

Telephone:  
 Fax:  
 VAT Registration No.:

| Notes                                 |  |                     | Specified value             | Measured value |
|---------------------------------------|--|---------------------|-----------------------------|----------------|
| <b>Vehicle identification</b>         |  |                     |                             |                |
|                                       | No. of cylinders   | Type                | 4/OHV                       |                |
|                                       | Capacity   | cc                  | 4104                        |                |
| <b>Injection system</b>               |  |                     |                             |                |
|                                       | Pump type  |                     | Rotary                      |                |
|                                       | Injection sequence   |                     | 1-3-4-2                     |                |
|                                       | Nozzle opening pressure - new/used                         | bar                 | 1)177-186 2)185-195/162-186 |                |
|                                       | Leak rate (dribble)  | bar/secs            | 9,8-19,6/10                 |                |
| <b>Tuning and emissions</b>           |  |                     |                             |                |
|                                       | Plunger travel (pump)                                      | mm ABDC             | 0,87-0,93                   |                |
|                                       | Crankshaft position (n = ATDC)                             | °BTDC               | 0                           |                |
|                                       | Adjusting method   | Engine/Pump         | Pointer/ Dial gauge         |                |
|                                       | Idle speed   | rpm                 | 725±25                      |                |
|                                       | Idle speed - alternative                                   | rpm                 | AC=950±50                   |                |
|                                       | Rated no load speed  | rpm                 | 3900-4100                   |                |
| <b>Starting and charging</b>          |  |                     |                             |                |
|                                       | Battery  | V/RC(Ah)            | 12/24                       |                |
|                                       | Alternator output  | A/V/rpm             | 50/- 24V=30/-               |                |
| <b>Service checks and adjustments</b> |  |                     |                             |                |
|                                       | Valve clearance - INLET                                    | mm                  | 0,20 hot                    |                |
|                                       | Valve clearance - EXHAUST                                  | mm                  | 0,36 hot                    |                |
|                                       | Compression pressure                                       | bar                 | 19,6-31,4                   |                |
|                                       | Turbo boost pressure                                       | bar/rpm             | 0,29-0,53/3700              |                |
|                                       | Oil pressure   | bar/rpm             | 2,5-5,9/3000                |                |
|                                       | Radiator cap   | bar                 | 0,74-1,03                   |                |
|                                       | Thermostat (primary/secondary) open                        | °C                  | 80-84                       |                |
|                                       | Drive belt tension - alternator/PAS/AC                     | mm                  | 14-20                       |                |
|                                       | Drive belt tension - AC                                    | mm                  | 12-16                       |                |
| <b>Lubricants and capacities</b>      |  |                     |                             |                |
|                                       | Engine oil grade - cold climate                            | SAE                 | 5W/30                       |                |
|                                       | Engine oil grade - moderate climate                        | SAE                 | 10W/30                      |                |
|                                       | Engine oil grade - hot climate                             | SAE                 | 20W/50                      |                |
|                                       | Engine oil classification                                  | API/ACEA            | CF-4/B2                     |                |
|                                       | Engine oil grade - alternative - moderate climate          | SAE                 | 15W/40                      |                |
|                                       | Engine oil classification - alternative - moderate climate | API/ACEA            | CF-4/B2                     |                |
|                                       | Engine with filter(s)                                      | litres              | 9,3                         |                |
|                                       | Manual gearbox oil grade                                   | SAE                 | 75W/90                      |                |
|                                       | Manual gearbox 4/5 speed                                   | litres              | 3,2                         |                |
|                                       | Differential oil grade - rear                              | SAE                 | 90                          |                |
|                                       | Differential rear  | litres              | 10,5 in=3,8 12 in=5,0       |                |
|                                       | Cooling system   | litres              | 13,5                        |                |
|                                       | Brake fluid  | Type                | DOT 3                       |                |
|                                       | Power steering fluid                                       | Type                | Dexron II                   |                |
|                                       | Power steering fluid                                       | litres              | 0,8                         |                |
| <b>Tightening torques</b>             |  |                     |                             |                |
|                                       | Cylinder head instructions                                 |                     |                             |                |
| <b>Cylinder head</b>                  |  |                     |                             |                |
| 44                                    |  | Maximum bolt length |                             |                |
|                                       | Stage 1  | Tighten             | 49 Nm                       |                |
|                                       | Stage 2  | Tighten             | 90°                         |                |

Manufacturer: Toyota  
 Engine code: 15B-FT  
 Tuned for:

Model: Dyna 4,1D  
 Output: 100 (136) 3200  
 Year: 1997-01

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| Stage 1                              | Stage 2 | Renew bolts/nuts | Tightening torque   |
|--------------------------------------|---------|------------------|---------------------|
| <b>Other tightening torques</b>      |         |                  |                     |
| Main bearings                        |         | Renew bolts/nuts | No                  |
| Main bearings                        | Stage 1 |                  | 100 Nm              |
| Main bearings                        | Stage 2 |                  | 200 Nm              |
| Big end bearings                     |         | Renew bolts/nuts | No                  |
| Big end bearings                     | Stage 1 |                  | 69 Nm               |
| Big end bearings                     | Stage 2 |                  | 90°                 |
| Oil pump to cylinder block           |         |                  | x3=44 Nm x5=21 Nm   |
| Sump bolts                           |         |                  | 19 Nm               |
| Sump drain bolt                      |         |                  | 35 Nm               |
| Flywheel/driveplate                  |         |                  | 160 Nm              |
| Clutch to flywheel                   |         |                  | x6=19 Nm x8=38 Nm   |
| Crankshaft pulley/damper centre bolt |         |                  | 294 Nm              |
| Camshaft sprocket/gear               |         |                  | 38 Nm               |
| Camshaft/rocker cover                |         |                  | 11 Nm               |
| Inlet manifold to cylinder head      |         |                  | 19 Nm               |
| Exhaust manifold to cylinder head    |         |                  | 44 Nm               |
| Exhaust downpipe to manifold         |         |                  | 62 Nm               |
| Water pump                           |         |                  | 25 Nm               |
| Injector/clamp                       |         |                  | 21 Nm               |
| Injector pipe unions                 |         |                  | 25 Nm               |
| Fuel/injection pump flange           |         |                  | 19 Nm               |
| Injector nozzle to holder            |         |                  | 29 Nm               |
| Steering wheel                       |         |                  | 34 Nm               |
| Steering rack/box mounting           |         |                  | 181 Nm              |
| Steering track rod end               |         |                  | 152 Nm              |
| Brake disc to hub                    |         | Front            | 125 Nm              |
| 93 Brake caliper to carrier          |         | Front            |                     |
| Brake caliper carrier to hub         |         | Front            | 135 Nm              |
| Road wheels                          |         |                  | x5=515 Nm x6=560 Nm |

### Brake disc and drum dimensions

|                                     |  |                |                   |
|-------------------------------------|--|----------------|-------------------|
| Minimum disc thickness - ventilated |  | Front          | 28 mm             |
| Disc runout                         |  | Front          | 0,12 mm           |
| Maximum drum diameter               |  | Rear           | 297 mm TWA=322 mm |
| Minimum pad thickness               |  | Front          | 3 mm              |
| Minimum shoe thickness              |  | Rear           | 1,5 mm TWA=4,2 mm |
| Parking brake travel                |  | No. of notches | 6-10              |

### Air conditioning

|                                       |  |                 |            |
|---------------------------------------|--|-----------------|------------|
| Air conditioning refrigerant          |  | Type            | R134a      |
| Air conditioning refrigerant quantity |  | grams           | 650±50     |
| Air conditioning oil                  |  | Type            | Dens Oil 8 |
| 76 Air conditioning oil quantity      |  | cm <sup>3</sup> |            |
| Air conditioning oil viscosity        |  | ISO             | 46         |

### Autodata Note 44

D = 11,6 mm Min  
Fig. 21809

### Autodata Note 93

Outer bolts = 16 Nm  
Inner bolts = 59 Nm

### Autodata Note 76

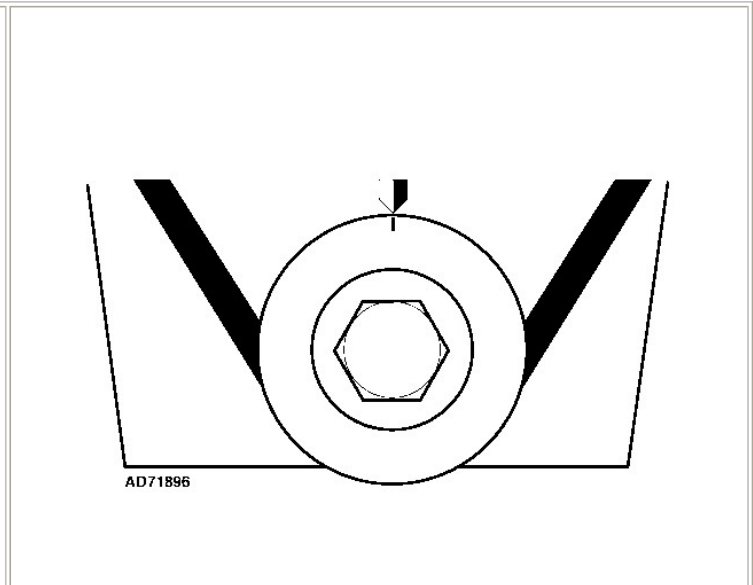
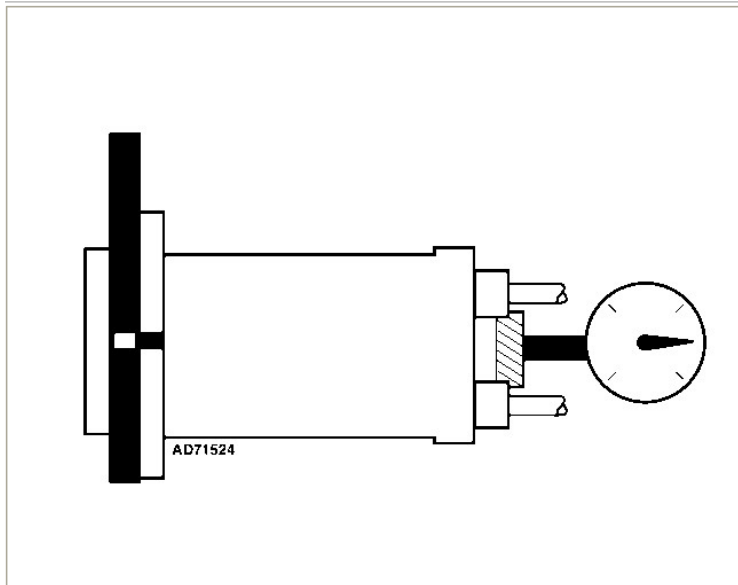
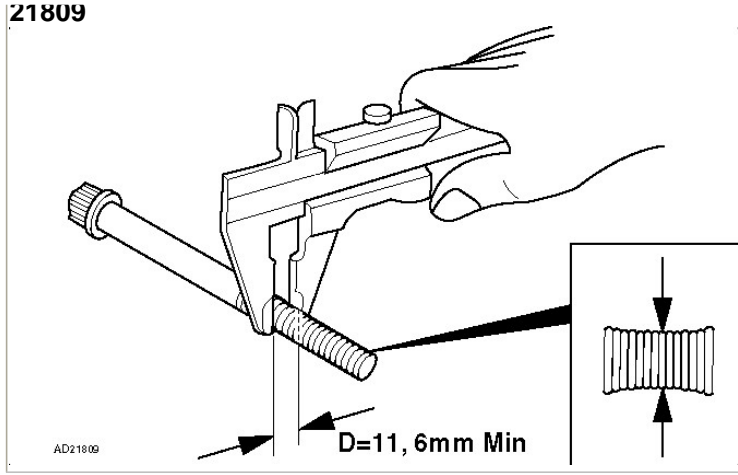
Refer to underbonnet label.

**Manufacturer:** Toyota  
**Engine code:** 15B-FT  
**Tuned for:**

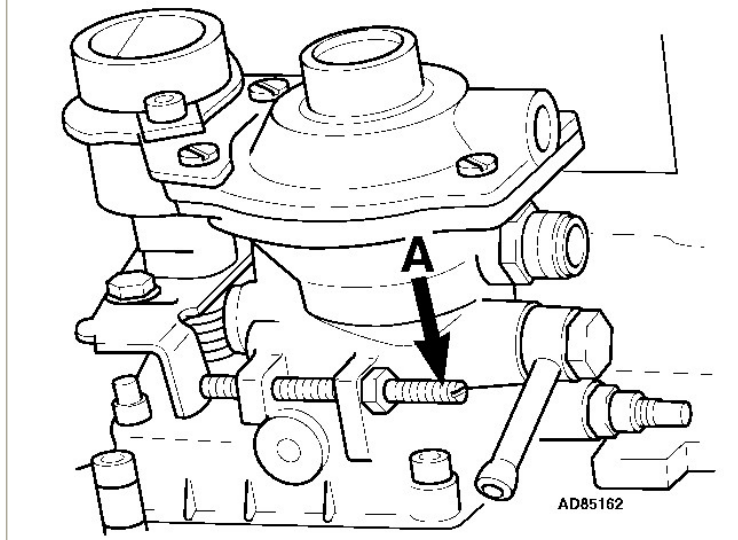
**Model:** Dyna 4,1D  
**Output:** 100 (136) 3200  
**Year:** 1997-01

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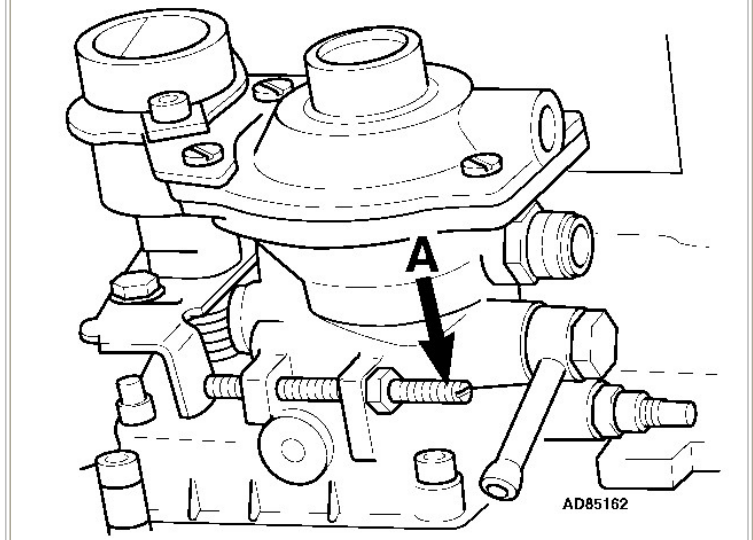
<http://dieselmater.ucoz.ru>



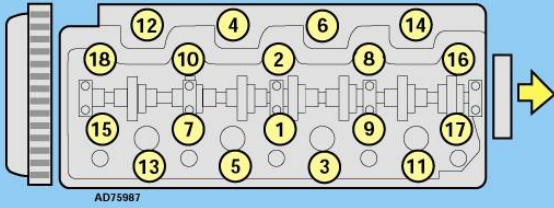
Idle speed adjustment (A)



Idle speed adjustment (A)



