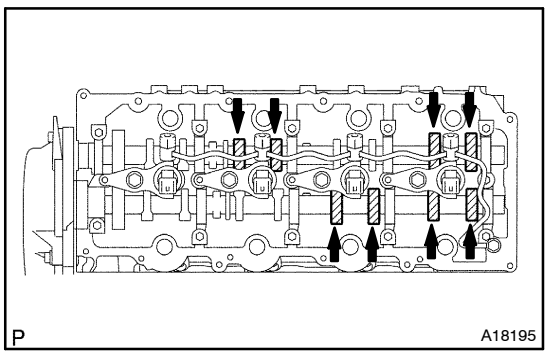
(a) Check only the valves indicated.

(1) Using a feeler gauge, measure the clearance between the valve lifter and camshaft.

(2) Record the out-of-specification valve clearance measurements. They will be used later to determine the required replacement adjusting shim.

Valve clearance (Cold):

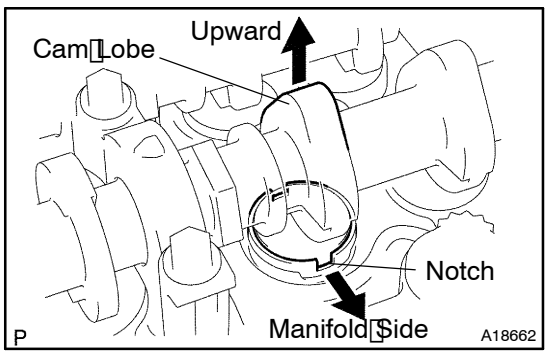
Intake	0.20 – 0.30 mm (0.008 – 0.012 in.)
Exhaust	0.35 – 0.45 mm (0.014 – 0.018 in.)



(b) Turn the camshaft 1/2 revolutions (180°).

(c) Check only the valves indicated as shown. Measure the valve clearance (See procedure (b) above).

4. REMOVE INJECTORS (See page FU–6)

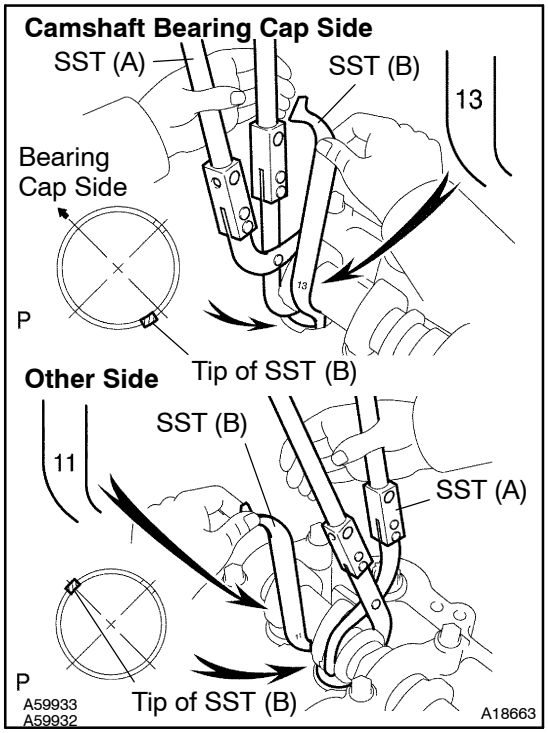


5. ADJUST VALVE CLEARANCE

(a) Remove the adjusting shim.

(1) Turn the crankshaft so that the cam lobe of the camshaft on the adjusting valve points upward.

(2) Position the notch of the valve lifter facing the manifold side.

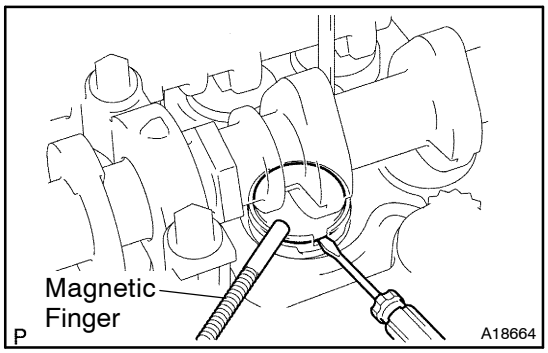


(3) Using SST (A), press down the valve lifter and place SST (B) between the camshaft and valve lifter. Remove SST (A).

