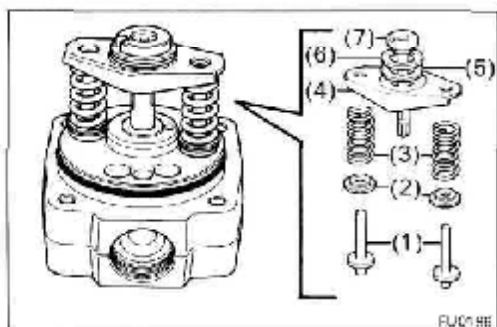


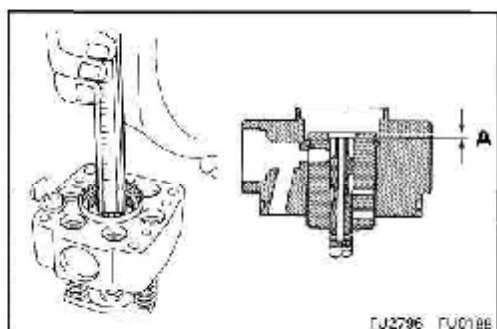
- (b) Using a 5 mm hexagon wrench, adjust the protrusion of the adjusting screw from the timer cover.

10. ADJUST PLUNGER SPRING SHIM



- (a) Install the following parts to the distributive head:
 - (1) Two plunger spring guides
 - (2) Two upper spring seats
 - (3) Two plunger springs
 - (4) Lower spring seat
 - (5) Upper plunger plate
 - (6) Lower plunger plate
 - (7) Pump plunger

HINT: Do not assemble the plunger spring shims at this time.



- (b) Using vernier calipers, measure clearance A indicated in the illustration.
- (c) Determine the plunger spring shim size by using the following formula and chart.

IPZ and 1HZ

$$\text{New plunger spring shim thickness} = 5.8 - A$$

1HD-T

$$\text{New plunger spring shim thickness} = 5.1 - A$$

A Measured plunger position

Plunger spring shim selection chart for 1 PZ and 1 HZ
mm (in.)

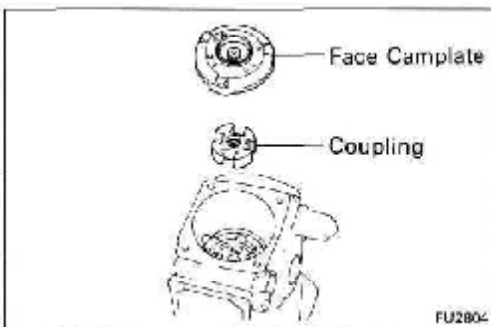
Measured clearance	Shim thickness	Measured clearance	Shim thickness
More than 5.3 (0.209)	0.5 (0.020)	4.3 – 4.5 (0.169 – 0.177)	1.5 (0.059)
5.0 – 5.2 (0.196 – 0.205)	0.8 (0.031)	4.0 – 4.2 (0.157 – 0.165)	1.8 (0.071)
4.8 – 4.9 (0.189 – 0.193)	1.0 (0.039)	Less than 3.9 (0.154)	2.0 (0.079)
4.6 – 4.7 (0.181 – 0.185)	1.2 (0.047)	-	-

Plunger spring shim selection chart for 1 HD-T
mm (in.)

Measured clearance	Shim thickness	Measured clearance	Shim thickness
More than 4.6 (0.181)	0.5 (0.020)	3.6 – 3.8 (0.142 – 0.150)	1.5 (0.059)
4.3 – 4.5 (0.169 – 0.177)	0.8 (0.031)	3.3 – 3.5 (0.130 – 0.138)	1.8 (0.071)
4.1 – 4.2 (0.161 – 0.165)	1.0 (0.039)	Less than 3.2 (0.126)	2.0 (0.079)
3.9 – 4.0 (0.154 – 0.157)	1.2 (0.047)	-	-

HINT:

- For a measurement between listed sizes, use the next larger size. Ex. If thickness is 1.1 mm (0.043 in.) by calculation, use a 1.2 mm (0.047 in.) shim.
- Select two shims which have the same thickness.

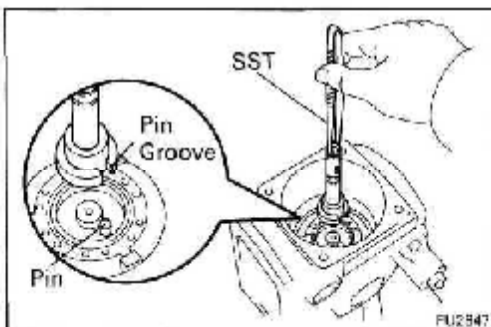


11. (IPZonly)

ADJUST PLUNGER ADJUSTING SHIM

(a) Install the coupling and face camplate.

HINT: Do not assemble the coupling spring.