## Igniting sequence

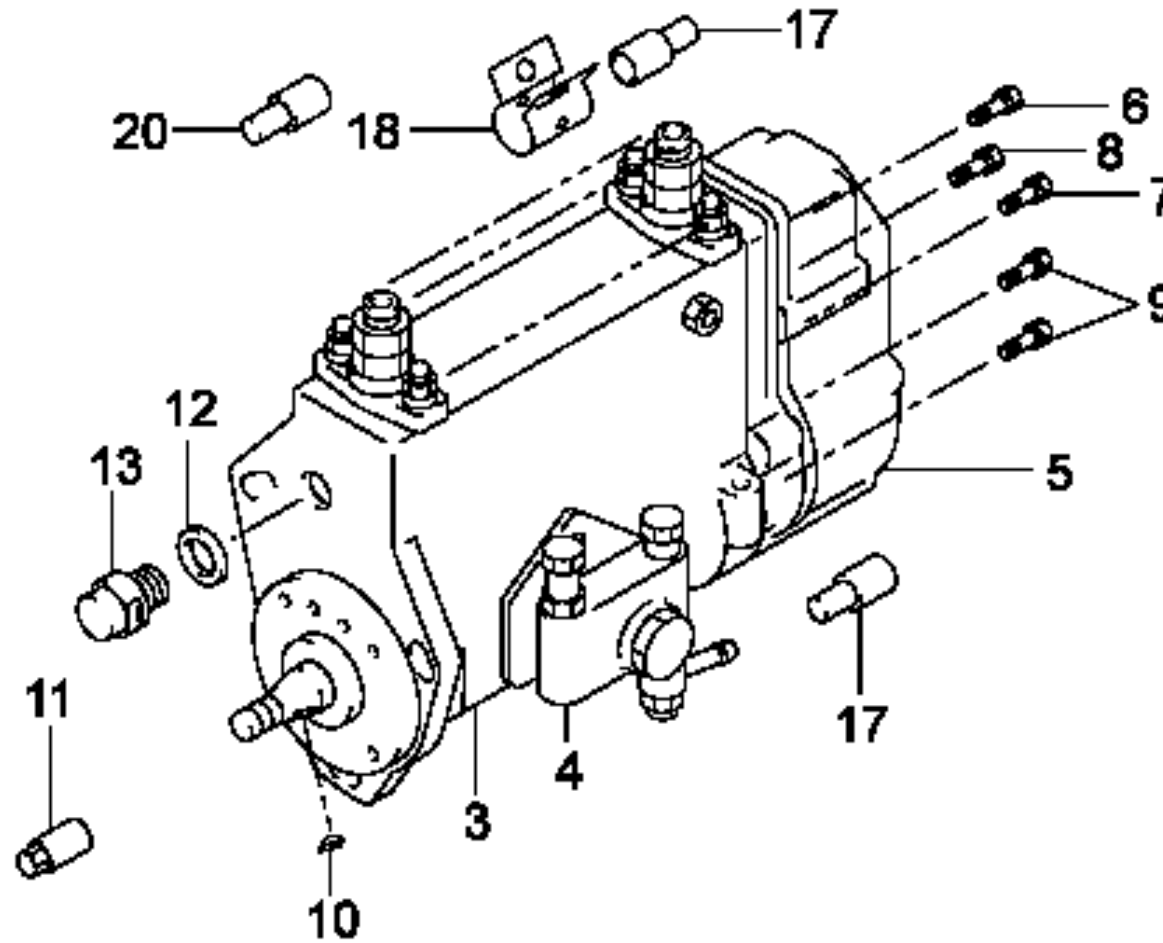


**Manufacturer:** Toyota  
**Engine code:** 15B-FT  
**Tuned for:**

**Model:** Dyna 4,1D  
**Output:** 100 (136) 3200  
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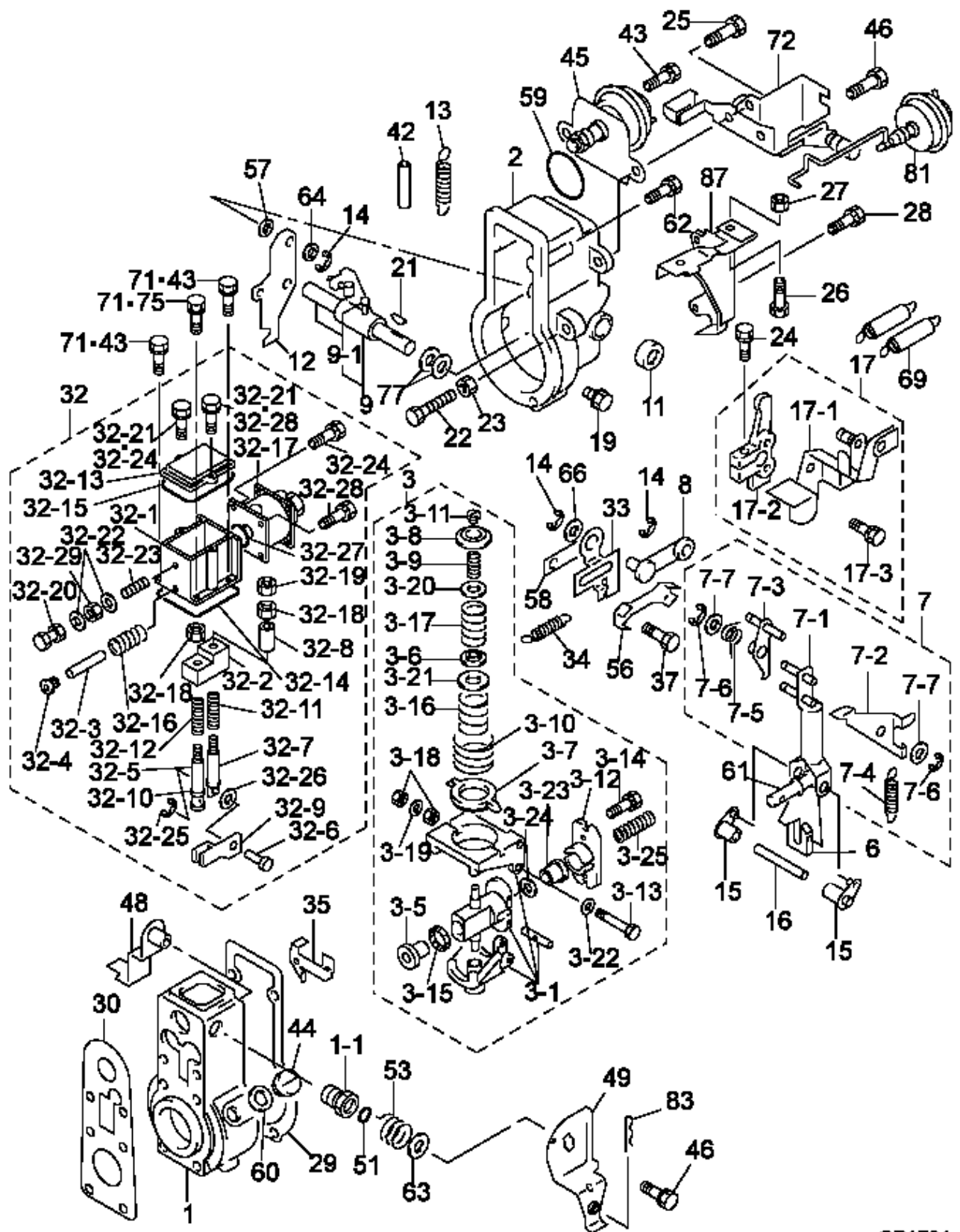
PF0119

# Parts List

Compo. P/N: 092000-1801

Assy P/N: 092000-1800

| S | M | Illust.No. | Part Name          | DENSO P/N   | Manu. P/N   | QTY | I/C | Start | End  | Remarks       |
|---|---|------------|--------------------|-------------|-------------|-----|-----|-------|------|---------------|
|   |   | 0          | PUMP ASSY, INJECTI | 092000-1801 | 22100-5C360 | 01  |     |       |      | NB4,R801      |
|   |   | 3          | BODY ASSY, INJECTI | 190100-1001 | 22120-5C360 | 01  |     |       |      | NB4           |
|   |   | 4          | PUMP ASSY, FUEL FE | 092100-3100 | 22510-5C350 | 01  |     |       |      | KS            |
|   |   | 5          | GOVERNOR ASSY, MEC | 091300-5691 | 22410-5C360 | 01  |     |       |      | R801          |
|   |   | 6          | BOLT, W/WASHER     | 949047-6880 | 90099-04481 | 02  |     |       |      | M8,L14        |
|   |   | 7          | BOLT, W/WASHER     | 949047-6900 | 90099-04483 | 01  |     |       |      | M8,L20        |
|   |   | 8          | BOLT, W/WASHER     | 949047-6910 | 90099-04484 | 01  |     |       |      | M8,L22        |
|   |   | 9          | BOLT, W/WASHER     | 949047-6890 | 90099-04482 | 04  |     |       |      | M8,L16        |
|   |   | 10         | KEY, WOODRUFF      | 090021-0040 | 22353-5C350 | 01  |     |       |      | W5,H7.5       |
|   |   | 11         | NUT, TIMER ROUND   | 090012-0340 | 22611-5C350 | 01  |     |       |      | M18X1.5       |
|   |   | 12         | WASHER, COPPER PLA | 949018-1550 | 23338-54020 | 01  |     |       |      | T1.5          |
|   |   | 13         | COVER, CONTROL RAC | 090018-0471 | 22116-5C350 | 01  |     |       |      |               |
|   |   | 17         | CAP                | 090285-0080 |             | 01  |     |       | 0506 |               |
|   |   | 17         | CAP                | 090285-0080 |             | 02  |     | 0506  |      |               |
|   |   | 18         | CLIP, CORD         | 090391-0040 | 22568-68210 | 01  |     |       |      | FOR FULL-LOAD |
|   |   | 21         | CAP                | 090285-0100 |             | 01  |     | 0506  |      |               |



OP1704

# Parts List

Compo. P/N: 091300-5691

Assy P/N: 092000-1800

| S | M | Illust.No. | Part Name          | DENSO P/N   | Manu. P/N      | QTY | I/C | Start | End  | Remarks      |
|---|---|------------|--------------------|-------------|----------------|-----|-----|-------|------|--------------|
|   |   | 0          | GOVERNOR ASSY, MEC | 091300-5691 | 22410-5C360    | 01  |     |       |      | R801H        |
|   |   | 1          | HOUSING SUB-ASSY,  | 091310-0210 | 22401-5C350    | 01  |     |       |      |              |
|   |   | 1-1        | BUSHING, BEARING   | 091016-0020 | 22196-73600-71 | 01  |     |       |      |              |
|   |   | 2          | COVER ASSY, GOVERN | 091450-0891 | 22790-5C350    | 01  |     |       |      |              |
|   |   | 3          | FLYWEIGHT ASSY     | 091330-1592 | 22720-5C360    | 01  |     |       |      |              |
|   |   | 3-1        | FLYWEIGHT SUB-ASSY | 091370-0112 | 22745-5C350    | 01  |     |       |      |              |
|   |   | 3-5        | BUSHING ASSY, CAMS | 091340-0081 | 22730-5C350    | 01  |     |       |      |              |
|   |   | 3-6        | SEAT, GOVERNOR SPR | 091377-0341 | 22481-58230    | 02  |     |       |      |              |
|   |   | 3-7        | SEAT, GOVERNOR SPR | 091363-0010 | 22551-78030    | 02  |     |       |      |              |
|   |   | 3-8        | GUIDE, SPRING      | 091393-0091 | 22728-78031    | 02  |     |       |      |              |
|   |   | 3-9        | SPRING, MECHANICAL | 090918-1710 | 22412-78030    | 02  |     |       |      |              |
|   |   | 3-10       | SPRING, IDLING     | 091389-1130 | 22725-5C361    | 02  |     |       |      | L26.6,YELLOW |
|   |   | 3-11       | NUT, ADJUSTING     | 091395-0020 | 22729-78030    | 02  |     |       | 9610 | M8,1.25      |
|   |   | 3-11       | NUT, ADJUSTING     | 091395-0050 | 22729-5C440    | 02  | D   | 9611  |      | M8,0.75      |
|   |   | 3-12       | BUSHING, GUIDE     | 091405-0080 | 22738-5C350    | 01  |     |       |      |              |
|   |   | 3-13       | BOLT, BELLCRANK    | 091401-0040 | 22736-78030    | 01  |     |       | 9904 | BOLTTYPE     |
|   |   | 3-13       | BOLT, BELLCRANK    | 091401-0061 | 22736-5C360    | 01  | D   | 9905  |      | PIN TYPE     |
|   |   | 3-14       | BOLT, W/WASHER     | 91418-06161 | 90091-20614    | 02  |     |       | 9512 | M6,L16       |
|   |   | 3-14       | BOLT, W/WASHER     | 949047-8260 | 90099-04491    | 02  | A   | 9512  |      | M6,L16       |
|   |   | 3-15       | DAMPER, FLYWEIGHT  | 091337-0100 | 22723-5C350    | 06  |     |       |      |              |
|   |   | 3-16       | SPRING, IDLING     | 091389-0580 | 22725-5C360    | 02  |     |       |      | L25.7,YELLOW |
|   |   | 3-17       | SPRING, SPEED CONT | 091391-0491 | 22726-5C350    | 02  |     |       |      |              |
|   |   | 3-18       | NUT, HEXAGON       | 90160-06051 | 90092-10101    | 02  |     |       | 9904 | M6,L5        |
|   |   | 3-18       | E-RING             | 090894-0101 | 22365-5C360    | 02  | D   | 9905  |      | PIN TYPE     |
|   |   | 3-19       | WASHER, LOCK       | 091403-0010 | 22737-77121    | 01  |     |       | 9904 | D16,T0.5     |
|   |   | 3-20       | WASHER, LOCK       | 091403-0190 | 22737-78033    | 2C  |     |       |      | T0.4         |
|   |   | 3-20       | WASHER, LOCK       | 091403-0200 | 22737-78034    | 2C  |     |       |      | T0.6         |
|   |   | 3-20       | WASHER, LOCK       | 091403-0410 | 22416-78051    | 2C  |     |       |      | T1.0         |
|   |   | 3-20       | WASHER, LOCK       | 091403-0700 | 22737-5C350    | 2C  |     |       |      | T0.3         |
|   |   | 3-20       | WASHER, LOCK       | 091403-0710 | 22737-5C360    | 2C  |     |       |      | T0.2         |
|   |   | 3-21       | WASHER, LOCK       | 091403-0160 | 22737-78030    | 2C  |     |       |      | T0.2         |
|   |   | 3-21       | WASHER, LOCK       | 091403-0170 | 22737-78031    | 2C  |     |       |      | T0.4         |
|   |   | 3-21       | WASHER, LOCK       | 091403-0180 | 22737-78032    | 2C  |     |       |      | T0.6         |
|   |   | 3-21       | WASHER, LOCK       | 091403-0400 | 22416-78050    | 2C  |     |       |      | T1.0         |
|   |   | 3-22       | WASHER, PLATE, SK  | 949013-3970 | 90093-30611    | 01  |     |       | 9904 | D12,T0.5     |
|   |   | 3-22       | WASHER, LOCK       | 091403-0800 | 22416-5C360    | 02  | D   | 9905  |      | ID6,T1.0     |
|   |   | 3-23       | NUT, ROUND         | 091334-0100 | 22722-5C350    | 01  |     |       |      |              |
|   |   | 3-24       | SHIM               | 091331-0110 | 22713-58230    | 1C  |     |       |      | T1.6         |
|   |   | 3-24       | SHIM               | 091331-0120 | 22713-58231    | 1C  |     |       |      | T1.65        |
|   |   | 3-24       | SHIM               | 091331-0130 | 22713-58232    | 1C  |     |       |      | T1.7         |
|   |   | 3-24       | SHIM               | 091331-0140 | 22713-58233    | 1C  |     |       |      | T1.75        |
|   |   | 3-24       | SHIM               | 091331-0150 | 22713-58234    | 1C  |     |       |      | T1.8         |
|   |   | 3-24       | SHIM               | 091331-0160 | 22713-58235    | 1C  |     |       |      | T1.85        |
|   |   | 3-24       | SHIM               | 091331-0170 | 22713-58236    | 1C  |     |       |      | T1.9         |
|   |   | 3-24       | SHIM               | 091331-0180 | 22713-58237    | 1C  |     |       |      | T1.95        |
|   |   | 3-24       | SHIM               | 091331-0190 | 22713-58238    | 1C  |     |       |      | T2.0         |
|   |   | 3-24       | SHIM               | 091331-0200 | 22713-58239    | 1C  |     |       |      | T2.1         |



# Parts List

Compo. P/N: 091300-5691

Assy P/N: 092000-1800

| S | M | Illust.No. | Part Name          | DENSO P/N   | Manu. P/N   | QTY | I/C | Start | End  | Remarks       |
|---|---|------------|--------------------|-------------|-------------|-----|-----|-------|------|---------------|
|   |   | 3-24       | SHIM               | 091331-0210 | 22714-58230 | 1C  |     |       |      | T2.2          |
|   |   | 3-24       | SHIM               | 091331-0220 | 22714-58231 | 1C  |     |       |      | T2.3          |
|   |   | 3-24       | SHIM               | 091331-0230 | 22714-5C351 | 1C  |     |       |      | T2.05         |
|   |   | 3-24       | SHIM               | 091331-0240 | 22714-5C352 | 1C  |     |       |      | T2.15         |
|   |   | 3-24       | SHIM               | 091331-0250 | 22714-5C353 | 1C  |     |       |      | T2.25         |
|   |   | 3-25       | SPRING, IDLING     | 091389-0940 | 22725-5C351 | 01  |     |       |      | L21.75,YELLOW |
|   |   | 6          | SLIDER             | 091426-0081 | 22761-78031 | 01  |     |       |      |               |
|   |   | 7          | LEVER ASSY, FLOATI | 091430-0110 | 22702-78030 | 01  |     |       |      |               |
|   |   | 7-1        | LEVER SUB-ASSY, FL | 091436-0212 | 22015-78031 | 01  |     |       |      |               |
| S |   | 7-2        | STOPPER SUB-ASSY,  | 091695-0041 | 22014-78031 | 01  |     |       |      |               |
|   |   | 7-3        | LEVER SUB-ASSY, CO | 090940-0410 | 22490-78030 | 01  |     |       |      |               |
| S |   | 7-4        | SPRING, RETURN     | 091042-0580 | 22432-78032 | 01  |     |       |      |               |
| S |   | 7-5        | SPRING, RETURN     | 091042-0610 | 22432-78033 | 01  |     |       |      |               |
|   |   | 7-6        | E-RING             | 090894-0020 | 22365-48010 | 02  |     |       |      |               |
|   |   | 7-7        | WASHER, PLATE, SK  | 949013-1390 | 90099-01505 | C   |     |       |      | T0.1          |
|   |   | 7-7        | WASHER, PLATE, SK  | 949013-2370 | 90099-01334 | C   |     |       |      | T0.05         |
|   |   | 7-7        | WASHER, PLATE, SK  | 949013-3960 | 90099-30610 | C   |     |       |      | T0.2          |
|   |   | 7-7        | WASHER, PLATE, SK  | 949013-5080 |             | C   |     |       |      | T0.3          |
|   |   | 7-7        | WASHER, PLATE, SK  | 949013-5090 | 90099-01519 | C   |     |       |      | T0.4          |
|   |   | 8          | SHACKLE SUB-ASSY   | 090980-0341 | 22016-78031 | 01  |     |       |      |               |
|   |   | 9          | ARM ASSY, GUIDE    | 091480-0200 | 22460-5C360 | 1C  |     |       |      | NO MARKING    |
|   |   | 9          | ARM ASSY, GUIDE    | 091480-0210 | 22460-5C361 | 1C  |     |       |      | MARKING II    |
|   |   | 9          | ARM ASSY, GUIDE    | 091480-0220 | 22460-5C362 | 1C  |     |       |      | MARKING III   |
| S |   | 9-1        | OVER-HAUL KIT, GOV | 190890-0780 | 22408-5C360 | 01  |     |       |      |               |
| S |   | 11         | SEAL, OIL          | 949150-2522 | 90099-15036 | 01  |     |       |      |               |
|   |   | 12         | PLATE, CAM         | 091017-0390 | 22456-5C360 | 01  |     |       |      | *1            |
| S |   | 13         | SPRING, RETURN     | 091042-0600 | 22432-78031 | 01  |     |       |      |               |
|   |   | 14         | E-RING             | 090894-0020 | 22365-48010 | 03  |     |       |      |               |
|   |   | 15         | LEVER SUB-ASSY, SU | 091560-0021 | 22011-78030 | 02  |     |       |      |               |
|   |   | 16         | SHAFT, LEVER SUPPO | 091563-0050 | 22558-78031 | 01  |     |       |      |               |
|   |   | 17         | LEVER SET          | 091290-1230 | 22409-5C360 | 01  |     |       | 9701 |               |
|   |   | 17         | LEVER SET          | 091290-1350 | 22409-5C440 | 01  | B   | 9702  |      |               |
|   |   | 17-1       | LEVER SET          | 091291-0480 |             | 01  |     |       |      |               |
|   |   | 17-2       | LEVER, ADJUSTING   | 091071-3742 |             | 01  |     |       |      |               |
|   |   | 17-3       | BOLT, W/WASHER     | 91418-06161 | 90091-20614 | 02  |     |       |      | M6,L16        |
|   |   | 19         | PLUG, SCREW        | 091167-0110 | 22446-78030 | 02  |     |       |      |               |
|   |   | 21         | KEY, WOODRUFF      | 949130-0030 | 90099-13013 | 01  |     |       |      |               |
|   |   | 22         | STOPPER            | 090821-0254 | 22443-68150 | 01  |     |       |      |               |
|   |   | 23         | NUT                | 091169-0024 | 22581-78140 | 01  |     |       |      |               |
|   |   | 24         | BOLT, W/WASHER     | 91418-06201 | 90091-20608 | 01  |     |       |      | M6,L20        |
|   |   | 25         | BOLT, SOCKET       | 096449-0050 | 22395-54270 | 01  |     |       |      |               |
|   |   | 26         | BOLT, HEXAGON      | 949040-7220 | 90099-04486 | 01  |     |       |      | M6,L35        |
|   |   | 27         | NUT, HEXAGON       | 90160-06051 | 90092-10101 | 01  |     |       |      | M6            |
|   |   | 28         | BOLT, W/WASHER     | 949047-1760 | 90099-04328 | 02  |     |       |      | M6,L40        |
|   |   | 29         | GASKET, COVER      | 091517-0090 | 22774-58270 | 01  |     |       |      |               |
|   |   | 30         | GASKET, PUMP BODY  | 090119-0160 | 22561-5C350 | 01  |     |       |      |               |
|   |   | 32         | HOUSING SUB-ASSY,  | 091690-2750 | 22306-5C350 | 01  |     |       | 0506 |               |

