

OCD10-M66500EN

# PREFACE

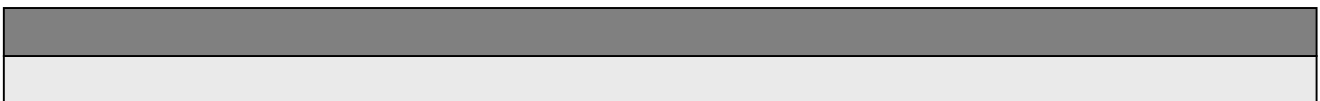
1. This parts catalog is the Second edition of 4TNE88-TB for Takeuchi Mfg. Co., Ltd.
2. This parts catalog does not contain the technical data needed for maintenance service.
3. The illustrations used in this parts catalog have been simplified for clarity.

Pub. No.: 000Y00D6650  
Published: September, 1998

#### 4. Model name

| Engine model | Vehicle   |            | Vehicle made by         |
|--------------|-----------|------------|-------------------------|
|              | Products  | Model name |                         |
| 4TNE88-TB    | EXCAVATOR | A9C        | Takeuchi Mfg. Co., Ltd. |

5. The contents of this parts catalog are subject to change without prior notice.



## Directions for the Parts Catalog.

1. This Parts Catalog shows both standard and optional parts.
2. Parts may change without prior notice.
3. The following is an example of the Parts Catalog format.

| REF. | LEV. | PARTS NO.  | DESCRIPTION         | Q'TY |     |     |     |     |     | I | R |
|------|------|--|---------------------|------|-----|-----|-----|-----|-----|---|---|
|      |      |  |                     | (A)  | (B) | (C) | (D) | (E) | (F) |   |   |
| 1    | 1    | 729595-51390   | FUEL INJECTION PUMP | 1    | 1   | 1   | 1   | 1   |     |   | 1 |
| 1-1  | 1    | 729595-51391   | FUEL INJECTION PUMP | 1    | 1   | 1   | 1   | 1   |     | N | 1 |
|      |      | (A=E00185) (B=E00200)                                  |                     |      |     |     |     |     |     |   |   |
| 3    | 2    | 26022-060162   | SCREW M 6X 16       | 9    | 9   | 9   | 9   | 9   |     |   |   |
| 3-1  | 2    | 26022-060162   | SCREW M 6X 16       | 4    | 4   | 4   | 4   | 4   |     | K |   |
|      |      | (A=E00156) (B=E00156) (C=E00156) (D=E00156) (E=E00156) |                     |      |     |     |     |     |     |   |   |
| 4    | 2    | 129470-51040   | CAMSHAFT            | 1    | 1   | 1   | 1   | 1   |     |   |   |
| 5    | 2    | 122710-51050   | BEARING, ROLLER     | 2    | 2   | 2   | 2   | 2   |     |   |   |
| 6    | 2    | 129470-51060   | RETAINER            | 1    | 1   | 1   | 1   | 1   |     |   |   |

|   |
|---|
| Remarks   |
| (1) BOOST COMPEMSATOR TYPE. OPTIONAL PART, TO E00155,(4JH-DT, 4JH-DTZ |

### ① Ref. No.

The Ref. No. listed may not be in accordance with the illustration Ref. No.

(Ex.) Illustration No.

List Ref No.

1

1

(Before change)

1-1

(After change)

For interchangeable symbols N, R and K, illustrations for new parts may be abbreviated.

### ② Lev. (Level)

Level indication

The numbers below indicate the level of relativity towards the main part.

1 ----- Main parts (Assembly parts)

2 ----- Sub component included in " 1 ".

3 ----- Sub component included in " 2 ".

Note) Parts that are not for sale are partially illustrated but not listed.

### ③ Interchangeability Symbol

When a part change takes place, one of the following interchangeability symbols is indicated beside the part.

| Symbol | Interchangeability  | Contents note  |
|--------|---|--|
| N      | Old $\begin{matrix} \leftarrow \text{Yes} \\ \text{No} \rightarrow \end{matrix}$ New  | New Part is interchangeable for Old Part but Old Part is not interchangeable for New Part. |
| Q      | Old $\begin{matrix} \leftarrow \text{No} \\ \text{Yes} \rightarrow \end{matrix}$ New  | New Part is not interchangeable for Old Part but Old Part is interchangeable for New Part. |
| R      | Old $\begin{matrix} \leftarrow \text{Yes} \\ \text{Yes} \rightarrow \end{matrix}$ New | New/ Old Parts are both interchangeable.   |
| S      | Old $\begin{matrix} \leftarrow \text{No} \\ \text{No} \rightarrow \end{matrix}$ New   | New/ Old Parts are both not interchangeable.   |
| W      |   | Part newly added.  |
| Z      |   | Part discontinued.   |
| F      |   | Not interchangeable by a single part but interchangeable together with related parts.      |
| K      |   | Changes only for used parts quantities.  |