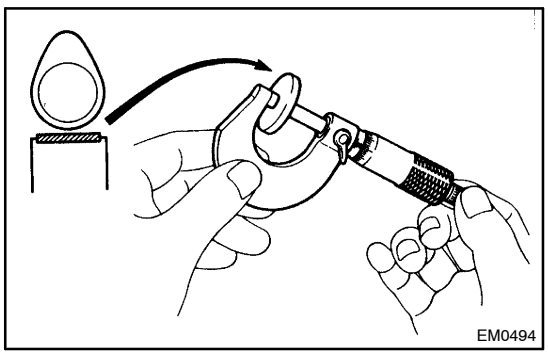
SST 09248–55050 (09248–05510, 09248–05520)

HINT:

- Camshaft Bearing Cap Side:
  Apply SST (B) on the side marked with ”13”, at the position shown in the illustration.
- Other Side:
  Apply SST (B) on the side marked with ”11”, at the position shown in the illustration.



(4) Remove the adjusting shim with a small screwdriver and magnetic finger.



(b) Determine the replacement adjusting shim size by following the Formula or Charts:

(1) Using a micrometer, measure the thickness of the removed shim.

(2) Calculate the thickness of a new shim so that the valve clearance comes within specified value.

T ..... Thickness of removed shim
A ..... Measured valve clearance
N ..... Thickness of new shim

Intake	N = T + (A – 0.25 mm (0.010 in.))
Exhaust	N = T + (A – 0.40 mm (0.016 in.))

(3) Select a new shim with a thickness as close as possible to the calculated value.

HINT:

Shims are available in 17 sizes in increments of 0.025 mm (0.0010 in.), from 2.525 mm (0.0994 in.) to 3.300 mm (0.1299 in.).

Adjusting Shim Selection Using Chart (Intake)

Measured clearance mm (in.) \ Installed shim thickness mm (in.)	2.525 (0.0994)	2.550 (0.1004)	2.575 (0.1014)	2.600 (0.1024)	2.625 (0.1033)	2.650 (0.1043)	2.675 (0.1053)	2.700 (0.1063)	2.725 (0.1073)	2.750 (0.1083)	2.775 (0.1093)	2.800 (0.1102)	2.825 (0.1112)	2.850 (0.1122)	2.875 (0.1132)	2.900 (0.1142)	2.925 (0.1152)	2.950 (0.1161)	2.975 (0.1171)	3.000 (0.1181)	3.025 (0.1191)	3.050 (0.1201)	3.075 (0.1211)	3.100 (0.1220)	3.125 (0.1230)	3.150 (0.1240)	3.175 (0.1250)	3.200 (0.1260)	3.225 (0.1270)	3.250 (0.1280)	3.275 (0.1289)	3.300 (0.1299)
0.000 — 0.020 (0.0000 — 0.0008)											01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22
0.021 — 0.040 (0.0008 — 0.0016)										01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
0.041 — 0.060 (0.0016 — 0.0024)								01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
0.061 — 0.080 (0.0024 — 0.0031)							01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
0.081 — 0.100 (0.0032 — 0.0039)						01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	
0.101 — 0.120 (0.0040 — 0.0047)						01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	
0.121 — 0.140 (0.0048 — 0.0055)					01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
0.141 — 0.160 (0.0056 — 0.0063)				01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
0.161 — 0.180 (0.0063 — 0.0071)			01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
0.181 — 0.199 (0.0071 — 0.0078)			01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
0.200 — 0.300 (0.0079 — 0.0118)																																
0.301 — 0.320 (0.0119 — 0.0126)	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32		
0.321 — 0.340 (0.0126 — 0.0134)	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32			
0.341 — 0.360 (0.0134 — 0.0142)	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32				
0.261 — 0.380 (0.0142 — 0.0150)	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32					
0.381 — 0.400 (0.0150 — 0.0157)	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32						
0.401 — 0.420 (0.0158 — 0.0165)	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32						
0.421 — 0.440 (0.0166 — 0.0173)	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32							
0.441 — 0.460 (0.0174 — 0.0181)	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32								
0.461 — 0.480 (0.0181 — 0.0189)	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32									
0.481 — 0.500 (0.0189 — 0.0197)	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32										
0.501 — 0.520 (0.0197 — 0.0205)	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32										
0.521 — 0.540 (0.0205 — 0.0213)	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32											
0.541 — 0.560 (0.0213 — 0.0220)	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32												
0.561 — 0.580 (0.0221 — 0.0228)	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32													
0.581 — 0.600 (0.0229 — 0.0236)	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32														
0.601 — 0.620 (0.0237 — 0.0244)	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32														
0.621 — 0.640 (0.0244 — 0.0252)	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32															
0.641 — 0.660 (0.0252 — 0.0260)	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32																
0.661 — 0.680 (0.0260 — 0.0268)	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32																	
0.681 — 0.700 (0.0268 — 0.0276)	19	20	21	22	23	24	25	26	27	28	29	30	31	32																		
0.701 — 0.720 (0.0276 — 0.0283)	19	20	21	22	23	24	25	26	27	28	29	30	31	32																		
0.721 — 0.740 (0.0284 — 0.0291)	20	21	22	23	24	25	26	27	28	29	30	31	32																			
0.741 — 0.760 (0.0292 — 0.0299)	21	22	23	24	25	26	27	28	29	30	31	32																				
0.761 — 0.780 (0.0300 — 0.0307)	22	23	24	25	26	27	28	29	30	31	32																					
0.781 — 0.800 (0.0307 — 0.0315)	23	24	25	26	27	28	29	30	31	32																						
0.801 — 0.820 (0.0315 — 0.0323)	23	24	25	26	27	28	29	30	31	32																						
0.821 — 0.840 (0.0323 — 0.0331)	24	25	26	27	28	29	30	31	32																							
0.841 — 0.860 (0.0331 — 0.0339)	25	26	27	28	29	30	31	32																								
0.861 — 0.880 (0.0339 — 0.0346)	26	27	28	29	30	31	32																									
0.881 — 0.900 (0.0347 — 0.0354)	27	28	29	30	31	32																										
0.901 — 0.920 (0.0355 — 0.0362)	27	28	29	30	31	32																										
0.921 — 0.940 (0.0363 — 0.0370)	28	29	30	31	32																											
0.941 — 0.960 (0.0370 — 0.0378)	29	30	31	32																												
0.961 — 0.980 (0.0378 — 0.0386)	30	31	32																													
0.981 — 1.000 (0.0386 — 0.0394)	31	32																														
1.001 — 1.020 (0.0394 — 0.0402)	31	32																														
1.021 — 1.040 (0.0402 — 0.0409)	32																															