# Parts List

Compo. P/N: 091300-5691

Assy P/N: 092000-1800

| S | M | Illust.No. | Part Name          | DENSO P/N   | Manu. P/N   | QTY | I/C | Start | End  | Remarks  |
|---|---|------------|--------------------|-------------|-------------|-----|-----|-------|------|----------|
|   |   | 32         | HOUSING SUB-ASSY,  | 091690-2980 | 22306-5C440 | 01  | B   | 0506  |      |          |
|   |   | 32-1       | HOUSING, FULL LOAD | 091691-0051 | 22559-5C350 | 01  |     |       |      |          |
|   |   | 32-3       | SHAFT, LEVER SUPPO | 091563-0060 | 22558-5C350 | 01  |     |       |      |          |
|   |   | 32-4       | PLUG, SCREW        | 090317-0270 | 22795-5C350 | 01  |     |       |      | M10,L9.5 |
|   |   | 32-5       | ADAPTER            | 090919-0321 | 22433-78031 | 01  |     |       |      |          |
|   |   | 32-6       | PIN, CONNECTING    | 090983-0300 | 22423-78030 | 01  |     |       |      |          |
|   |   | 32-7       | ADAPTER            | 090919-0421 | 22433-5C350 | 01  |     |       |      |          |
|   |   | 32-8       | COLLAR             | 090835-0050 | 22749-5C350 | 01  |     |       |      |          |
|   |   | 32-9       | CAM, FULL STOP     | 091521-2480 | 22557-5C350 | 01  |     |       |      |          |
|   |   | 32-10      | BUSHING            | 090953-0181 | 22554-78030 | 01  |     |       |      |          |
|   |   | 32-11      | SPRING, MECHANICAL | 090918-2050 | 22411-5C350 | 01  |     |       |      |          |
|   |   | 32-12      | SPRING, MECHANICAL | 090918-1630 | 22411-78030 | 01  |     |       |      |          |
|   |   | 32-13      | PLATE, COVER       | 091051-0651 | 22555-5C350 | 01  |     |       |      |          |
|   |   | 32-14      | O-RING             | 949140-4200 | 90099-14081 | 01  |     |       | 9911 | ID54.5   |
|   |   | 32-14      | GASKET             | 091694-0230 | 22442-78360 | 01  | A   | 9912  |      | 51X51 MM |
|   |   | 32-15      | O-RING             | 949140-2030 | 90099-14039 | 01  |     |       | 9911 | ID52.5   |
|   |   | 32-15      | GASKET             | 091694-0220 | 22442-5C360 | 01  | A   | 9912  |      |          |
|   |   | 32-16      | SPRING, MECHANICAL | 090918-2110 | 22411-5C360 | 01  |     |       |      |          |
|   |   | 32-17      | COMPENSATOR SUB-AS | 192600-0870 | 22540-5C360 | 01  |     |       | 0506 |          |
|   |   | 32-17      | COMPENSATOR SUB-AS | 192600-1040 | 22540-5C440 | 01  | B   | 0506  |      |          |
|   |   | 32-18      | NUT, HEXAGON       | 90160-06051 | 90092-10101 | 02  |     |       |      | M6,L5    |
|   |   | 32-19      | NUT, HEXAGON       | 90170-06361 | 94120-40600 | 01  |     |       |      | M6,L36   |
|   |   | 32-20      | CAP                | 090032-0180 | 22777-5C360 | 01  |     |       | 0506 | M6,L12   |
|   |   | 32-20      | NUT, CAP           | 091031-0290 | 22437-5C440 | 01  | D   | 0506  |      | M6,L9    |
|   |   | 32-22      | WASHER, DRAIN SCRE | 090248-0010 | 22378-76010 | 02  |     |       |      | T1.0     |
|   |   | 32-23      | SCREW, STOPPER     | 091524-0320 | 22438-5C350 | 01  |     |       | 0506 | L25      |
|   |   | 32-23      | SCREW, STOPPER     | 091524-0390 | 22776-78034 | 01  | D   | 0506  |      | L31.5    |
|   |   | 32-24      | BOLT, W/WASHER     | 91418-06161 | 90091-20614 | 04  |     |       |      | M6,L16   |
|   |   | 32-25      | E-RING             | 090894-0020 | 22365-48010 | 01  |     |       |      | D11,T0.7 |
|   |   | 32-26      | WASHER, PLATE, SK  | 949013-2370 | 90099-01334 | 1C  |     |       |      | T0.05    |
|   |   | 32-26      | WASHER, PLATE, SK  | 949013-5020 | 90099-01540 | 1C  |     |       |      | T0.1     |
|   |   | 32-26      | WASHER, PLATE, SK  | 949013-5030 | 90099-01541 | 1C  |     |       |      | T0.2     |
|   |   | 32-27      | O-RING             | 90801-20260 | 96711-24026 | 01  |     |       |      | ID26.2   |
|   |   | 32-28      | BOLT, W/WASHER     | 949047-4620 | 90099-04587 | 02  |     |       |      | M6,L16   |
|   |   | 32-29      | NUT, LOCK          | 096342-0010 | 22775-77121 | 01  |     |       | 0506 | M6,L5    |
|   |   | 32-29      | NUT                | 091169-0080 | 22581-78150 | 01  | D   | 0506  |      | M6,L11.3 |
|   |   | 33         | ARM SUB-ASSY       | 091159-0480 | 22408-5C350 | 01  |     |       |      |          |
| S |   | 34         | SPRING, RETURN     | 091042-0590 | 22432-78030 | 01  |     |       |      |          |
|   |   | 35         | PLATE              | 090878-0190 | 22458-5C350 | 01  |     |       |      |          |
|   |   | 37         | BOLT, DIAPHRAGM CO | 090573-0160 | 22329-5C350 | 02  |     |       |      |          |
|   |   | 42         | TUBE, RUBBER       | 949330-6540 | 90099-33856 | 01  |     |       |      |          |
|   |   | 43         | BOLT, W/WASHER     | 91418-06161 | 90091-20614 | 04  |     |       | 0506 | M6,L16   |
|   |   | 43         | BOLT, W/WASHER     | 91418-06161 | 90091-20614 | 01  |     | 0506  |      | M6,L16   |
|   |   | 44         | PLUG, SCREW        | 091543-0031 | 22795-77121 | 01  |     |       |      |          |
|   |   | 45         | IDLE UP SUB-ASSY   | 096470-0611 | 22305-5C360 | 01  |     |       |      |          |
|   |   | 46         | BOLT, W/WASHER     | 91418-06141 | 22188-73600 | 03  |     |       |      | M6,L14   |
|   |   | 48         | ARM SUB-ASSY       | 091159-0141 | 22408-78030 | 01  |     |       |      |          |

# Parts List

Compo. P/N: 091300-5691

Assy P/N: 092000-1800

| S | M | Illust.No. | Part Name          | DENSO P/N   | Manu. P/N      | QTY | I/C | Start | End  | Remarks        |
|---|---|------------|--------------------|-------------|----------------|-----|-----|-------|------|----------------|
|   |   | 49         | LEVER SUB-ASSY, ST | 091090-1600 | 22490-5C350    | 01  |     |       |      |                |
|   |   | 51         | O-RING             | 949140-0130 | 22195-73600-71 | 01  |     |       |      | ID9.0          |
| S |   | 53         | SPRING, RETURN     | 091042-0840 | 22432-78050    | 01  |     |       |      |                |
|   |   | 56         | WASHER, LOCK       | 091403-0460 | 22416-78130    | 01  |     |       |      | T0.5           |
|   |   | 57         | WASHER, LOCK       | 091403-0420 | 22416-58270    | 01  |     |       |      |                |
|   |   | 58         | PLATE              | 090721-0150 | 22567-78130    | 01  |     |       |      |                |
|   |   | 59         | O-RING             | 949140-2190 | 90099-14069    | 01  |     |       |      | ID39.5         |
|   |   | 60         | GASKET             | 091694-0170 | 22561-78030    | 01  |     |       |      |                |
|   |   | 61         | SHAFT, SLIDING WEI | 091411-0180 | 22752-78030    | 1C  |     |       |      | L31.9          |
|   |   | 61         | SHAFT, SLIDING WEI | 091411-0190 | 22752-78031    | 1C  |     |       |      | L31.7          |
|   |   | 61         | SHAFT, SLIDING WEI | 091411-0200 | 22752-78032    | 1C  |     |       |      | L31.5          |
|   |   | 61         | SHAFT, SLIDING WEI | 091411-0210 | 22752-78033    | 1C  |     |       |      | L31.3          |
|   |   | 61         | SHAFT, SLIDING WEI | 091411-0220 | 22752-78034    | 1C  |     |       |      | L31.1          |
|   |   | 61         | SHAFT, SLIDING WEI | 091411-0230 | 22752-78035    | 1C  |     |       |      | L30.9          |
|   |   | 61         | SHAFT, SLIDING WEI | 091411-0240 | 22752-78036    | 1C  |     |       |      | L30.7          |
|   |   | 61         | SHAFT, SLIDING WEI | 091411-0390 | 22752-5C351    | 1C  |     |       |      | L31.8          |
|   |   | 61         | SHAFT, SLIDING WEI | 091411-0400 | 22752-5C352    | 1C  |     |       |      | L31.6          |
|   |   | 61         | SHAFT, SLIDING WEI | 091411-0410 | 22752-5C353    | 1C  |     |       |      | L31.4          |
|   |   | 61         | SHAFT, SLIDING WEI | 091411-0420 | 22752-5C354    | 1C  |     |       |      | L31.2          |
|   |   | 61         | SHAFT, SLIDING WEI | 091411-0430 | 22752-5C355    | 1C  |     |       |      | L31.0          |
|   |   | 61         | SHAFT, SLIDING WEI | 091411-0440 | 22752-5C356    | 1C  |     |       |      | L30.8          |
|   |   | 61         | SHAFT, SLIDING WEI | 091411-0460 | 22752-5C357    | 1C  |     |       |      | L32.0          |
|   |   | 61         | SHAFT, SLIDING WEI | 091411-0470 | 22752-5C358    | 1C  |     |       |      | L32.1          |
|   |   | 62         | BOLT, W/WASHER     | 91418-06351 | 90091-20615    | 04  |     |       |      | M6,L35         |
|   |   | 63         | WASHER, PLATE, SK  | 949013-1960 | 90099-02315    | 1C  |     |       |      | T0.1           |
|   |   | 63         | WASHER, PLATE, SK  | 949013-1970 | 90099-01369    | 1C  |     |       |      | T0.2           |
|   |   | 63         | WASHER, PLATE, SK  | 949013-1980 | 90099-01381    | 1C  |     |       |      | T0.5           |
|   |   | 63         | WASHER, PLATE, SK  | 949013-2220 | 90099-01521    | 1C  |     |       |      | T0.5           |
|   |   | 64         | WASHER, LOCK       | 091403-0300 | 22416-78032    | 1C  |     |       |      | T0.2           |
|   |   | 64         | WASHER, LOCK       | 091403-0310 | 22416-78033    | 1C  |     |       |      | T0.3           |
|   |   | 64         | WASHER, LOCK       | 091403-0320 | 22416-78034    | 1C  |     |       |      | T0.4           |
|   |   | 64         | WASHER, LOCK       | 091403-0330 | 22416-78035    | 1C  |     |       |      | T0.5           |
|   |   | 66         | WASHER, STEEL PLAT | 949011-6220 | 90099-01511    | 01  |     |       |      |                |
| S |   | 69         | SPRING SUB-ASSY, R | 091041-1111 | 22440-5C350    | 02  |     |       |      |                |
|   |   | 71         | BOLT, WASHER HEAD  | 949048-1460 |                | 04  |     | 0506  |      | M6,L16         |
|   |   | 72         | ARM, SPRING        | 090973-0130 | 22424-5C350    | 01  |     |       |      |                |
|   |   | 75         | BOLT, W/WASHER     | 949047-4620 | 90099-04587    | 01  |     | 0506  |      | M6,L16         |
|   |   | 77         | WASHER, LOCK       | 091403-0230 | 22737-78035    | 2C  |     |       |      | T0.5           |
|   |   | 77         | WASHER, LOCK       | 091403-0240 | 22737-78036    | 2C  |     |       |      | T0.55          |
|   |   | 77         | WASHER, LOCK       | 091403-0250 | 22737-78037    | 2C  |     |       |      | T0.6           |
|   |   | 77         | WASHER, LOCK       | 091403-0260 | 22737-78038    | 2C  |     |       |      | T0.65          |
|   |   | 77         | WASHER, LOCK       | 091403-0270 | 22737-78039    | 2C  |     |       |      | T0.7           |
|   |   | 77         | WASHER, LOCK       | 091403-0280 | 22416-78030    | 2C  |     |       |      | T0.75          |
|   |   | 77         | WASHER, LOCK       | 091403-0290 | 22416-78031    | 2C  |     |       |      | T0.8           |
|   |   | 81         | ACTUATOR SET, IDLE | 096472-1061 | 22579-5C350    | 01  |     |       |      |                |
|   |   | 83         | PIN, LEVER CONECTI | 096455-0070 | 22338-54410    | 01  |     |       |      | NOMNAL DIA.4.0 |
|   |   | 87         | BRACKET SUB-ASSY,  | 090690-0891 | 22699-5C360    | 01  |     |       | 9701 |                |

# Parts List

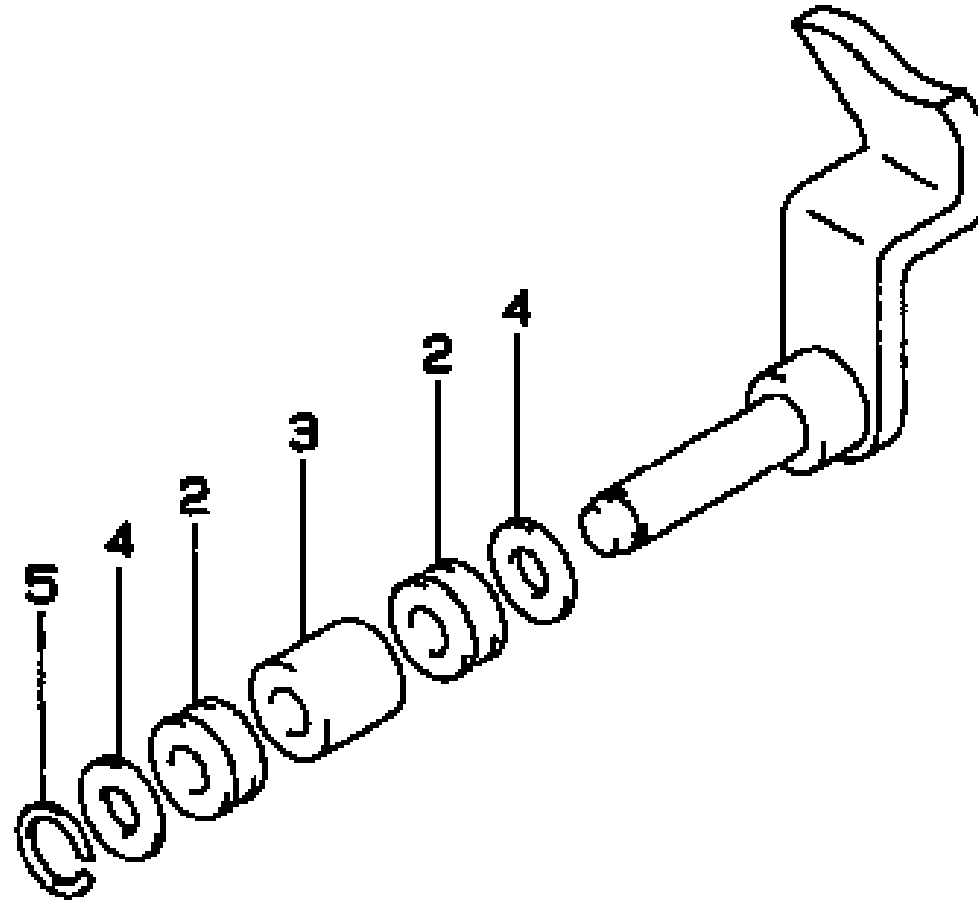
Compo. P/N: 091300-5691

Assy P/N: 092000-1800

| S | M | Illust.No. | Part Name         | DENSO P/N   | Manu. P/N   | QTY | I/C | Start | End | Remarks |
|---|---|------------|-------------------|-------------|-------------|-----|-----|-------|-----|---------|
|   |   | 87         | BRACKET SUB-ASSY, | 090690-0930 | 22699-5C440 | 01  | B   | 9702  |     |         |

