TEST SPECIFICATION

Manufacturer	TOYOTA	ENGINE TYPE	2L-TE	Injection pump	0 9 6 5 0 0 − 0 0 9 0
Vehicle model	Hi-Lux			Pump Select SW	3
Rated voltage	14 V	Injection order	A-B-C-D	Rotation	Clockwise viewed from drive side
Governor	Electoronical control	Timer	Electoronical control	Injection interval	90° ±30′

1. TEST CONDITIONS

1) Nozzle	093400-0540	4) Feed pressure	0.2 kg/cm²
2) Nozzle opening pressure	150±1 kg/cm²	5) High pressure pipe	φ2 × φ6 × 840 mm
3) Test oil	SAE J967(ISO 4113)	6) Fuel temperature	40~43 ℃

2. BREAK-IN DRIVE

Pump speed (rpm)	ECD CONTROLLER Setting				Condition	Remarks
	Display Selector	Injection Quantity Command	Duty Ratio Command	FCV Switch		
1200	−	580	−	−	No fuel leaks etc.	More than 5 minutes

3. INSPECTION OF FUEL TEMPERATURE SENSOR

Pump speed (rpm)	ECD CONTROLLER Setting				Sensor Resistance (KΩ)	Remarks
	Display Selector	Injection Quantity Command	Duty Ratio Command	FCV Switch		
−	Fuel temperature	−	−	−	−	−

4. INSPECTION OF NE SENSOR

Pump speed (rpm)	ECD CONTROLLER Setting				Sensor Output Voltage (V)	Remarks
	Display Selector	Injection Quantity Command	Duty Ratio Command	FCV Switch		
100	Np	−	−	−	More than 0.1	−

5. ADJUSTMENT OF INTERNAL PRESSURE

Pump speed (rpm)	ECD CONTROLLER Setting				Internal Pressure (kg/cm²)	Remarks
	Display Selector	Injection Quantity Command	Duty Ratio Command	FCV Switch		
2000	−	4DB	0	−	8.1~8.4	By regulating valve
1200		580	0	−	6.8~7.6	

6. OVERFLOW QUANTITY CHECK

Pump speed (rpm)	ECD CONTROLLER Setting				Overflow Quantity (cc/1000st)	Remarks
	Display Selector	Injection Quantity Command	Duty Ratio Command	FCV Switch		
2000	−	4DB	0	−	150~250	The overflow valve belonging to the pump should be used for checking

7．ADJUSTMENT OF TIMER

Pump speed (rpm)	ECD CONTROLLER Setting				Timer stroke (mm)	Remarks
	Display Selector	Injection Quantity Command	Duty Ratio Command	FCV Switch		
1200	－	580	0	－	9.4±0.4	Select shim
			30	－	5.4±1.0	
			60	－	1.5±0.9	
			100	－	0	
200		6E0	0	－	More than 3.6	
2000		4DB	0	－	10.3±0.4	

8．ADJUSTMENT OF FUEL DELIVERY

Pump speed (rpm)	ECD CONTROLLER Setting				Fuel delivery (cc／200st)	Max. spread in delivery (cc／200st)	
	Display Selector	Injection Quantity Command	Duty Ratio Command	FCV Switch			
350	－	55E	0	－	2.4～2.8	0.5	By replacing θ correction resistor
2000		4DB	0	－	12.6～13.2	0.7	By adjusting screw
1200		580	0	－	13.8～14.6	0.6	
2400		2A4	0	－	3.8～6.8	－	
100		6E0	0	－	13.6～16.0	1.4	
600		5C5	0	－	10.6～11.6	0.7	
850		517	0	－	6.8～7.6	－	
1900		170	0	－	Less than 2.0	－	
2450		16C	0	－	Less than 4.8	－	

< θ correction resister>

Resistance value (KΩ)	Mark(Last 3 digits)	Part No.	Resistance value(KΩ)	Mark (Last 3 digits)	Part No.
0．154	001	096526-0011	0．681	017	096526-0171
0．174	002	096526-0021	0．732	018	096526-0181
0．196	003	096526-0031	0．782	019	096526-0191
0．221	004	096526-0041	0．866	020	096526-0201
0．243	005	096526-0051	0．931	021	096526-0211
0．267	006	096526-0061	1．020	022	096526-0221
0．294	007	096526-0071	1．100	023	096526-0231
0．316	008	096526-0081	1．210	024	096526-0241
0．348	009	096526-0091	1．330	025	096526-0251
0．383	010	096526-0101	1．430	026	096526-0261
0．412	011	096526-0111	1．580	027	096526-0270
0．453	012	096526-0121	1．780	028	096526-0281
0．487	013	096526-0131	1．960	029	096526-0291
0．523	014	096526-0141	2．210	030	096526-0301
0．576	015	096526-0151	2．490	031	096526-0311
0．619	016	096526-0161			

NOTE:
When the resistance value of θ correction resistor is raised 1 level, the injection pump is increased as follows,
0.08 cc/200st (Pump speed at 350 rpm) 0.12 cc/200st (Pump speed at 1000 rpm)

9. INSPECTION OF FUEL CUT SOLENOID

Pump speed (rpm)	ECD CONTROLLER Setting				Check
	Display Selector	Injection Quantity Command	Duty Ratio Command	FCV Switch	
－	－	－	－	－	－

10. ADJUSTMENT OF CAM ANGLE

Pump speed (rpm)	ECD CONTROLLER Setting				Cam angle (°)	Remarks
	Display Selector	Injection Quantity Command	Duty Ratio Command	FCV Switch		
350	CAM ANGLE	55E	100	－	Shown in display	

< Adjustment >

CA (°)	τ Correction resistor part No.	Resistance value (KΩ)	CA (°)	τ Correction resistor part No.	Resistance value (KΩ)
2.68	096525-0230	0.068	5.93	096525-0091	0.487
3.07	096525-0250	0.100	6.09	096525-0101	0.523
3.30	096525-0260	0.121	6.32	096525-0111	0.576
3.42	096525-0270	0.133	6.49	096525-0121	0.619
3.64	096525-0280	0.154	6.72	096525-0131	0.681
3.83	096525-0290	0.174	6.89	096525-0141	0.732
4.03	096525-0300	0.196	7.06	096525-0151	0.787
4.24	096525-0310	0.221	7.23	096525-0240	0.845
4.42	096525-0011	0.243	7.28	096525-0161	0.866
4.61	096525-0021	0.267	7.45	096525-0171	0.931
4.80	096525-0031	0.294	7.66	096525-0181	1.020
4.95	096525-0041	0.316	7.82	096525-0191	1.100
5.16	096525-0051	0.348	8.03	096525-0201	1.210
5.38	096525-0061	0.384	8.23	096525-0211	1.330
5.54	096525-0071	0.412	8.37	096525-0221	1.430
5.76	096525-0081	0.453			

11. SERVICE STANDARD

KF dimension (mm)	:	5.8～6.0	Drive shaft diameter(mm)	:	φ 20
K dimension (mm)	:	3.3±0.1	Delivery valve holder installation torque (kgf・m)	:	5.5～6.5
Timing mark remarking position	:	A	Cam lift distance	0.39	mm

12.

H＝3.0～5.2mm