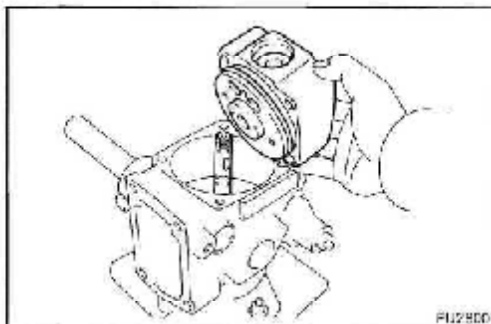


(b) Clean the plunger adjusting shim and contacting surface area.

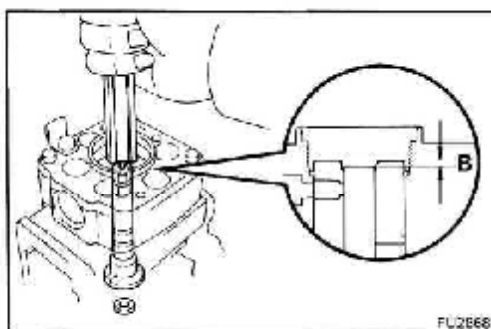
(c) Align the pin groove of the pump plunger with the face camplate pin.

(d) Using SST, install the used plunger adjusting shim and pump plunger.

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(e) Install the distributive head with the four bolts.

Torque: 120 kg-cm (9 ft-lb, 12 N·m)**NOTICE: Be careful not to damage the pump plunger.**

(f) Using vernier calipers, measure dimension B indicated in the illustration.

(g) Determine the plunger adjusting shim size by using the following formula and chart.

$$\text{New adjusting shim thickness} = T + (B - 3.3)$$

T ... Thickness of used shim

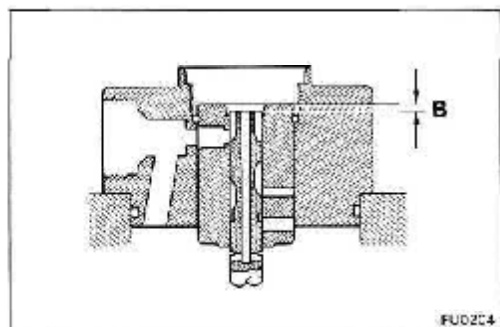
B ... Measured plunger position

Plunger adjusting shim selection chart

		Measured clearance																				
		mm																				
		2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.0	3.1	3.2-3.4	3.5	3.6	3.7	3.8	3.9	4.0	4.1	4.2	4.3	4.4	
Installed shim	mm	1.9											2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.9
	2.0									1.9			2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.9	
	2.1								1.9	1.9			2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.9		
	2.2							1.9	1.9	2.0	2.1		2.4	2.5	2.6	2.7	2.8	2.9	2.9			
	2.3						1.9	1.9	2.0	2.1			2.5	2.6	2.7	2.8	2.9	2.9				
	2.4					1.9	1.9	2.0	2.1	2.2			2.6	2.7	2.8	2.9	2.9					
	2.5				1.9	1.9	2.0	2.1	2.2	2.3			2.7	2.8	2.9	2.9						
	2.6			1.9	1.9	2.0	2.1	2.2	2.3	2.4			2.8	2.9	2.9							
	2.7		1.9	1.9	2.0	2.1	2.2	2.3	2.4	2.5			2.9	2.9								
	2.8	1.9	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.6			2.9									
2.9	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7													

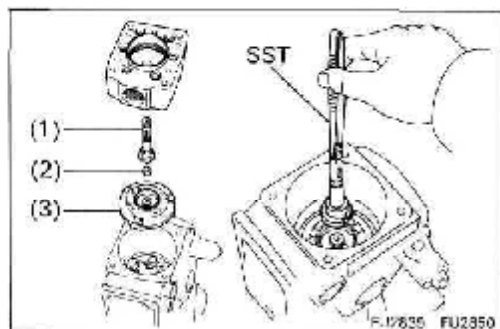
Plunger adjusting shim thickness	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9
mm (in.)	(0.075)	(0.079)	(0.083)	(0.087)	(0.091)	(0.094)	(0.098)	(0.102)	(0.106)	(0.110)	(0.114)

EXAMPLE: The 2.4 mm (0.094 in.) shim is installed and measured clearance is 3.7 mm (0.146 in.). Replace the 2.4 mm (0.094 in.) shim with a 2.8 mm (0.110 in.) shim.



(h) Install a new plunger adjusting shim and recheck dimension B.

Dimension B: 3.2-3.4 mm (0.126-0.134 in.)



- (i) Remove the distributive head.
 - (j) Using SST, remove the following parts:
 - (1) Pump plunger
 - (2) Plunger adjusting shim
 - (3) Face camplate
- SST 09260-5401 2 (09269-54030)