DENSO P/N : 091291-0480

Manufacturer : TOYOTA



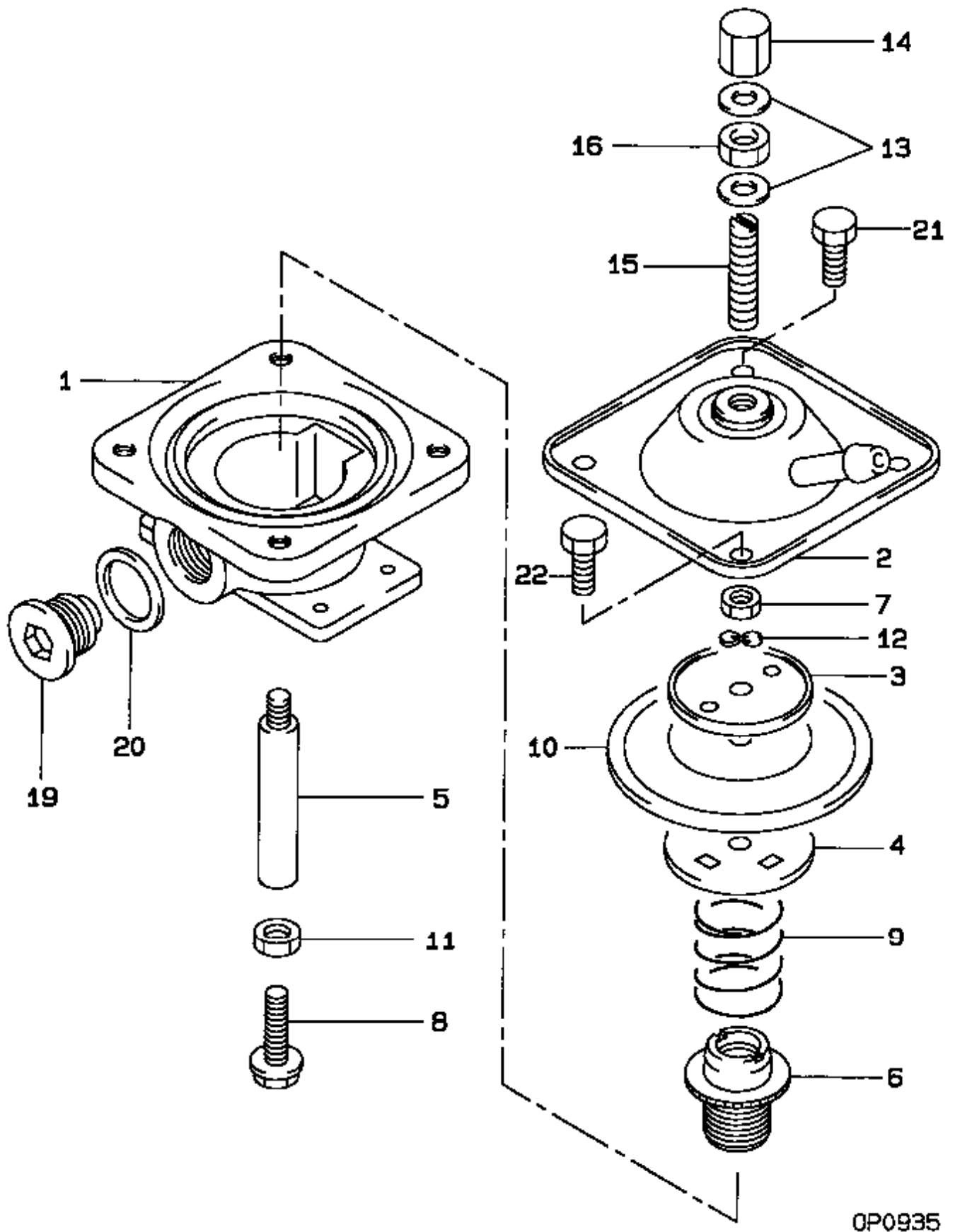
PG0105

# Parts List

Compo. P/N: 091291-0480

Assy P/N: 092000-1800

| S | M | Illust.No. | Part Name         | DENSO P/N   | Manu. P/N | QTY | I/C | Start | End | Remarks  |
|---|---|------------|-------------------|-------------|-----------|-----|-----|-------|-----|----------|
|   |   | 0          | LEVER SET         | 091291-0480 |           | 01  |     |       |     |          |
|   |   | 2          | COLLAR            | 090835-0120 |           | 02  |     |       |     | L6.0     |
|   |   | 3          | COLLAR            | 090835-0111 |           | 01  |     |       |     | L11.5    |
|   |   | 4          | WASHER, PLATE, SK | 949013-8960 |           | 02  |     |       |     | T1,ID6.2 |
|   |   | 5          | RING, SHAFT SNAP  | 90557-06001 |           | 01  |     |       |     | ID6      |



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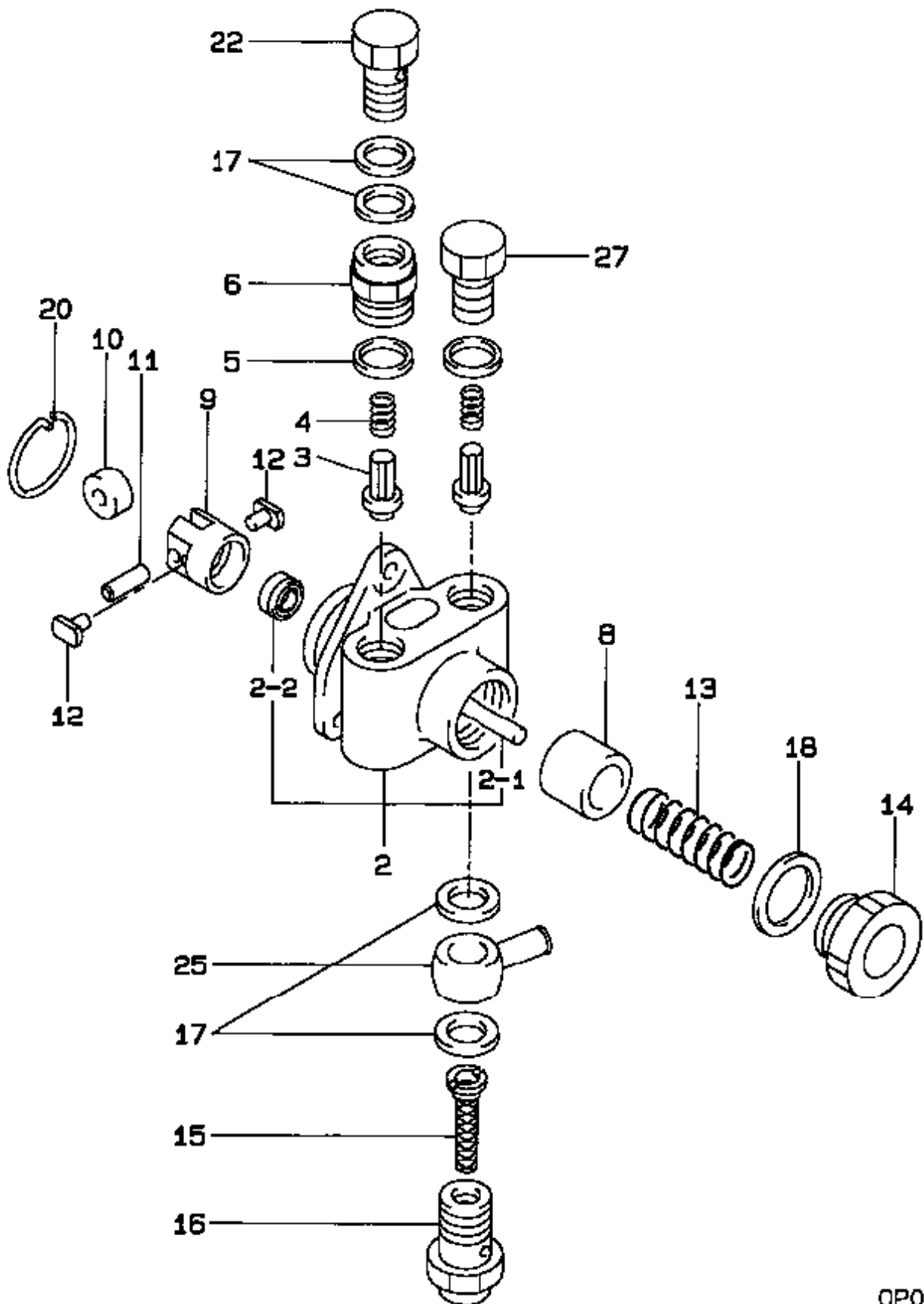
# Parts List

Compo. P/N: 192600-0870

Assy P/N: 092000-1800

| S | M | Illust.No. | Part Name          | DENSO P/N   | Manu. P/N      | QTY | I/C | Start | End | Remarks |
|---|---|------------|--------------------|-------------|----------------|-----|-----|-------|-----|---------|
|   |   | 0          | COMPENSATOR SUB-AS | 192600-0870 | 22540-5C360    | 01  |     |       |     |         |
|   |   | 1          | HOUSING, BOOST COM | 192611-0011 | 22711-5C350    | 01  |     |       |     |         |
|   |   | 2          | COVER SUB-ASSY     | 192620-0080 | 22703-5C350    | 01  |     |       |     |         |
|   |   | 3          | WASHER, THRUST     | 192633-0010 | 22549-17140    | 01  |     |       |     |         |
|   |   | 4          | SEAT, SPRING, UPR  | 192632-0010 | 22551-5C350    | 01  |     |       |     |         |
|   |   | 5          | ROD, PUSH          | 192627-0010 | 22687-5C350    | 01  |     |       |     |         |
|   |   | 6          | BUSHING, GUIDE     | 192635-0010 | 22554-5C350    | 01  |     |       |     |         |
|   |   | 7          | NUT, HEXAGON       | 90160-06051 | 90092-10101    | 01  |     |       |     |         |
|   |   | 8          | SCREW              | 192628-0020 | 22433-5C360    | 01  |     |       |     |         |
|   |   | 9          | SPRING, BOOST COMP | 192634-0200 | 22546-5C350    | 01  |     |       |     |         |
|   |   | 10         | DIAPHRAGM          | 192631-0010 | 22542-54260    | 01  |     |       |     |         |
|   |   | 11         | NUT, HEXAGON       | 90170-06361 | 94120-40600    | 01  |     |       |     |         |
|   |   | 12         | WASHER, WAVE       | 949017-0490 | 90206-06066    | 01  |     |       |     | T0.5    |
|   |   | 13         | WASHER, COPPER PLA | 949018-1020 | 90201-08106    | 02  |     |       |     | T1      |
|   |   | 14         | NUT, CAP           | 091031-0020 | 22437-77130    | 01  |     |       |     |         |
|   |   | 15         | SCREW, STOP        | 091166-0080 | 22165-21910-71 | 01  |     |       |     | L29     |
|   |   | 16         | NUT, HEXAGON, W/HO | 948053-0130 | 90099-05133    | 01  |     |       |     |         |
|   |   | 19         | PLUG, SCREW        | 090524-0041 | 22157-5C360    | 01  |     |       |     |         |
|   |   | 20         | WASHER, COPPER PLA | 949018-1040 | 90099-02188    | 01  |     |       |     | T1.5    |
|   |   | 21         | BOLT, HEXAGON      | 90107-06121 | 22185-73500-71 | 03  |     |       |     |         |
|   |   | 22         | BOLT, HEXAGON, W/  | 949045-0120 | 90099-04485    | 01  |     |       |     | M6,L12  |





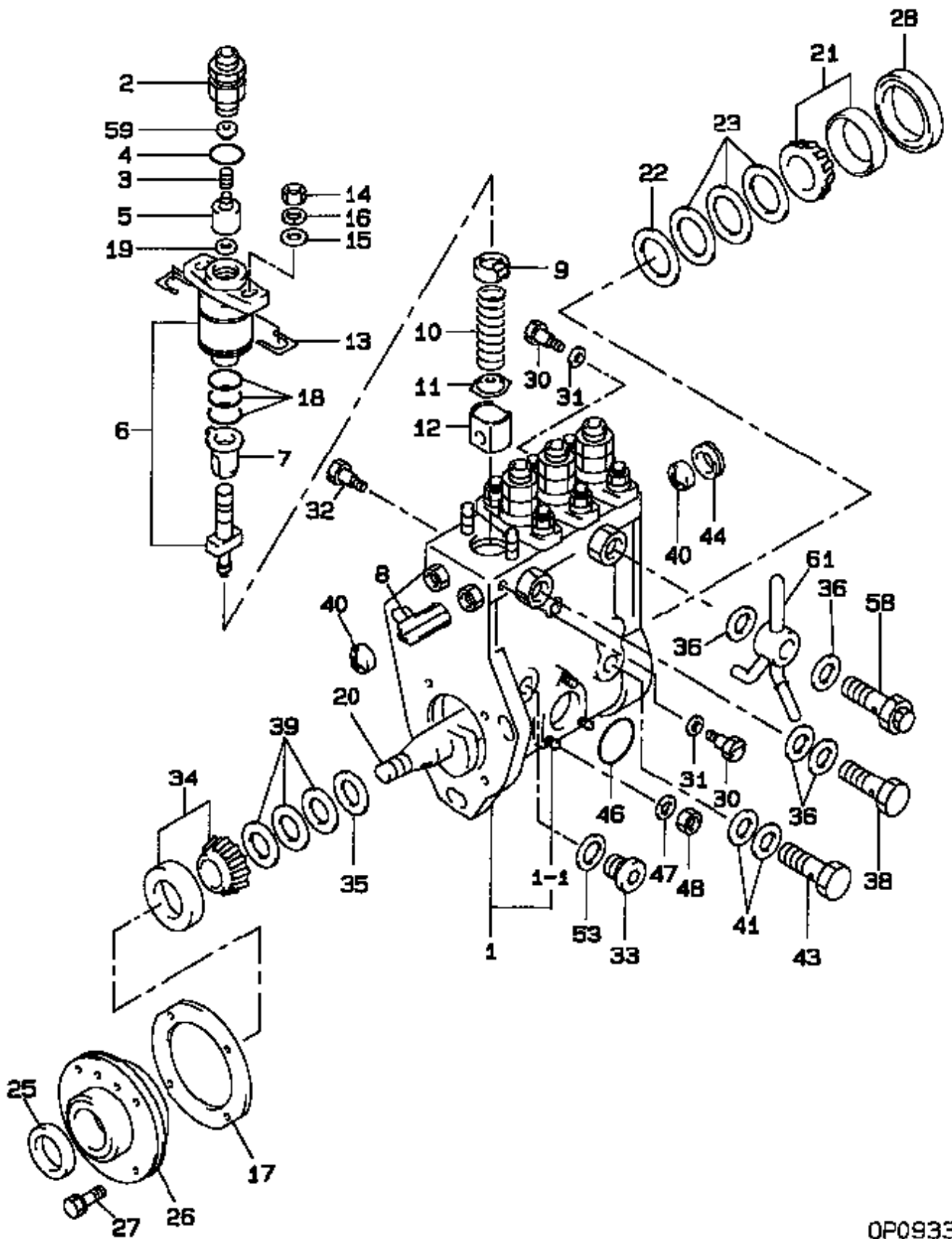
OP092B

# Parts List

Compo. P/N: 092100-3100

Assy P/N: 092000-1800

| S | M | Illust.No. | Part Name          | DENSO P/N   | Manu. P/N   | QTY | I/C | Start | End | Remarks |
|---|---|------------|--------------------|-------------|-------------|-----|-----|-------|-----|---------|
|   |   | 0          | PUMP ASSY, FUEL FE | 092100-3100 | 22510-5C350 | 01  |     |       |     |         |
|   |   | 2          | HOUSING SUB-ASSY,  | 092120-0680 | 22502-5C350 | 01  |     |       |     |         |
|   |   | 2-1        | ROD, FEED PUMP PUS | 092168-0150 |             | 01  |     |       |     |         |
| S |   | 2-2        | SEAL, OIL          | 949150-2700 |             | 01  |     |       |     |         |
| S |   | 3          | VALVE, FEED PUMP C | 092121-0011 | 22515-77020 | 02  |     |       |     |         |
|   |   | 4          | SPRING, FEED PUMP  | 092124-0010 | 90501-05141 | 02  |     |       |     |         |
|   |   | 5          | GASKET, CHECK VALV | 092125-0010 | 22513-77020 | 02  |     |       |     |         |
|   |   | 6          | SUPPORT, VALVE     | 092127-0010 | 22534-5C350 | 01  |     |       |     |         |
| S |   | 8          | PISTON, FEED PUMP  | 092171-0011 | 22518-77020 | 01  |     |       |     |         |
|   |   | 9          | TAPPET, FEED PUMP  | 092174-0050 | 22524-5C350 | 01  |     |       |     |         |
|   |   | 10         | ROLLER, FEED PUMP  | 092176-0010 | 22525-77020 | 01  |     |       |     |         |
|   |   | 11         | PIN, FEED PUMP TAP | 092178-0040 | 22526-5C350 | 01  |     |       |     |         |
|   |   | 12         | BLOCK, FEED PUMP T | 092179-0070 | 22527-5C350 | 02  |     |       |     |         |
| S |   | 13         | SPRING, FEED PUMP  | 092182-0120 | 22519-5C350 | 01  |     |       |     |         |
|   |   | 14         | PLUG, FEED PUMP PI | 092184-0021 | 22521-77020 | 01  |     |       |     |         |
|   |   | 15         | FILTER, FEED PUMP  | 092220-0040 | 22529-67010 | 01  |     |       |     |         |
|   |   | 16         | SCREW, FUEL PIPE H | 092223-0070 | 22535-46010 | 01  |     |       |     |         |
|   |   | 17         | WASHER, FUEL PIPE  | 090222-0070 | 94712-77121 | 04  |     |       |     | T1.2    |
|   |   | 18         | WASHER, COPPER PLA | 949018-1240 | 22522-67010 | 01  |     |       |     | T1      |
|   |   | 20         | RING, SNAP         | 949072-0940 | 22528-77020 | 01  |     |       |     | ID28    |
|   |   | 22         | SCREW, HOLLOW      | 949180-0310 | 90099-18010 | 01  |     |       |     | M14,L10 |
|   |   | 25         | NIPPLE SUB-ASSY, S | 092218-0420 | 22548-5C350 | 01  |     |       |     |         |
|   |   | 27         | PLUG, FEED PUMP CH | 092126-0010 | 22512-77020 | 01  |     |       |     |         |



