

조 정 데 이 터

INJ. PUMP CALIBRATION DATA

Ass'y No. : 1 0 4 7 8 0 - 4 0 6 0

E/G Type : J2 3.0

A kind of car: WT

Drawing No. : 97 - 03 - 05 - 07

Company : KIA MOTORS

General Ass'y No. :

Date : 1997. 03. 07.

Pre- Stroke :

Pump rotation : Clockwise(viewed from Drive side)

1. Test Conditions

| | | | |
|-----|--|-----|---|
| 1-1 | Nozzle : 105780-0000(KP-DN12SD12T) | 1-4 | Injection pipe : 2mm × 6mm × 840mm |
| 1-2 | Nozzle holder : 105780-2080 | 1-5 | Fuel oil temperature : 45+5 °C |
| 1-3 | Nozzle opening pressure : 150+5 Kg/cm ² | 1-6 | Supply pump pressure : 0.2 Kg/cm ² |

2. Setting

| | | Pump speed (r/min) | Settings | Charge air press (mmHg) | Difference in delivery |
|-----|----------------------------|-----------------------|------------------------------------|----------------------------|---------------------------|
| 2-1 | Timing device travel | 1,200 | 3.7 ± 0.2 mm | | |
| 2-2 | Supply pump pressure | 1,200 | 4.6 ± 0.3 Kg/cm ² | | |
| 2-3 | Full load delivery(FULL) | 1,200 | 57.5 ± 1.0 cc/1000st | | |
| 2-4 | Idle speed regulation | 385 | 12.0 ± 2.0 cc/1000st | | |
| 2-5 | Start | 100 | 70.0-90.0 cc/1000st | | |
| 2-6 | Full load speed regulation | 2,325 | 20.0 ± 2.0 cc/1000st | | |
| 2-7 | Load- timer Adjustment | 1,250 | Q = 45.0 ± 1.0 T = 2.6 ± 0.2 mm | | |

3. Test Specifications

| | | | Charge air press | |
|-----|---------------------------|---------------------------------|--------------------|--------------------|
| 3-1 | Timing device | N = r/min mm | 600 0.5 ± 0.4 | 1,200 3.7 ± 0.2 |
| 3-2 | Supply pump | N = r/min Kg/cm ² | 600 (2.8 ± 0.3) | 1,200 4.6 ± 0.3 |
| 3-3 | Overflow delivery | N = r/min | | cc/1000st |
| 3-4 | Fuel injection quantities | | | |

| Speed control lever position | Pump speed (r/min) | Fuel delivery (cc/1000st) | Charge air press (mmHg) | 4. Dimensions | |
|---------------------------------|-----------------------|------------------------------|----------------------------|---------------------|--------------|
| Full- load speed | 500 | (53.8 ± 2.0) | | K | 3.3 ± 0.1 mm |
| | 1,200 | 57.5 ± 1.0 | | KF | 5.9 ± 0.1 mm |
| | 2,000 | (49.4 ± 2.0) | | MS | 1.0 ± 0.1 mm |
| | 2,325 | 20.0 ± 2.0 | | BCS | |
| | 2,500 | Below 10.0 | | Control lever angle | |
| Switch OFF Magnet valve | | M/V OFF Q=0 | | α | 20° ± 4° |
| Idling | 600 | Below 5.0 | | A | mm |
| | | | | β | (35° ± 5°) |
| 3-5 Solenoid valve | Max. cut-in voltage | | 8 V | B | mm |
| | Test voltage | | 12 ~ 14V | | |

DPICO

DOOWON PRECISION INDUSTRY Co., Ltd.

Service Department

503-5, SHINSA-DONG, KANGNAM-GU, SEOUL, KOREA TEL: (02) 510-7241 ~ 7, FAX: (02) 510-7110

※ Load timer adjustment.

1. Adjust the governor shaft so that the clearance between the end of the flange and the end of the governor shaft is approximately 3mm and then lock the nut.

2. Load timer adjustment.

(1) Fix the control lever in the position satisfying the following conditions:

Boost Pressure :

Pump speed : 1,200 r/min

Fuel injection quantity : 45.0 ± 1.0 cc/1000st

(2) With the control lever positioned as described in (1) above adjust the governor sleeve so that the timer reduction value (ΔT) conforms to the specified values (item 2-7)

$T = 17 \sim 22$ N·m (1.7~2.2 Kg·m)

3. Confirmation of Timer Characteristics.

Fix the control lever in the position satisfying the following conditions and confirm the timer stroke.

| Control lever position | | | Specified Values | |
|------------------------|--|--------------------------|----------------------|-------------------------------|
| Pump speed (r/min) | Fuel injection quantity (cc/1000st) | Boost pressure (mmHg) | Timer stroke (mm) | Timer reduction value (mm) |
| 1,200 | 57.5 ± 1.0 | | 3.7 ± 0.2 | |
| | 45.0 ± 1.0 | | 2.6 ± 0.2 | (1.1) |
| | 35.0 ± 1.0 | | (1.2 ± 0.4) | (2.5) |
| 385 | 10.1 ± 2.0 | | 0 | |