New shim thickness mm (in.)

No.	Shim mark	Thickness	No.	Shim mark	Thickness
01	2525	2.525 (0.0994)	17	2925	2.925 (0.1152)
02	2550	2.550 (0.1004)	18	2950	2.950 (0.1161)
03	2575	2.575 (0.1014)	19	2975	2.975 (0.1171)
04	2600	2.600 (0.1024)	20	3000	3.000 (0.1181)
05	2625	2.625 (0.1033)	21	3025	3.025 (0.1191)
06	2650	2.650 (0.1043)	22	3050	3.050 (0.1201)
07	2675	2.675 (0.1053)	23	3075	3.075 (0.1211)
08	2700	2.700 (0.1063)	24	3100	3.100 (0.1220)
09	2725	2.725 (0.1073)	25	3125	3.125 (0.1230)
10	2750	2.750 (0.1083)	26	3150	3.150 (0.1240)
11	2775	2.775 (0.1093)	27	3175	3.175 (0.1250)
12	2800	2.800 (0.1102)	28	3200	3.200 (0.1260)
13	2825	2.825 (0.1112)	29	3225	3.225 (0.1270)
14	2850	2.850 (0.1122)	30	3250	3.250 (0.1280)
15	2875	2.875 (0.1132)	31	3275	3.275 (0.1289)
16	2900	2.900 (0.1142)	32	3300	3.300 (0.1299)

Intake valve clearance (Cold):
0.20 – 0.30 mm (0.0079 – 0.0118 in.)

EXAMPLE:

The 2.800 mm (0.1102 in.) shim is installed, and the measured clearance is 0.350 mm (0.0138 in.). Replace the 2.800 mm (0.1102 in.) shim with a new No. 16 shim.

N

A18665

Adjusting Shim Selection Using Chart (Exhaust)