0P0933

# Parts List

Compo. P/N: 190100-1001

Assy P/N: 092000-1800

| S | M | Illust.No. | Part Name          | DENSO P/N   | Manu. P/N   | QTY | I/C | Start | End  | Remarks  |
|---|---|------------|--------------------|-------------|-------------|-----|-----|-------|------|----------|
|   |   | 0          | BODY ASSY, INJECTI | 190100-1001 | 22120-5C360 | 01  |     |       |      | NB4      |
|   |   | 1          | HOUSING SUB-ASSY,  | 090110-5240 | 22101-5C360 | 01  |     |       | 0004 |          |
|   |   | 1          | HOUSING SUB-ASSY,  | 090110-5880 | 22101-5C361 | 01  | D   | 0005  |      |          |
|   |   | 1-1        | BOLT, STUD         | 949043-0010 | 90099-04071 | 03  |     |       |      | M6,L26   |
|   |   | 2          | HOLDER, DELIVERY V | 090131-1091 | 22131-5C350 | 04  |     |       | 0406 |          |
|   |   | 2          | HOLDER, DELIVERY V | 090131-1220 |             | 04  | B   | 0406  |      |          |
| S |   | 3          | SPRING, DELIVERY V | 090136-1211 | 22148-5C350 | 04  |     |       |      |          |
|   |   | 4          | O-RING             | 949140-2570 | 90099-14070 | 04  |     |       |      | ID17     |
| S |   | 5          | VALVE SUB-ASSY, IN | 090140-2551 | 22104-5C350 | 04  |     |       |      |          |
| S |   | 6          | ELEMENT SUB-ASSY,  | 090150-5821 | 22105-5C350 | 04  |     |       | 0004 |          |
| S |   | 6          | ELEMENT SUB-ASSY,  | 090150-6480 | 22105-5C351 | 04  | D   | 0005  |      |          |
|   |   | 7          | SLEEVE SUB-ASSY, C | 090160-0150 | 22142-5C350 | 04  |     |       |      |          |
|   |   | 8          | RACK, CONTROL      | 090212-0930 | 22114-5C350 | 01  |     |       |      |          |
|   |   | 9          | SEAT, SPRING, UPR  | 090163-0160 | 22143-5C350 | 04  |     |       |      |          |
|   |   | 10         | SPRING, PUMP PLUNG | 090164-0250 | 22144-5C350 | 04  |     |       |      |          |
| S |   | 11         | SEAT, SPRING, LWR  | 090165-0150 | 22145-5C350 | 04  |     |       |      |          |
| S |   | 12         | TAPPET SUB-ASSY,IN | 090170-0320 | 22106-5C350 | 04  |     |       |      |          |
|   |   | 13         | SHIM, ELEMENT HOLD | 090438-0401 | 22182-5C350 | 8C  |     |       |      | T1.8     |
|   |   | 13         | SHIM, ELEMENT HOLD | 090438-0411 |             | 8C  |     |       |      | T1.85    |
|   |   | 13         | SHIM, ELEMENT HOLD | 090438-0421 | 22183-5C350 | 8C  |     |       |      | T1.9     |
|   |   | 13         | SHIM, ELEMENT HOLD | 090438-0431 |             | 8C  |     |       |      | T1.95    |
|   |   | 13         | SHIM, ELEMENT HOLD | 090438-0441 | 22184-5C350 | 8C  |     |       |      | T2.0     |
|   |   | 13         | SHIM, ELEMENT HOLD | 090438-0451 |             | 8C  |     |       |      | T2.05    |
|   |   | 13         | SHIM, ELEMENT HOLD | 090438-0461 | 22185-5C350 | 8C  |     |       |      | T2.1     |
|   |   | 13         | SHIM, ELEMENT HOLD | 090438-0471 |             | 8C  |     |       |      | T2.15    |
|   |   | 13         | SHIM, ELEMENT HOLD | 090438-0481 | 22186-5C350 | 8C  |     |       |      | T2.2     |
|   |   | 13         | SHIM, ELEMENT HOLD | 090438-0491 | 22187-5C350 | 8C  |     |       |      | T2.25    |
|   |   | 13         | SHIM, ELEMENT HOLD | 090438-0501 | 22188-5C350 | 8C  |     |       |      | T2.3     |
|   |   | 13         | SHIM, ELEMENT HOLD | 090438-0511 |             | 8C  |     |       |      | T2.35    |
|   |   | 13         | SHIM, ELEMENT HOLD | 090438-0521 | 22189-5C350 | 8C  |     |       |      | T2.4     |
|   |   | 13         | SHIM, ELEMENT HOLD | 090438-1001 |             | 8C  |     |       |      | T2.45    |
|   |   | 14         | NUT, HEXAGON       | 90196-08651 | 94110-50800 | 08  |     |       |      |          |
|   |   | 15         | WASHER, PLATE, SK  | 949013-5880 | 90099-01585 | 08  |     |       |      | T1.6     |
|   |   | 16         | WASHER, SPRING     | 90258-08001 | 94511-00800 | 08  |     |       |      | FOR M8   |
| S |   | 17         | GASKET, BEARING CO | 090206-0240 | 22195-5C350 | 01  |     |       |      |          |
|   |   | 18         | O-RING             | 090139-0020 | 22193-5C350 | 12  |     |       | 0004 | ID24.2T2 |
|   |   | 18         | O-RING             | 090139-0340 | 22193-5C351 | 08  | D   | 0005  |      | ID24.3T3 |
|   |   | 19         | WASHER, COPPER PLA | 949018-1730 | 90099-01584 | 04  |     |       |      | T0.5     |
|   |   | 20         | CAMSHAFT, INJECTIO | 090191-1760 | 22146-5C350 | 01  |     |       |      |          |
| S |   | 21         | BEARING, ROLLER    | 949101-0140 | 90099-10218 | 01  |     |       |      |          |
|   |   | 22         | RING, CAMSHAFT ADJ | 090193-0050 | 22147-78030 | 01  |     |       |      |          |
|   |   | 23         | PLATE, CAMSHAFT SH | 090194-0070 | 22166-78032 | 3C  |     |       |      | T0.1     |
|   |   | 23         | PLATE, CAMSHAFT SH | 090194-0080 | 22166-78033 | 3C  |     |       |      | T0.16    |
|   |   | 23         | PLATE, CAMSHAFT SH | 090194-0090 | 22166-78034 | 3C  |     |       |      | T0.3     |
|   |   | 23         | PLATE, CAMSHAFT SH | 090194-0100 | 22166-78035 | 3C  |     |       |      | T0.5     |
|   |   | 23         | PLATE, CAMSHAFT SH | 090194-0340 | 22166-78142 | 3C  |     |       |      | T0.12    |
|   |   | 23         | PLATE, CAMSHAFT SH | 090194-0350 | 22166-78143 | 3C  |     |       |      | T0.14    |

# Parts List

Compo. P/N: 190100-1001

Assy P/N: 092000-1800

| S | M | Illust.No. | Part Name          | DENSO P/N   | Manu. P/N   | QTY | I/C | Start | End | Remarks    |
|---|---|------------|--------------------|-------------|-------------|-----|-----|-------|-----|------------|
|   |   | 23         | PLATE, CAMSHAFT SH | 090194-0360 | 22166-78144 | 3C  |     |       |     | T0.18      |
|   |   | 23         | PLATE, CAMSHAFT SH | 090194-0410 |             | 3C  |     |       |     | T0.03      |
| S |   | 25         | SEAL, OIL          | 949150-2820 | 90099-15038 | 01  |     |       |     |            |
|   |   | 26         | COVER, BEARING     | 090201-0800 | 22111-5C350 | 01  |     |       |     |            |
|   |   | 27         | BOLT, W/WASHER     | 91418-06201 | 90091-20608 | 04  |     |       |     | M6,L20     |
|   |   | 28         | RETAINER, BEARING  | 090433-0020 | 22147-5C360 | 01  |     |       |     |            |
|   |   | 30         | SCREW, AIR BLEEDER | 090244-0160 | 22117-5C350 | 02  |     |       |     |            |
|   |   | 31         | WASHER, DRAIN SCRE | 090248-0010 | 22378-76010 | 02  |     |       |     |            |
|   |   | 32         | SCREW, RACK GUIDE  | 090215-0060 | 22115-78140 | 01  |     |       |     |            |
|   |   | 33         | PLUG, SCREW        | 090317-0140 | 22157-5C350 | 01  |     |       |     |            |
| S |   | 34         | BEARING, ROLLER    | 949101-0130 | 90099-10217 | 01  |     |       |     |            |
|   |   | 35         | RING, CAMSHAFT ADJ | 090193-0060 | 22147-5C350 | 01  |     |       |     |            |
|   |   | 36         | WASHER, FUEL PIPE  | 090222-0070 | 94712-77121 | 04  |     |       |     | T1.2       |
|   |   | 38         | SCREW, HOLLOW      | 949180-0310 | 90099-18010 | 01  |     |       |     | M14,L10    |
|   |   | 39         | PLATE, CAMSHAFT SH | 090194-0300 | 22161-5C350 | 3C  |     |       |     | T0.1       |
|   |   | 39         | PLATE, CAMSHAFT SH | 090194-0310 | 22164-5C350 | 3C  |     |       |     | T0.16      |
|   |   | 39         | PLATE, CAMSHAFT SH | 090194-0320 |             | 3C  |     |       |     | T0.3       |
|   |   | 39         | PLATE, CAMSHAFT SH | 090194-0330 | 22166-5C350 | 3C  |     |       |     | T0.5       |
|   |   | 39         | PLATE, CAMSHAFT SH | 090194-0370 | 22162-5C350 | 3C  |     |       |     | T0.12      |
|   |   | 39         | PLATE, CAMSHAFT SH | 090194-0380 | 22163-5C350 | 3C  |     |       |     | T0.14      |
|   |   | 39         | PLATE, CAMSHAFT SH | 090194-0390 | 22165-5C350 | 3C  |     |       |     | T0.18      |
|   |   | 39         | PLATE, CAMSHAFT SH | 090194-0420 |             | 3C  |     |       |     | T0.03      |
|   |   | 40         | BUSHING, CONTROL R | 090114-0110 | 22673-5C350 | 02  |     |       |     |            |
|   |   | 41         | WASHER, INJECTION  | 090251-0010 | 22124-77020 | 02  |     |       |     |            |
|   |   | 43         | SCREW, HOLLOW      | 949180-0060 | 22196-46030 | 01  |     |       |     |            |
|   |   | 44         | BUSHING, CONTROL R | 090367-0040 | 22115-5C350 | 01  |     |       |     |            |
|   |   | 46         | O-RING             | 949140-0380 | 90099-14015 | 01  |     |       |     | ID32.0     |
|   |   | 47         | WASHER, SPRING     | 90258-06001 | 94511-00600 | 03  |     |       |     | FOR M6     |
|   |   | 48         | NUT, HEXAGON       | 90160-06051 | 90092-10101 | 03  |     |       |     | M6         |
|   |   | 53         | WASHER, COPPER PLA | 949018-0350 | 90032-01106 | 01  |     |       |     | T1,FOR M16 |
|   |   | 58         | VALVE ASSY, OVERFL | 090310-0210 | 22160-5C350 | 01  |     |       |     | 2.6K       |
|   |   | 59         | STOPPER, DELIVERY  | 090133-0390 | 22194-5C350 | 04  |     |       |     |            |
|   |   | 61         | NIPPLE SUB-ASSY, S | 092218-0411 | 22197-5C350 | 01  |     |       |     |            |

# INJECTION PUMP TEST SPECIFICATIONS

092000-1800

|                       |   |                      |        |
|-----------------------|---|----------------------|--------|
| <b>INJECTION PUMP</b> | 092000-180#<br>(ND-PES4NB110C320RND180) | <b>MANU-FACTURER</b> | TOYOTA |
| <b>GOVERNOR</b>       | 091300-569# (R801H)                     | <b>ENGINE TYPE</b>   | 15B-FT |
| <b>TIMER</b>          | 091800-376# (SB0)                       | <b>VEHICLE MODEL</b> | DYNA   |

## 1. INJECTION TIMING

|                       |                                    |                           |                    |
|-----------------------|------------------------------------|---------------------------|--------------------|
| 1) Rotation           | : Clockwise viewed from drive side | 4) Pre-stroke             | : 3.70 – 3.80 mm   |
| 2) Injection Order    | : 1 – 3 – 4 – 2                    | 5) Tappet Clearance       | : More than 0.2 mm |
| 3) Injection Interval | : 90° ± 30'                        | 6) Locked Timing Location | : —                |

## 2. ADJUSTMENT OF DELIVERY QUANTITY

Test Conditions

|                            |                                 |                       |  |
|----------------------------|---------------------------------|-----------------------|--|
| 1) Nozzle                  | : 093400 – 0540<br>(DN12SD12A)  | 4) Feed Pressure      | : 2.0 kgf/cm <sup>2</sup>                            |
| 2) Nozzle Opening Pressure | : 175 – 180 kgf/cm <sup>2</sup> | 5) High Pressure Pipe | : $\varnothing 2 \times \varnothing 6 \times 600$ mm |
| 3) Test Oil                | : SAE J967 (ISO4113)            | 6) Fuel Temperature   | : 40 – 45 °C (104 – 113 °F)                          |

| Pump Speed (rpm) | Rack Travel (mm) | Number of Strokes | Delivery Quantity (cc/cyl.) | Max. Spread in Delivery (cc) | Remarks |
|------------------|------------------|-------------------|-----------------------------|------------------------------|---------|
| 1500             | 13.10            | 200               | 27.9 – 28.7                 | 1.20                         |         |
| 800              | 11.25            | 200               | 22.3 – 23.1                 | 1.20                         |         |
| 350              | 8.70             | 500               | 3.0 – 5.0                   | 1.25                         |         |

Overflow valve opening : 2.6 kgf/cm<sup>2</sup>

## 3. ADJUSTMENT OF GOVERNOR...Refer to the right side of this sheet.

## 4. ADJUSTMENT OF PUMP WITH GOVERNOR OPERATION

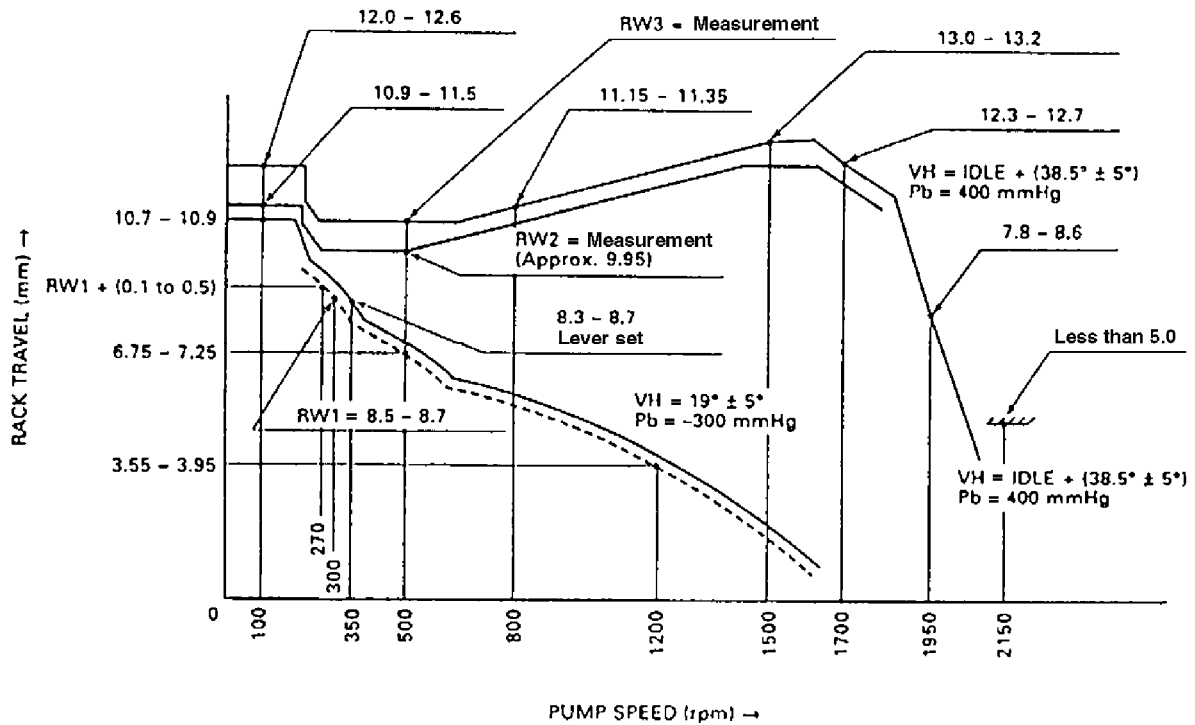
| Lever Position (deg) | Pump Speed (rpm) | Number of Strokes | Delivery Quantity (cc/cyl.) | Remarks                                       |
|----------------------|------------------|-------------------|-----------------------------|---|
| FULL                 | 1500             | 1000              | 139.5 – 143.5               | Pb = 400 mmHg<br>Pb = 400 mmHg<br>Pb = 0 mmHg |
|                      | 800              | 1000              | 111.5 – 115.5               |   |
|                      | 100              | 1000              | RW = 10.9 – 11.5            |   |
| IDLE                 | 350              | 1000              | 8.3 – 8.7                   | Pb = 0 mmHg<br>Lever set                      |

## 5. ADJUSTMENT OF TIMER

N.A. : Not Applicable

|                     |            |  |  |  |  |
|---------------------|------------|--|--|--|--|
| Pump Speed (rpm)    | 900 – 1500 |  |  |  |  |
| Advance Angle (deg) | 4.0        |  |  |  |  |

Control Speed Range : 350 – 1500 rpm



6. ADJUSTMENT OF BOOST COMPENSATOR (Full lever position)

Positive pressure must drop from 1000 mmHg to 980 mmHg in more than 10 seconds.

| Pump Speed (rpm) | Boost Pressure (mmHg) | RW (mm)           | Delivery Quantity (cc/200st) |
|------------------|-----------------------|-------------------|------------------------------|
| 100              | 0                     | 10.9 – 11.5       | —                            |
| 500              | 0                     | RW2 (Measurement) | 11.0 – 11.8                  |
| 500              | 140                   | RW2               | —                            |
| 500              | 190                   | RW2 + (0.1 – 0.3) | —                            |
| 500              | 350                   | RW3               | —                            |

NOTE:

- (1) Adjusting Lever Angle  
Setting position 0° to be at vertical position.
- (2) Stop Actuator Operation Check;  
The rack travel should be 5.0 mm or less and the delivery quantity should be 0 when the adjusting lever is at the full position with the pump speed at 1500 rpm. and apply 570 – 600 mmHg of vacuum to the stop actuator.
- (3) Temporary Adjustment of Stop Cam  
L<sub>1</sub> = 23.5 mm L<sub>2</sub> = 23.5 mm L<sub>3</sub> = 32.5 mm

# INJECTION PUMP TEST SPECIFICATIONS

196000-0030

|   |   |                  |                                  |                                     |                        |                         |                         |      |
|---|---|------------------|----------------------------------|-------------------------------------|------------------------|-------------------------|-------------------------|------|
| MANUFACTURER  | TOYOTA  | INJECTION PUMP   |                                  | <b>196000-003#</b>                  |                        |                         |                         |      |
| ENGINE TYPE   | 15B-F   |                  |                                  | VE4/12F1675RND003                   |                        |                         |                         |      |
| VEHICLE MODEL   | DINA  | ROTATION         | Clockwise viewed from drive side | GOVERNOR TYPE                       | All speed              |                         |                         |      |
| RATED VOLTAGE   | 24V   | INJECTION ORDER  | A - B - C - D                    | INJECTION INTERVAL                  | 90° ± 30'              |                         |                         |      |
| Dimension KF (mm)   | 7.10 ± 0.10                                   |                  | Dimension MS (mm)                | 0.25 ± 0.10                         |                        |                         |                         |      |
| Dimension K (mm)  | 3.50 ± 0.10                                   |                  | Dimension PS (mm)                | —                                   |                        |                         |                         |      |
| <b>1. TEST CONDITIONS</b>   |   |                  |                                  |                                     |                        |                         |                         |      |
| Nozzle  | 093400-0540 (DN12SD12A)                       |                  | Feed Pressure                    | 19.6 kPa (0.2 kgf/cm <sup>2</sup> ) |                        |                         |                         |      |
| Nozzle Opening Pressure   | 14.7 ± 0.5 MPa (150 ± 5 kgf/cm <sup>2</sup> ) |                  | High Pressure Pipe               | Ø2 × Ø6 × 840 mm                    |                        |                         |                         |      |
| Test Oil  | SAE J967 (ISO4113)                            |                  | Fuel Temperature                 | 40 - 45 °C (104 - 113°F)            |                        |                         |                         |      |
| NOTE : Apply 14 volts DC across the fuel cut solenoid during adjustment.                            |   |                  |                                  |                                     |                        |                         |                         |      |
| <b>2. PRE-ADJUSTMENT</b> <span style="float: right;">Applying 0 V to T.C.V.</span>                  |   |                  |                                  |                                     |                        |                         |                         |      |
|   | Lever Position (deg)                          | Pump Speed (rpm) | Boost Pressure                   |                                     | Fuel Delivery          |                         | Max. Spread in Delivery |      |
|   |   |                  | (kPa)                            | (mmHg)                              | (mm <sup>3</sup> /st)  | (cc/200st)              | (mm <sup>3</sup> )      | (cc) |
| Full Load   | 26 ± 5°                                       | 1000             | —                                | —                                   | 89.0 ± 1.3             | 17.8 ± 0.3              | 3.5                     | 0.7  |
| High Speed  | (Full position)                               | 2000             | —                                | —                                   | 18.0 ± 5.0             | 3.6 ± 1.0               | —                       | —    |
| <b>3. ADJUSTMENT OF INTERNAL PRESSURE</b> <span style="float: right;">Applying 0 V to T.C.V.</span> |   |                  |                                  |                                     |                        |                         |                         |      |
| Lever Position  | Pump Speed (rpm)                              | Boost Pressure   |                                  | Internal Pressure                   |                        | Remarks                 |                         |      |
|   |   | (kPa)            | (mmHg)                           | (kPa)                               | (kgf/cm <sup>2</sup> ) |                         |                         |      |
| Full  | 500   | —                | —                                | 313.5 ± 29.5                        | 3.2 ± 0.3              | By the regulating valve |                         |      |
|   | 1500  | —                | —                                | 666.5 ± 29.5                        | 6.8 ± 0.3              |                         |                         |      |
| <b>4. OVERFLOW QUANTITY CHECK</b> <span style="float: right;">Applying 0 V to T.C.V.</span>         |   |                  |                                  |                                     |                        |                         |                         |      |
| Lever Position  | Pump Speed (rpm)                              | Boost Pressure   |                                  | Overflow Quantity                   |                        | Remarks                 |                         |      |
|   |   | (kPa)            | (mmHg)                           | (L/h)                               | (cc/1000st)            |                         |                         |      |
| Full  | 1500  | —                | —                                | 36 - 60                             | 370 - 630              |                         |                         |      |
| NOTE : The overflow valve belonging to the pump should be used checking.                            |   |                  |                                  |                                     |                        |                         |                         |      |
| <b>5. ADJUSTMENT OF TIMER</b> <span style="float: right;">Applying 0 V to T.C.V.</span>             |   |                  |                                  |                                     |                        |                         |                         |      |
| Lever Position  | Pump Speed (rpm)                              | Boost Pressure   |                                  | Piston Travel (mm)                  | Remarks                |                         |                         |      |
|   |   | (kPa)            | (mmHg)                           |                                     |                        |                         |                         |      |
| Full  | 800   | —                | —                                | 1.70 ± 0.40                         |                        |                         |                         |      |
|   | 1200  | —                | —                                | 4.50 ± 0.40                         |                        |                         |                         |      |
|   | 1500  | —                | —                                | 6.60 ± 0.40                         |                        |                         |                         |      |
|   | 2000  | —                | —                                | 7.20 ± 0.24                         |                        |                         |                         |      |
| NOTE : Hysteresis at each pump speed is less than 0.3 mm.   |   |                  |                                  |                                     |                        |                         |                         |      |

2004.06.03



**6. ADJUSTMENT OF BOOST COMPENSATOR** — : Not Applicable

| Lever Position | Pump Speed (rpm) | Boost Pressure |        | Fuel Delivery         |            | Max. Spread in Delivery |      | Remarks |
|----------------|------------------|----------------|--------|-----------------------|------------|-------------------------|------|---------|
|                |                  | (kPa)          | (mmHg) | (mm <sup>3</sup> /st) | (cc/200st) | (mm <sup>3</sup> )      | (cc) |         |
| —              | —                | —              | —      | —                     | —          | —                       | —    | —       |

**7. ADJUSTMENT OF FUEL DELIVERY** Applying 0 V to T.C.V. , Lower the power control lever on the distributor head side.

| Lever Position | Pump Speed (rpm) | Boost Pressure |            | Fuel Delivery         |               | Max. Spread in Delivery |                         | Remarks                     |
|----------------|------------------|----------------|------------|-----------------------|---------------|-------------------------|-------------------------|-----------------------------|
|                |                  | (kPa)          | (mmHg)     | (mm <sup>3</sup> /st) | (cc/200st)    | (mm <sup>3</sup> )      | (cc)                    |                             |
| Full           | 1000             | —              | —          | 89.0 ± 1.3            | 17.8 ± 0.3    | 3.0                     | 0.6                     | By full load setting screw  |
|                | 2000             | —              | —          | 18.0 ± 5.0            | 3.6 ± 1.0     | —                       | —                       | By max. speed setting screw |
|                | 1750             | —              | —          | 80.5 ± 8.0            | 16.1 ± 1.6    | —                       | —                       |                             |
|                | 2200             | —              | —          | Less than 2.0         | Less than 0.4 | —                       | —                       |                             |
|                | 100              | —              | —          | 62.0 ± 12.0           | 12.4 ± 2.4    | 7.0                     | 1.4                     | By governor sleeve plug     |
|                | 500              | —              | —          | 55.5 ± 2.5            | 11.1 ± 0.5    | 3.0                     | 0.6                     |                             |
|                | 700              | —              | —          | 75.0 ± 3.0            | 15.0 ± 0.6    | 3.0                     | 0.6                     |                             |
|                | 900              | —              | —          | 86.0 ± 3.0            | 17.2 ± 0.6    | 3.0                     | 0.6                     |                             |
| 1300           | —                | —              | 90.5 ± 2.5 | 18.1 ± 0.5            | 3.0           | 0.6                     |                         |                             |
| 1600           | —                | —              | 90.5 ± 2.5 | 18.1 ± 0.5            | 12.0          | 2.4                     | With reverse adaptation |                             |

**8. SETTING OF LOAD SENSING TIMER**

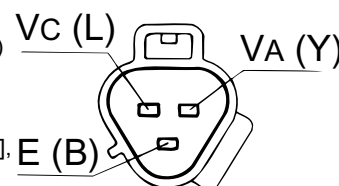
| Lever Position        | Pump Speed (rpm)   | Boost Pressure |        | Fuel Delivery         |            | Remarks           |
|-----------------------|--|----------------|--------|-----------------------|------------|-------------------|
|                       |  | (kPa)          | (mmHg) | (mm <sup>3</sup> /st) | (cc/200st) |                   |
| Start of Load Sensing | —  | —              | —      | —                     | —          | By governor shaft |
| End of Pressure Drop  | —  | —              | —      | —                     | —          | Check             |
| Repeat Advance Angle  | —  | —              | —      | —                     | —          | —                 |
| Check Points          | 1. — : — mm (Pump speed rpm)<br>2. — : — mm<br>3. Dimension of Governor Shaft : L = 1.25 ± 0.75 mm |                |        |                       |            |                   |

| 9. SETTING OF ADJUSTING LEVER AT LOW SPEED           |                  |                      |                       |                       |  |   | Applying 0 V to T.C.V.                        |  |
|--|------------------|----------------------|-----------------------|-----------------------|--|---|---|--|
| Lever Position (deg)                                 | Pump Speed (rpm) | Boost Pressure (kPa) | Fuel Delivery         |                       | Max. Spread in Delivery                              |   | Remarks                                       |  |
|  |                  |                      | (mm <sup>3</sup> /st) | (cc/500st)            | (mm <sup>3</sup> )                                   | (cc)  |   |  |
| - 17 ± 5°<br>(Idle position)                         | 360              | —                    | 17.0 ± 1.0 = A        | 8.5 ± 0.5 = A         | —  | —   | D/P adjustment (unscrewed)                    |  |
|  | 360              | —                    | (A + 1.5) ± 0.5       | (A + 0.8) ± 0.3       | —  | —   | D/P adjustment (screw tightened)              |  |
|  | 360              | —                    | 6.0 ± 3.0             | 3.0 ± 1.5             | 2.5  | 1.3   | Lever setting                                 |  |
| 10. END OF FUEL QUANTITY INCREASE ADJUSTMENT         |                  |                      |                       |                       |  |   | Applying 0 V to T.C.V. , End of pressure drop |  |
| Pump Speed (rpm)                                     | Boost Pressure   |                      | Fuel Delivery         |                       | Remarks  |   |   |  |
|  | (kPa)            | (mmHg)               | (mm <sup>3</sup> /st) | (cc/500st)            |  |   |   |  |
| 475  | —                | —                    | 55.5 ± 3.0            | 27.8 ± 1.5            | Lever setting  |   |   |  |
| 385  | —                | —                    | 72.0 ± 6.0            | 36.0 ± 3.0            |  |   |   |  |
| 11. CHARACTERISTIC OF A.C.S.D.                       |                  |                      |                       |                       |  |   | Applying 0 V to T.C.V.                        |  |
| Lever Position                                       | Pump Speed (rpm) | Boost Pressure       |                       | Measuring Value       | Remarks  |   |   |  |
|  |                  | (kPa)                | (mmHg)                |                       |  |   |   |  |
| Idle   | 360              | —                    | —                     | 0.1 ± 0.2 mm          | Piston Travel (Absolute)                             |   |   |  |
|  | 360              | —                    | —                     | 0 mm <sup>3</sup> /st | Idle-up Quantity (0 cc/500st) (Additional from No.9) |   |   |  |
| Fuel temperature : 39 - 41°C                         |                  |                      |                       |                       |  |   |   |  |
| 12. ADJUSTMENT OF T.C.V.                             |                  |                      |                       |                       |  |   |   |  |
| Lever Position                                       | Pump Speed (rpm) | Boost Pressure       |                       | Piston Travel (mm)    | Remarks  |   |   |  |
|  |                  | (kPa)                | (mmHg)                |                       |  |   |   |  |
| Full   | 1200             | —                    | —                     | 2.1 ± 0.2             | With applying 12 ± 0.1 (V)                           |   |   |  |
| 13. SETTING OF DIAPHRAGM FOR HEATER & POWER STEERING |                  |                      |                       |                       |  |   | Applying 0 V to T.C.V.                        |  |
| Pump Speed (rpm)                                     | Vacuum Pressure  |                      | Fuel Delivery         |                       | Remarks  |   |   |  |
|  | (kPa)            | (mmHg)               | (mm <sup>3</sup> /st) | (cc/500st)            |  |   |   |  |
| 400  | - 46.7           | - 350                | 6.0 ± 1.0             | 3.0 ± 0.5             | PS Idle up (No. 1 Actuator), Make ACSD free          |   |   |  |
| 400  | - 46.7           | - 350                | 14.0 ± 1.0            | 7.0 ± 0.5             | PS Idle up (No. 2 Actuator), Make ACSD free          |   |   |  |
| 14. ADJUSTMENT OF POWER CONTROL                      |                  |                      |                       |                       |  |   | Applying 0 V to T.C.V.                        |  |
| Lever Position                                       | Pump Speed (rpm) | Boost Pressure       |                       | Fuel Delivery         |  | Remarks   |   |  |
|  |                  | (kPa)                | (mmHg)                | (mm <sup>3</sup> /st) | (cc/200st)   |   |   |  |
| Full   | 700              | —                    | —                     | 62.5 ± 0.5            | 12.5 ± 0.1   | Contact the power control lever on the stopper. |   |  |

| 15. ADJUSTMENT OF THROTTLE POSITION SENSOR |                     |                |        |                       |                | Applying $5 \pm 0.01$ V to sensor. Applying 0 V to T.C.V. |             |
|--|---------------------|----------------|--------|-----------------------|----------------|---|-------------|
| Lever Position                             | Pump Speed<br>(rpm) | Boost Pressure |        | Fuel Delivery         |                | Sensor Output Voltage (V)                                 | Remarks     |
|  |                     | (kPa)          | (mmHg) | (mm <sup>3</sup> /st) | (cc/500st)     |   |             |
| —  | 1000                | —              | —      | $73.0 \pm 1.0$        | $36.5 \pm 0.5$ | $2.002 \pm 0.024$   | Set point   |
| Full                                       | —                   | —              | —      | —                     | —              | $0.96 \pm 0.5$  | Check point |
| Idle                                       | —                   | —              | —      | —                     | —              | $3.65 \pm 0.5$  | Check point |

#### 16. FINAL CHECK AFTER ADJUSTMENT

- 1 . Lever position at idle is  $-17 \pm 5^\circ$  and  $26.5 \pm 5^\circ$  at full.
- 2 . Resistance of pick-up tachometer must be  $810 \pm 160$  ohms.
- 3 . After adjustment has been completed, delivery quantity must be  $5.0 \text{ mm}^3/\text{st}$  ( $1.0 \text{ cc}/200\text{st}$ ) when voltage at fuel cut solenoid is reduced to zero. (Pump Speed  $N_p = 100 \text{ rpm}$ )  
Pull PCS lever toward distributor head side not to operate while fuel delivery adjustment.  
Precautions on the installation and adjustment of the power control actuator (fig. 2)
  - (1) First, install an actuator adjustment washer each on the nut side and the actuator side.
  - (2) Make sure that there is 3mm minimum clearance between lever [1] and adjustment screw [2], with the rod of the power control actuator in the most extended state.  
If the clearance is less than 3mm, place 2 adjustment washers on the nut side, and verify that the clearance indicated above is 3mm minimum.  
[If the clearance indicated above is less than 3mm with 2 adjustment washers placed on the nut side, replace lever [1] and perform the injection adjustment again.]
  - (3) When the actuator is activated (with  $-450 \text{ mmHg}$  applied), the clearance between lever [1] and adjustment screw [2] must be "0".
- 4 . Precautions on the installation and adjustment of the power control limit switch (fig. 3)
  - (1) Screw adjustment position  
With the rod of the power control actuator in the most extended state, allows screw [3] to contact switch [4] in order to verify the position in which the current flows through the switch. From that position, turn screw [3] an additional turn, and lock it in place.
  - (2) Switch clearance check  
In the state indicated above, depress only switch [4], and verify that there is a clearance to screw [3].
- 5 . Dimension check during injection volume adjustment (fig. 2)  
Make sure that the protruded length L of stopper [2] is between 6.5 and 10mm. If the protruded length deviates from the above, replace lever [1].  
[If the protruded length L deviates from the above, the clearance between [1] and [2] when the actuator is assembled becomes less than 3mm. Therefore, L must be checked during the adjustment of the injection volume.]
- 6 . PCS Fitting Dimensions  
When the diaphragm is open to the atmosphere, the interval between the lever and the stopper is 3.0 mm or more.