Measured clearance mm (in.) \ Installed shim thickness mm (in.)	2.525 (0.0994)	2.550 (0.1004)	2.575 (0.1014)	2.600 (0.1024)	2.625 (0.1033)	2.650 (0.1043)	2.675 (0.1053)	2.700 (0.1063)	2.725 (0.1073)	2.750 (0.1083)	2.775 (0.1093)	2.800 (0.1102)	2.825 (0.1112)	2.850 (0.1122)	2.875 (0.1132)	2.900 (0.1142)	2.925 (0.1152)	2.950 (0.1161)	2.975 (0.1171)	3.000 (0.1181)	3.025 (0.1191)	3.050 (0.1201)	3.075 (0.1211)	3.100 (0.1220)	3.125 (0.1230)	3.150 (0.1240)	3.175 (0.1250)	3.200 (0.1260)	3.225 (0.1270)	3.250 (0.1280)	3.275 (0.1289)	3.300 (0.1299)
0.000 — 0.020 (0.0000 — 0.0008)																	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
0.021 — 0.040 (0.0008 — 0.0016)																01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17
0.041 — 0.060 (0.0016 — 0.0024)															01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18
0.061 — 0.080 (0.0024 — 0.0031)														01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19
0.081 — 0.100 (0.0032 — 0.0039)													01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20
0.101 — 0.120 (0.0040 — 0.0047)													01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20
0.121 — 0.140 (0.0048 — 0.0055)												01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21
0.141 — 0.160 (0.0056 — 0.0063)											01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22
0.161 — 0.180 (0.0063 — 0.0071)										01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
0.181 — 0.200 (0.0071 — 0.0079)									01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
0.201 — 0.220 (0.0079 — 0.0087)									01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
0.221 — 0.240 (0.0087 — 0.0094)								01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
0.241 — 0.260 (0.0095 — 0.0102)							01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
0.261 — 0.280 (0.0103 — 0.0110)						01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
0.281 — 0.300 (0.0111 — 0.0118)					01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
0.301 — 0.320 (0.0119 — 0.0126)					01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
0.321 — 0.340 (0.0126 — 0.0134)				01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
0.341 — 0.344 (0.0134 — 0.0135)			01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
0.350 — 0.450 (0.0138 — 0.0177)																																
0.451 — 0.470 (0.0178 — 0.0185)	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32		
0.471 — 0.490 (0.0185 — 0.0193)	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32			
0.491 — 0.510 (0.0193 — 0.0201)	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32				
0.511 — 0.530 (0.0201 — 0.0209)	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32					
0.531 — 0.550 (0.0209 — 0.0217)	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32						
0.551 — 0.570 (0.0217 — 0.0224)	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32						
0.571 — 0.590 (0.0225 — 0.0232)	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32							
0.591 — 0.610 (0.0233 — 0.0240)	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32								
0.611 — 0.630 (0.0241 — 0.0248)	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32									
0.631 — 0.650 (0.0248 — 0.0256)	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32										
0.651 — 0.670 (0.0256 — 0.0264)	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32										
0.671 — 0.690 (0.0264 — 0.0272)	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32											
0.691 — 0.710 (0.0272 — 0.0280)	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32												
0.711 — 0.730 (0.0280 — 0.0287)	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32													
0.731 — 0.750 (0.0288 — 0.0295)	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32														
0.751 — 0.770 (0.0296 — 0.0303)	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32														
0.771 — 0.790 (0.0304 — 0.0311)	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32															
0.791 — 0.810 (0.0311 — 0.0319)	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32																
0.811 — 0.830 (0.0319 — 0.0327)	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32																	
0.831 — 0.850 (0.0327 — 0.0335)	19	20	21	22	23	24	25	26	27	28	29	30	31	32																		
0.851 — 0.870 (0.0335 — 0.0343)	19	20	21	22	23	24	25	26	27	28	29	30	31	32																		
0.871 — 0.890 (0.0343 — 0.0350)	20	21	22	23	24	25	26	27	28	29	30	31	32																			
0.891 — 0.910 (0.0351 — 0.0358)	21	22	23	24	25	26	27	28	29	30	31	32																				
0.911 — 0.930 (0.0359 — 0.0366)	22	23	24	25	26	27	28	29	30	31	32																					
0.931 — 0.950 (0.0367 — 0.0374)	23	24	25	26	27	28	29	30	31	32																						
0.951 — 0.970 (0.0374 — 0.0382)	23	24	25	26	27	28	29	30	31	32																						
0.971 — 0.990 (0.0382 — 0.0390)	24	25	26	27	28	29	30	31	32																							
0.991 — 1.010 (0.0390 — 0.0398)	25	26	27	28	29	30	31	32																								
1.011 — 1.030 (0.0398 — 0.0406)	26	27	28	29	30	31	32																									
1.031 — 1.050 (0.0406 — 0.0413)	27	28	29	30	31	32																										
1.051 — 1.070 (0.0414 — 0.0421)	27	28	29	30	31	32																										
1.071 — 1.090 (0.0422 — 0.0429)	28	29	30	31	32																											
1.091 — 1.110 (0.0430 — 0.0437)	29	30	31	32																												
1.111 — 1.130 (0.0437 — 0.0445)	30	31	32																													
1.131 — 1.150 (0.0445 — 0.0453)	31	32																														
1.151 — 1.170 (0.0453 — 0.0461)	31	32																														
1.171 — 1.190 (0.0461 — 0.0469)	32																															

Exhaust valve clearance (Cold):
0.35 – 0.45 mm (0.0138 – 0.0177 in.)