RPS Connector

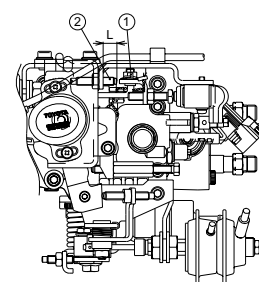


fig. 2

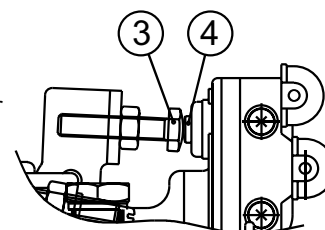


fig. 3

# Assembly Dimension Search Result

Assy P/N: 192600-1040

Manu P/N: 22540-5C440

**A: 14.5**

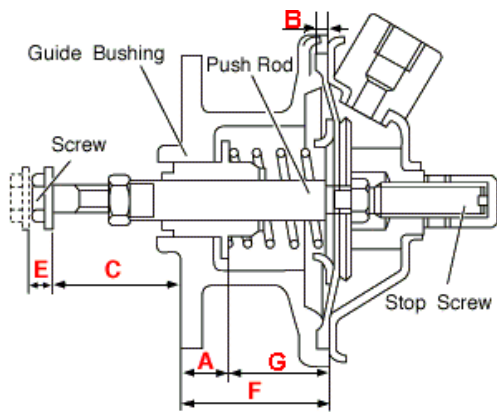
**B: 0.5**

**C: 36.7-37.3**

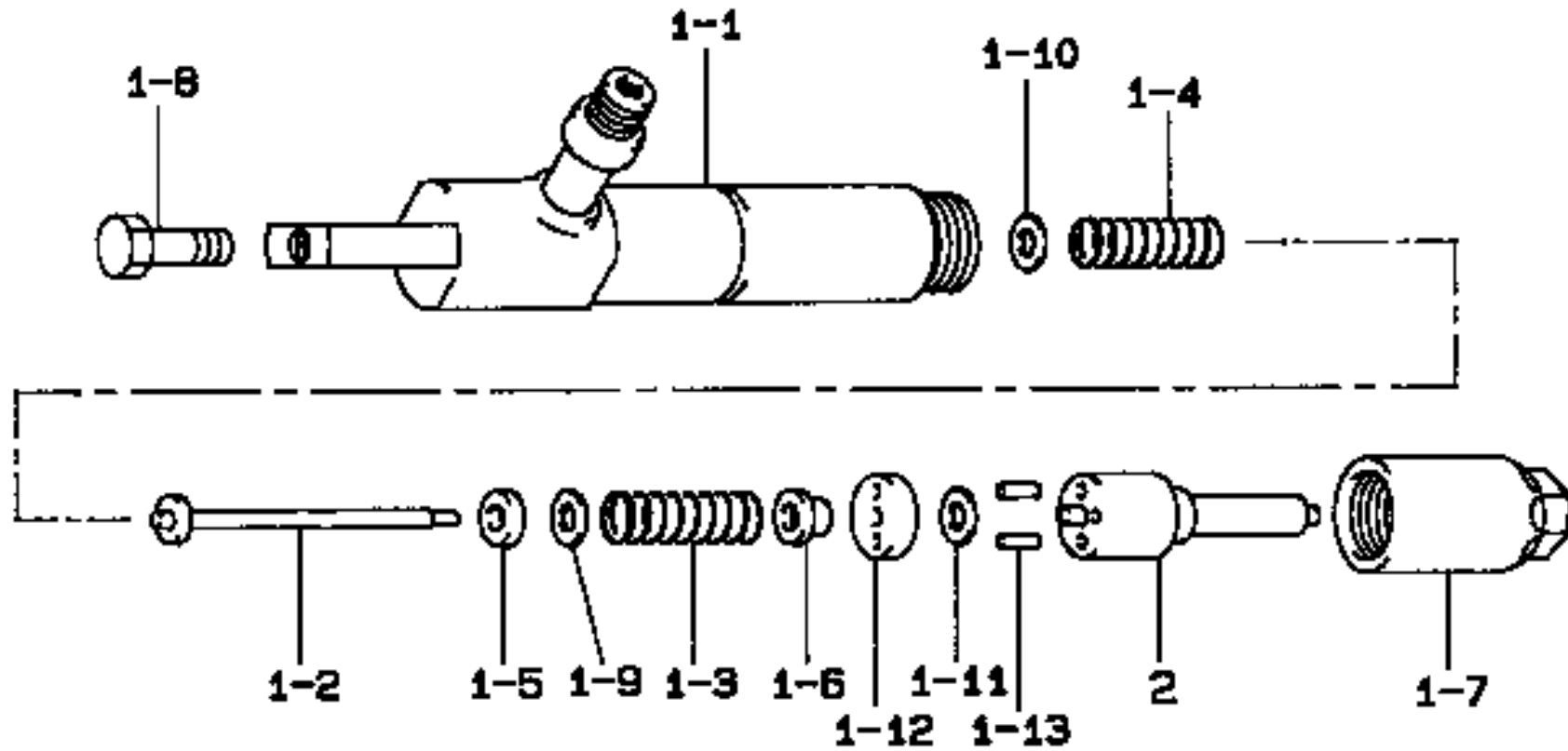
**E: 2.0-3.0**

**F:**

**G:**



Remarks



OP0513

# Parts List

Compo. P/N: 093500-6120

Assy P/N: 093500-6120

| S | M | Illust.No. | Part Name          | DENSO P/N   | Manu. P/N   | QTY | I/C | Start | End  | Remarks |
|---|---|------------|--------------------|-------------|-------------|-----|-----|-------|------|---------|
|   |   | 0          | HOLDER & NOZZLE SE | 093500-6120 | 23600-58070 | 01  |     |       |      |         |
|   |   | 1          | HOLDER ASSY, NOZZL | 093100-6120 | 23610-58070 | 01  |     |       |      |         |
|   |   | 1-1        | BODY SUB-ASSY, NOZ | 093110-6120 | 23626-58070 | 01  |     |       |      |         |
| S |   | 1-2        | PIN, NOZZLE HOLDER | 093121-0600 | 23619-17070 | 01  |     |       |      |         |
| S |   | 1-3        | SPRING, NOZZLE HOL | 093127-0410 | 23618-58030 | 01  |     |       |      |         |
| S |   | 1-4        | SPRING, NOZZLE HOL | 093127-0520 | 23618-17070 | 01  |     |       |      |         |
|   |   | 1-5        | SEAT, SPRING       | 093128-0110 | 23617-17070 | 01  |     |       |      | L3.0    |
|   |   | 1-6        | SEAT, SPRING       | 093128-0120 | 23617-17010 | 1C  |     |       | 9708 | L3.07   |
|   |   | 1-6        | SEAT, SPRING       | 093128-0130 | 23617-17011 | 1C  |     |       | 9708 | L3.08   |
|   |   | 1-6        | SEAT, SPRING       | 093128-0140 | 23617-17073 | 1C  |     |       | 9708 | L3.09   |
|   |   | 1-6        | SEAT, SPRING       | 093128-0150 | 23617-17012 | 1C  |     |       | 9708 | L3.10   |
|   |   | 1-6        | SEAT, SPRING       | 093128-0160 | 23617-17013 | 1C  |     |       | 9708 | L3.11   |
|   |   | 1-6        | SEAT, SPRING       | 093128-0170 | 23617-17076 | 1C  |     |       | 9708 | L3.12   |
|   |   | 1-6        | SEAT, SPRING       | 093128-0180 | 23617-17077 | 1C  |     |       | 9708 | L3.13   |
|   |   | 1-6        | SEAT, SPRING       | 093128-0190 | 23617-17078 | 1C  |     |       | 9708 | L3.14   |
|   |   | 1-6        | SEAT, SPRING       | 093128-0200 | 23617-17079 | 1C  |     |       | 9708 | L3.15   |
|   |   | 1-6        | SEAT, SPRING       | 093128-0210 | 23617-17014 | 1C  |     |       | 9708 | L3.16   |
|   |   | 1-6        | SEAT, SPRING       | 093128-0220 | 23617-17015 | 1C  |     |       | 9708 | L3.17   |
|   |   | 1-6        | SEAT, SPRING       | 093128-0230 | 23617-17071 | 1C  |     |       | 9708 | L3.18   |
|   |   | 1-6        | SEAT, SPRING       | 093128-0240 | 23617-17016 | 1C  |     |       | 9708 | L3.19   |
|   |   | 1-6        | SEAT, SPRING       | 093128-0250 | 23617-17017 | 1C  |     |       | 9708 | L3.20   |
|   |   | 1-6        | SEAT, SPRING       | 093128-0260 | 23617-17072 | 1C  |     |       | 9708 | L3.21   |
|   |   | 1-6        | SEAT, SPRING       | 093128-0270 | 23617-17018 | 1C  |     |       | 9708 | L3.22   |
|   |   | 1-6        | SEAT, SPRING       | 093128-0280 | 23617-17019 | 1C  |     |       | 9708 | L3.23   |
|   |   | 1-6        | SEAT, SPRING       | 093128-0290 | 23617-17074 | 1C  |     |       | 9708 | L3.24   |
|   |   | 1-6        | SEAT, SPRING       | 093128-0300 | 23617-17020 | 1C  |     |       | 9708 | L3.25   |
|   |   | 1-6        | SEAT, SPRING       | 093128-0310 | 23617-17021 | 1C  |     |       | 9708 | L3.26   |
|   |   | 1-6        | SEAT, SPRING       | 093128-0320 | 23617-17075 | 1C  |     |       | 9708 | L3.27   |
|   |   | 1-6        | SEAT, SPRING       | 093128-0330 | 23617-17022 | 1C  |     |       | 9708 | L3.28   |
|   |   | 1-6        | SEAT, SPRING       | 093128-0390 | 23617-17023 | 1C  | D   | 9709  |      | L2.590  |
|   |   | 1-6        | SEAT, SPRING       | 093128-0410 | 23617-17025 | 1C  | D   | 9709  |      | L2.600  |
|   |   | 1-6        | SEAT, SPRING       | 093128-0430 | 23617-17027 | 1C  | D   | 9709  |      | L2.610  |
|   |   | 1-6        | SEAT, SPRING       | 093128-0450 | 23617-17029 | 1C  | D   | 9709  |      | L2.620  |
|   |   | 1-6        | SEAT, SPRING       | 093128-0470 | 23617-17031 | 1C  | D   | 9709  |      | L2.630  |
|   |   | 1-6        | SEAT, SPRING       | 093128-0490 | 23617-17033 | 1C  | D   | 9709  |      | L2.640  |
|   |   | 1-6        | SEAT, SPRING       | 093128-0510 | 23617-17035 | 1C  | D   | 9709  |      | L2.650  |
|   |   | 1-6        | SEAT, SPRING       | 093128-0530 | 23617-17037 | 1C  | D   | 9709  |      | L2.660  |
|   |   | 1-6        | SEAT, SPRING       | 093128-0550 | 23617-17039 | 1C  | D   | 9709  |      | L2.670  |
|   |   | 1-6        | SEAT, SPRING       | 093128-0570 | 23617-17041 | 1C  | D   | 9709  |      | L2.680  |
|   |   | 1-6        | SEAT, SPRING       | 093128-0590 | 23617-17043 | 1C  | D   | 9709  |      | L2.690  |
|   |   | 1-6        | SEAT, SPRING       | 093128-0610 | 23617-17045 | 1C  | D   | 9709  |      | L2.700  |
|   |   | 1-6        | SEAT, SPRING       | 093128-0630 | 23617-17047 | 1C  | D   | 9709  |      | L2.710  |
|   |   | 1-6        | SEAT, SPRING       | 093128-0650 | 23617-17049 | 1C  | D   | 9709  |      | L2.720  |
|   |   | 1-6        | SEAT, SPRING       | 093128-0670 | 23617-17051 | 1C  | D   | 9709  |      | L2.730  |
|   |   | 1-6        | SEAT, SPRING       | 093128-0690 | 23617-17053 | 1C  | D   | 9709  |      | L2.740  |
|   |   | 1-6        | SEAT, SPRING       | 093128-0710 | 23617-17055 | 1C  | D   | 9709  |      | L2.750  |
|   |   | 1-6        | SEAT, SPRING       | 093128-0730 | 23617-17057 | 1C  | D   | 9709  |      | L2.760  |

# Parts List

Compo. P/N: 093500-6120

Assy P/N: 093500-6120

| S | M | Illust.No. | Part Name          | DENSO P/N   | Manu. P/N   | QTY | I/C | Start | End | Remarks |
|---|---|------------|--------------------|-------------|-------------|-----|-----|-------|-----|---------|
|   |   | 1-6        | SEAT, SPRING       | 093128-0750 | 23617-17059 | 1C  | D   | 9709  |     | L2.770  |
|   |   | 1-6        | SEAT, SPRING       | 093128-0770 | 23617-17061 | 1C  | D   | 9709  |     | L2.780  |
|   |   | 1-6        | SEAT, SPRING       | 093128-0790 | 23617-17063 | 1C  | D   | 9709  |     | L2.790  |
|   |   | 1-6        | SEAT, SPRING       | 093128-0810 | 23617-17065 | 1C  | D   | 9709  |     | L2.800  |
|   |   | 1-7        | NUT, NOZZLE RETAIN | 093164-1660 | 23624-17070 | 01  |     |       |     |         |
|   |   | 1-8        | SCREW, HOLLOW      | 093166-0070 | 23656-78030 | 01  |     |       |     |         |
|   |   | 1-9        | WASHER             | 093175-2180 | 23631-58010 | 1C  |     |       |     | T1.00   |
|   |   | 1-9        | WASHER             | 093175-2190 | 23631-58011 | 1C  |     |       |     | T1.05   |
|   |   | 1-9        | WASHER             | 093175-2200 | 23631-58012 | 1C  |     |       |     | T1.10   |
|   |   | 1-9        | WASHER             | 093175-2210 | 23631-58013 | 1C  |     |       |     | T1.15   |
|   |   | 1-9        | WASHER             | 093175-2220 | 23631-58014 | 1C  |     |       |     | T1.20   |
|   |   | 1-9        | WASHER             | 093175-2230 | 23631-58015 | 1C  |     |       |     | T1.25   |
|   |   | 1-9        | WASHER             | 093175-2240 | 23631-58016 | 1C  |     |       |     | T1.30   |
|   |   | 1-9        | WASHER             | 093175-2250 | 23631-58017 | 1C  |     |       |     | T1.35   |
|   |   | 1-9        | WASHER             | 093175-2260 | 23631-58018 | 1C  |     |       |     | T1.40   |
|   |   | 1-9        | WASHER             | 093175-2270 | 23631-58019 | 1C  |     |       |     | T1.45   |
|   |   | 1-9        | WASHER             | 093175-2280 | 23632-58010 | 1C  |     |       |     | T1.50   |
|   |   | 1-9        | WASHER             | 093175-2290 | 23632-58011 | 1C  |     |       |     | T1.55   |
|   |   | 1-9        | WASHER             | 093175-2300 | 23632-58012 | 1C  |     |       |     | T1.60   |
|   |   | 1-9        | WASHER             | 093175-2310 | 23632-58013 | 1C  |     |       |     | T1.65   |
|   |   | 1-9        | WASHER             | 093175-2320 | 23632-58014 | 1C  |     |       |     | T1.70   |
|   |   | 1-9        | WASHER             | 093175-2330 | 23632-58015 | 1C  |     |       |     | T1.75   |
|   |   | 1-9        | WASHER             | 093175-2340 | 23632-58016 | 1C  |     |       |     | T1.80   |
|   |   | 1-9        | WASHER             | 093175-2350 | 23631-17020 | 1C  |     |       |     | T1.85   |
|   |   | 1-9        | WASHER             | 093175-2360 | 23631-17070 | 1C  |     |       |     | T1.90   |
|   |   | 1-9        | WASHER             | 093175-2370 | 23631-17021 | 1C  |     |       |     | T1.95   |
|   |   | 1-9        | WASHER             | 093175-2380 | 23631-17022 | 1C  |     |       |     | T2.00   |
|   |   | 1-9        | WASHER             | 093175-2390 | 23631-17071 | 1C  |     |       |     | T2.05   |
|   |   | 1-9        | WASHER             | 093175-2400 | 23631-17023 | 1C  |     |       |     | T2.10   |
|   |   | 1-9        | WASHER             | 093175-2410 | 23631-17024 | 1C  |     |       |     | T2.15   |
|   |   | 1-9        | WASHER             | 093175-2420 | 23632-58017 | 1C  |     |       |     | T1.275  |
|   |   | 1-9        | WASHER             | 093175-2430 | 23632-58018 | 1C  |     |       |     | T1.325  |
|   |   | 1-9        | WASHER             | 093175-2440 | 23632-58019 | 1C  |     |       |     | T1.375  |
|   |   | 1-9        | WASHER             | 093175-2450 | 23633-58010 | 1C  |     |       |     | T1.425  |
|   |   | 1-9        | WASHER             | 093175-2460 | 23633-58011 | 1C  |     |       |     | T1.475  |
|   |   | 1-9        | WASHER             | 093175-2470 | 23631-17025 | 1C  |     |       |     | T1.525  |
|   |   | 1-9        | WASHER             | 093175-2480 | 23631-17072 | 1C  |     |       |     | T1.575  |
|   |   | 1-9        | WASHER             | 093175-2490 | 23631-17026 | 1C  |     |       |     | T1.625  |
|   |   | 1-9        | WASHER             | 093175-2500 | 23631-17027 | 1C  |     |       |     | T1.675  |
|   |   | 1-9        | WASHER             | 093175-2510 | 23631-17073 | 1C  |     |       |     | T1.725  |
|   |   | 1-9        | WASHER             | 093175-2520 | 23631-17028 | 1C  |     |       |     | T1.775  |
|   |   | 1-9        | WASHER             | 093175-2530 | 23633-58012 | 1C  |     |       |     | T0.95   |
|   |   | 1-9        | WASHER             | 093175-2560 | 23633-58013 | 1C  |     |       |     | T0.70   |
|   |   | 1-9        | WASHER             | 093175-2570 | 23633-58014 | 1C  |     |       |     | T0.75   |
|   |   | 1-9        | WASHER             | 093175-2580 | 23633-58015 | 1C  |     |       |     | T0.80   |
|   |   | 1-9        | WASHER             | 093175-2590 | 23633-58016 | 1C  |     |       |     | T0.85   |
|   |   | 1-9        | WASHER             | 093175-2600 | 23633-58017 | 1C  |     |       |     | T0.90   |

# Parts List

Compo. P/N: 093500-6120

Assy P/N: 093500-6120

| S | M | Illust.No. | Part Name | DENSO P/N   | Manu. P/N   | QTY | I/C | Start | End | Remarks |
|---|---|------------|-----------|-------------|-------------|-----|-----|-------|-----|---------|
|   |   | 1-9        | WASHER    | 093175-2610 | 23633-58018 | 1C  |     |       |     | T0.975  |
|   |   | 1-9        | WASHER    | 093175-2620 | 23633-58019 | 1C  |     |       |     | T1.025  |
|   |   | 1-9        | WASHER    | 093175-2630 | 23634-58010 | 1C  |     |       |     | T1.075  |
|   |   | 1-9        | WASHER    | 093175-2640 | 23634-58011 | 1C  |     |       |     | T1.125  |
|   |   | 1-9        | WASHER    | 093175-2650 | 23634-58012 | 1C  |     |       |     | T1.175  |
|   |   | 1-9        | WASHER    | 093175-2660 | 23634-58013 | 1C  |     |       |     | T1.225  |
|   |   | 1-10       | WASHER    | 093175-4070 | 23631-17029 | 1C  |     |       |     | T0.8    |
|   |   | 1-10       | WASHER    | 093175-4080 | 23631-17079 | 1C  |     |       |     | T0.825  |
|   |   | 1-10       | WASHER    | 093175-4090 | 23631-17040 | 1C  |     |       |     | T0.85   |
|   |   | 1-10       | WASHER    | 093175-4100 | 23631-17041 | 1C  |     |       |     | T0.875  |
|   |   | 1-10       | WASHER    | 093175-4110 | 23631-17030 | 1C  |     |       |     | T0.9    |
|   |   | 1-10       | WASHER    | 093175-4120 | 23631-17042 | 1C  |     |       |     | T0.925  |
|   |   | 1-10       | WASHER    | 093175-4130 | 23631-17043 | 1C  |     |       |     | T0.95   |
|   |   | 1-10       | WASHER    | 093175-4140 | 23631-17031 | 1C  |     |       |     | T0.975  |
|   |   | 1-10       | WASHER    | 093175-4150 | 23631-17044 | 1C  |     |       |     | T1.0    |
|   |   | 1-10       | WASHER    | 093175-4160 | 23631-17045 | 1C  |     |       |     | T1.025  |
|   |   | 1-10       | WASHER    | 093175-4170 | 23631-17032 | 1C  |     |       |     | T1.05   |
|   |   | 1-10       | WASHER    | 093175-4180 | 23631-17046 | 1C  |     |       |     | T1.075  |
|   |   | 1-10       | WASHER    | 093175-4190 | 23631-17047 | 1C  |     |       |     | T1.1    |
|   |   | 1-10       | WASHER    | 093175-4200 | 23631-17033 | 1C  |     |       |     | T1.125  |
|   |   | 1-10       | WASHER    | 093175-4210 | 23631-17048 | 1C  |     |       |     | T1.15   |
|   |   | 1-10       | WASHER    | 093175-4220 | 23631-17049 | 1C  |     |       |     | T1.175  |
|   |   | 1-10       | WASHER    | 093175-4230 | 23631-17034 | 1C  |     |       |     | T1.2    |
|   |   | 1-10       | WASHER    | 093175-4240 | 23631-17050 | 1C  |     |       |     | T1.225  |
|   |   | 1-10       | WASHER    | 093175-4250 | 23631-17051 | 1C  |     |       |     | T1.25   |
|   |   | 1-10       | WASHER    | 093175-4260 | 23631-17035 | 1C  |     |       |     | T1.275  |
|   |   | 1-10       | WASHER    | 093175-4270 | 23631-17052 | 1C  |     |       |     | T1.3    |
|   |   | 1-10       | WASHER    | 093175-4280 | 23631-17053 | 1C  |     |       |     | T1.325  |
|   |   | 1-10       | WASHER    | 093175-4290 | 23631-17036 | 1C  |     |       |     | T1.35   |
|   |   | 1-10       | WASHER    | 093175-4300 | 23631-17054 | 1C  |     |       |     | T1.375  |
|   |   | 1-10       | WASHER    | 093175-4310 | 23631-17055 | 1C  |     |       |     | T1.4    |
|   |   | 1-10       | WASHER    | 093175-4320 | 23631-17037 | 1C  |     |       |     | T1.425  |
|   |   | 1-10       | WASHER    | 093175-4330 | 23631-17056 | 1C  |     |       |     | T1.45   |
|   |   | 1-10       | WASHER    | 093175-4340 | 23631-17057 | 1C  |     |       |     | T1.475  |
|   |   | 1-10       | WASHER    | 093175-4350 | 23631-17038 | 1C  |     |       |     | T1.5    |
|   |   | 1-10       | WASHER    | 093175-4360 | 23631-17058 | 1C  |     |       |     | T1.525  |
|   |   | 1-10       | WASHER    | 093175-4370 | 23631-17059 | 1C  |     |       |     | T1.55   |
|   |   | 1-10       | WASHER    | 093175-4380 | 23631-17039 | 1C  |     |       |     | T1.575  |
|   |   | 1-10       | WASHER    | 093175-4390 | 23631-17068 | 1C  |     |       |     | T1.6    |
|   |   | 1-10       | WASHER    | 093175-4400 | 23631-17069 | 1C  |     |       |     | T1.625  |
|   |   | 1-10       | WASHER    | 093175-4410 | 23631-17060 | 1C  |     |       |     | T1.65   |
|   |   | 1-10       | WASHER    | 093175-4420 | 23632-17020 | 1C  |     |       |     | T1.675  |
|   |   | 1-10       | WASHER    | 093175-4430 | 23632-17021 | 1C  |     |       |     | T1.7    |
|   |   | 1-10       | WASHER    | 093175-4440 | 23631-17061 | 1C  |     |       |     | T1.725  |
|   |   | 1-10       | WASHER    | 093175-4450 | 23632-17022 | 1C  |     |       |     | T1.75   |
|   |   | 1-10       | WASHER    | 093175-4460 | 23632-17023 | 1C  |     |       |     | T1.775  |
|   |   | 1-10       | WASHER    | 093175-4470 | 23631-17062 | 1C  |     |       |     | T1.8    |



# Parts List

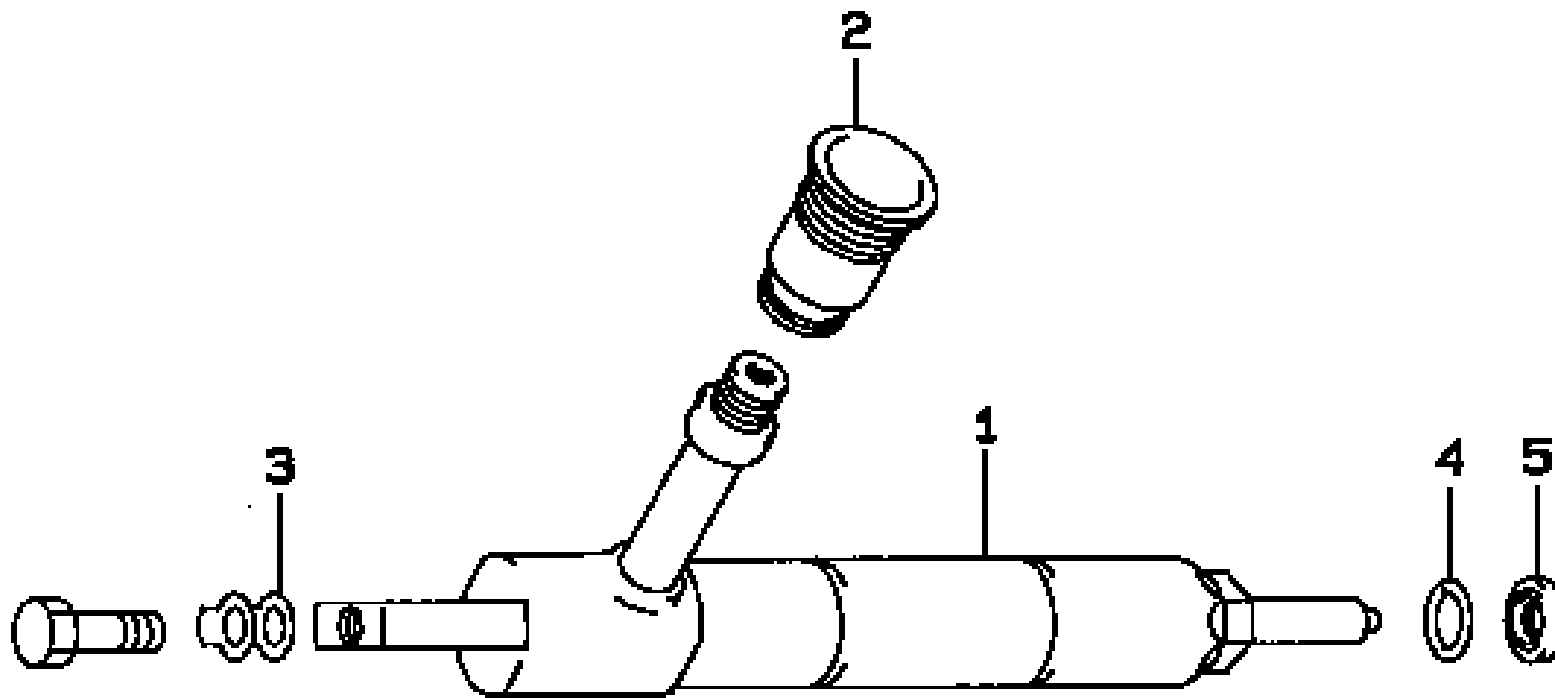
Compo. P/N: 093500-6120

Assy P/N: 093500-6120

| S | M | Illust.No. | Part Name     | DENSO P/N   | Manu. P/N   | QTY | I/C | Start | End  | Remarks |
|---|---|------------|---------------|-------------|-------------|-----|-----|-------|------|---------|
|   |   | 1-10       | WASHER        | 093175-4480 | 23632-17024 | 1C  |     |       |      | T1.825  |
|   |   | 1-10       | WASHER        | 093175-4490 | 23632-17025 | 1C  |     |       |      | T1.85   |
|   |   | 1-10       | WASHER        | 093175-4500 | 23631-17063 | 1C  |     |       |      | T1.875  |
|   |   | 1-10       | WASHER        | 093175-4510 | 23632-17026 | 1C  |     |       |      | T1.9    |
|   |   | 1-10       | WASHER        | 093175-4520 | 23632-17027 | 1C  |     |       |      | T1.925  |
|   |   | 1-10       | WASHER        | 093175-4530 | 23631-17064 | 1C  |     |       |      | T1.95   |
|   |   | 1-10       | WASHER        | 093175-4540 | 23632-17028 | 1C  |     |       |      | T1.975  |
|   |   | 1-10       | WASHER        | 093175-4550 | 23631-17065 | 1C  |     |       |      | T2.0    |
|   |   | 1-10       | WASHER        | 093175-4570 | 23632-17029 | 1C  |     |       |      | T2.05   |
|   |   | 1-10       | WASHER        | 093175-4580 | 23632-17030 | 1C  |     |       |      | T2.075  |
|   |   | 1-10       | WASHER        | 093175-4590 | 23631-17066 | 1C  |     |       |      | T2.1    |
|   |   | 1-10       | WASHER        | 093175-4600 | 23632-17031 | 1C  |     |       |      | T2.125  |
|   |   | 1-10       | WASHER        | 093175-4610 | 23632-17032 | 1C  |     |       |      | T2.15   |
|   |   | 1-10       | WASHER        | 093175-4620 | 23631-17067 | 1C  |     |       |      | T2.175  |
|   |   | 1-10       | WASHER        | 093175-4630 | 23632-17033 | 1C  |     |       |      | T2.2    |
|   |   | 1-11       | WASHER        | 093175-6070 | 23631-17076 | 1C  |     |       | 9708 | T1.90   |
|   |   | 1-11       | WASHER        | 093175-6080 | 23631-17074 | 1C  |     |       | 9708 | T1.925  |
|   |   | 1-11       | WASHER        | 093175-6090 | 23631-17077 | 1C  |     |       | 9708 | T1.95   |
|   |   | 1-11       | WASHER        | 093175-6100 | 23631-17078 | 1C  |     |       | 9708 | T1.975  |
|   |   | 1-11       | WASHER        | 093175-6110 | 23631-17075 | 1C  |     |       | 9708 | T2.00   |
|   |   | 1-11       | WASHER        | 093175-6350 | 23631-17090 | 1C  | D   | 9709  |      | T2.400  |
|   |   | 1-11       | WASHER        | 093175-6360 | 23631-17091 | 1C  | D   | 9709  |      | T2.425  |
|   |   | 1-11       | WASHER        | 093175-6370 | 23631-17092 | 1C  | D   | 9709  |      | T2.450  |
|   |   | 1-11       | WASHER        | 093175-6380 | 23631-17093 | 1C  | D   | 9709  |      | T2.475  |
|   |   | 1-11       | WASHER        | 093175-6390 |             | 1C  | D   | 9709  |      | T2.500  |
|   |   | 1-12       | PACKING, TIP  | 093221-0180 | 23659-17070 | 01  |     |       |      | *1      |
|   |   | 1-13       | PIN, STRAIGHT | 949082-3650 | 90099-08099 | 02  |     |       |      |         |
| S |   | 2          | NOZZLE ASSY   | 093400-6450 | 23620-58070 | 01  |     |       |      |         |

DENSO P/N : 093500-6240

Manufacturer : TOYOTA



**PQ0100**

# Parts List

Compo. P/N: 093500-6240

Assy P/N: 093500-6240

| S | M | Illust.No. | Part Name          | DENSO P/N   | Manu. P/N   | QTY | I/C | Start | End  | Remarks   |
|---|---|------------|--------------------|-------------|-------------|-----|-----|-------|------|-----------|
|   |   | 0          | HOLDER & NOZZLE SE | 093500-6241 | 23600-59216 | 01  |     |       |      |           |
| * |   | 1          | HOLDER & NOZZLE SE | 093500-6120 | 23600-58070 | 01  |     |       |      | NO SUPPLY |
|   |   | 2          | GASKET             | 093133-0530 | 23681-17010 | 01  |     |       |      |           |
|   |   | 3          | GASKET             | 093133-0541 | 90904-30006 | 01  |     |       |      |           |
|   |   | 4          | RING, RUBBER       | 093249-0050 | 96721-24015 | 01  |     |       |      | ID14.8    |
| * |   | 5          | GASKET             | 093133-0550 | 11176-17020 | 01  |     |       | 0103 | NO SUPPLY |
| * |   | 5          | GASKET             | 093133-0700 | 11176-27010 | 01  | A   | 0104  |      | NO SUPPLY |

|  |             |
|--|-------------|
| Pump Assy P/N                                    | 093500-6120 |
| Nozzle && Nozzle Holder P/N                      | 093500-6120 |
| First Opening Pressure [Mpa]                     | 17.64-18.62 |
| First Opening Pressure [kgf / cm <sup>l</sup> ]  | 180-190     |
| Second Opening Pressure [Mpa]                    | 18.52-19.50 |
| Second Opening Pressure [kgf / cm <sup>l</sup> ] | 189-199     |
| Pre-lift [mm]                                    | 0.100-0.120 |
| Maximum needle lift [mm]                         | 0.230-0.280 |
| Retaining Nut Tightening Torque [N · m]          | 24.5-34.3   |
| Retaining Nut Tightening Torque [kgf · m]        | 2.5-3.5     |
| Nozzle P/N                                       | 093400-6450 |

## Representative Applicable Vehicle

|                  |   |
|------------------|---|
| Car Manufacturer | TOYOTA  |
| Vehicle          | DYNA  |
| E/G type         | 15B-FT  |
| Remarks          | Modification(Second opening pressure:189-199 -> 264-274, September 1997). Refer to service bulletin THZ97-01. |