EXAMPLE:

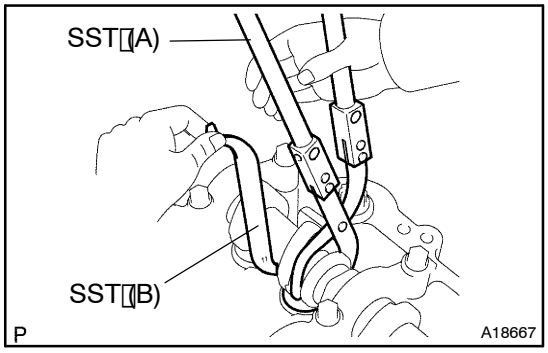
The 2.800 mm (0.1102 in.) shim is installed, and the measured clearance is 0.500 mm (0.0197 in.). Replace the 2.800 mm (0.1102 in.) shim with a new No. 16 shim.

New shim thickness mm (in.)

No.	Shim mark	Thickness	No.	Shim mark	Thickness
01	2525	2.525 (0.0994)	17	2925	2.925 (0.1152)
02	2550	2.550 (0.1004)	18	2950	2.950 (0.1161)
03	2575	2.575 (0.1014)	19	2975	2.975 (0.1171)
04	2600	2.600 (0.1024)	20	3000	3.000 (0.1181)
05	2625	2.625 (0.1033)	21	3025	3.025 (0.1191)
06	2650	2.650 (0.1043)	22	3050	3.050 (0.1201)
07	2675	2.675 (0.1053)	23	3075	3.075 (0.1211)
08	2700	2.700 (0.1063)	24	3100	3.100 (0.1220)
09	2725	2.725 (0.1073)	25	3125	3.125 (0.1230)
10	2750	2.750 (0.1083)	26	3150	3.150 (0.1240)
11	2775	2.775 (0.1093)	27	3175	3.175 (0.1250)
12	2800	2.800 (0.1102)	28	3200	3.200 (0.1260)
13	2825	2.825 (0.1112)	29	3225	3.225 (0.1270)
14	2850	2.850 (0.1122)	30	3250	3.250 (0.1280)
15	2875	2.875 (0.1132)	31	3275	3.275 (0.1289)
16	2900	2.900 (0.1142)	32	3300	3.300 (0.1299)

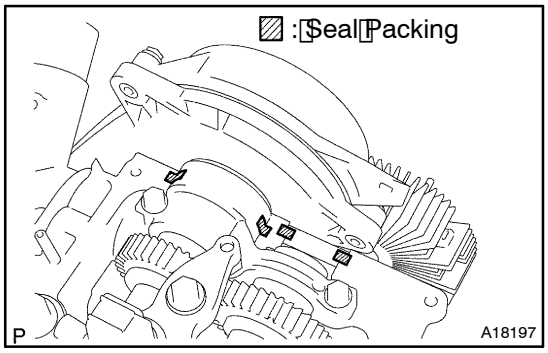
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(c) Install a new adjusting shim.
(1) Place a new adjusting shim on the valve lifter.
(2) Using SST (A), press down the valve lifter and remove SST (B).
SST 09248–55050 (09248–05510, 09248–05520)
(d) Recheck the valve clearance.

6. REINSTALL INJECTORS (See page FU–8)



7. REINSTALL CYLINDER HEAD COVER

(a) Install the cylinder head cover.
(1) Remove any old packing (FIPG) material.
(2) Apply seal packing to the cylinder head as shown in the illustration.
Seal packing: Part No. 08826–00080 or equivalent
(3) Install the gasket to the cylinder head cover.
(4) Install the cylinder head cover with 10 bolts and 2 nuts. Uniformly tighten the bolts and nuts in several passes.
Torque: 9.0 N·m (92 kgf·cm, 80 in.·lbf)
(b) Reinstall 4 new holder seals.
(c) Reinstall 4 injection pipes (See page FU–8).
(d) Reinstall the throttle body.
(1) Install a new gasket, the throttle body and wire bracket with the bolt and 2 nuts.
Torque: 20 N·m (204 kgf·cm, 15 ft·lbf)
(2) Install the VSV assembly with the 2 bolts.