### ④ Effective Machine No.

When a part changes, the effective Machine No. will be indicated in the (A)-(F) column.

| Product Symbol | Product No.               | Product Symbol | Product No.                       |
|----------------|---------------------------|----------------|-----------------------------------|
| C              | Clutch No. Compressor No. | F              | Machine No. (Agricultural Equip.) |
| D              | Drive No.                 | M              | Machine No.                       |
| E              | Engine No.                |                |                                   |

Note 1) A date may follow the symbol. (Ex.) 1996.01

Note 2) "XXXXX" and "ZZZZZ" are for parts that could not be predicted or for engine models that could not be identified.

Note 3) (A=E00185) is the E (Engine Serial Number) for the column (A) model (in this case 4JH-DT) after the parts design change.

### ⑤ Remarks

Figures or alphabets (symbols) are entered in the remarks column.

The comments (remarks) on parts that are indicated at the bottom of the illustration are the same symbols as those stated above.

# Contents

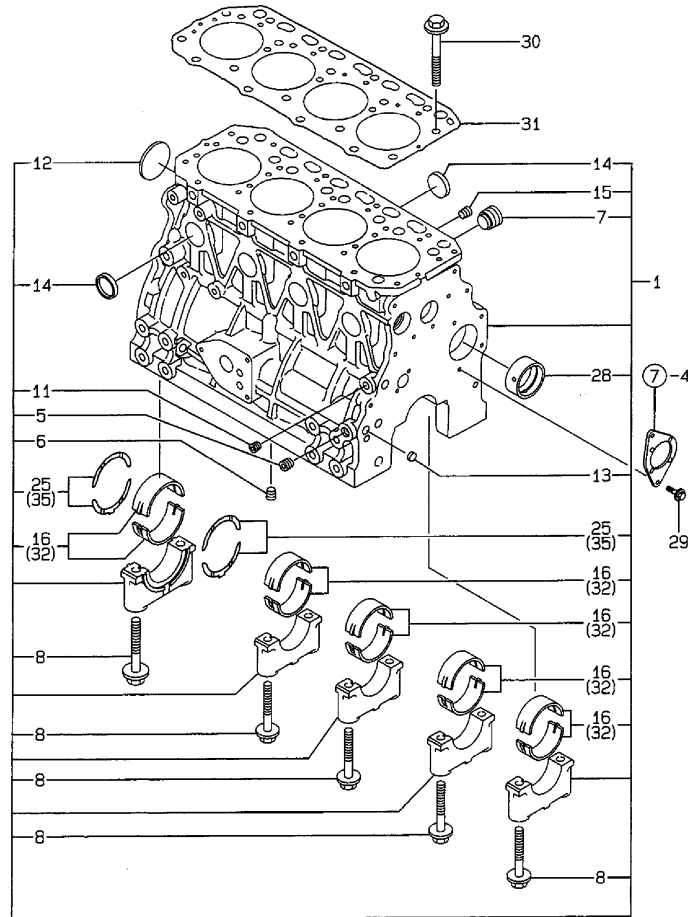
Fig. No.    Fig. Name

4TNE88-TB

1. CYLINDER BLOCK
2. GEAR HOUSING
3. FLYWHEEL HOUSING & OIL SUMP
4. CYLINDER HEAD & BONNET
5. SUCTION MANIFOLD & AIR CLEANER
6. EXHAUST MANIFOLD & SILENCER
7. CAMSHAFT & DRIVING GEAR
8. CRANKSHAFT & PISTON
9. LUB.OIL SYSTEM
10. COOLING WATER SYSTEM
11. FUEL INJECTION PUMP
12. GOVERNOR
13. FUEL INJECTION VALVE
14. FUEL LINE
15. STARTING MOTOR
16. GENERATOR
17. GASKET SET

Fig. No.    Fig. Name

Fig.1. CYLINDER BLOCK



(A)=4TNE88-TB

(B)=

(C)=

(D)=

(E)=

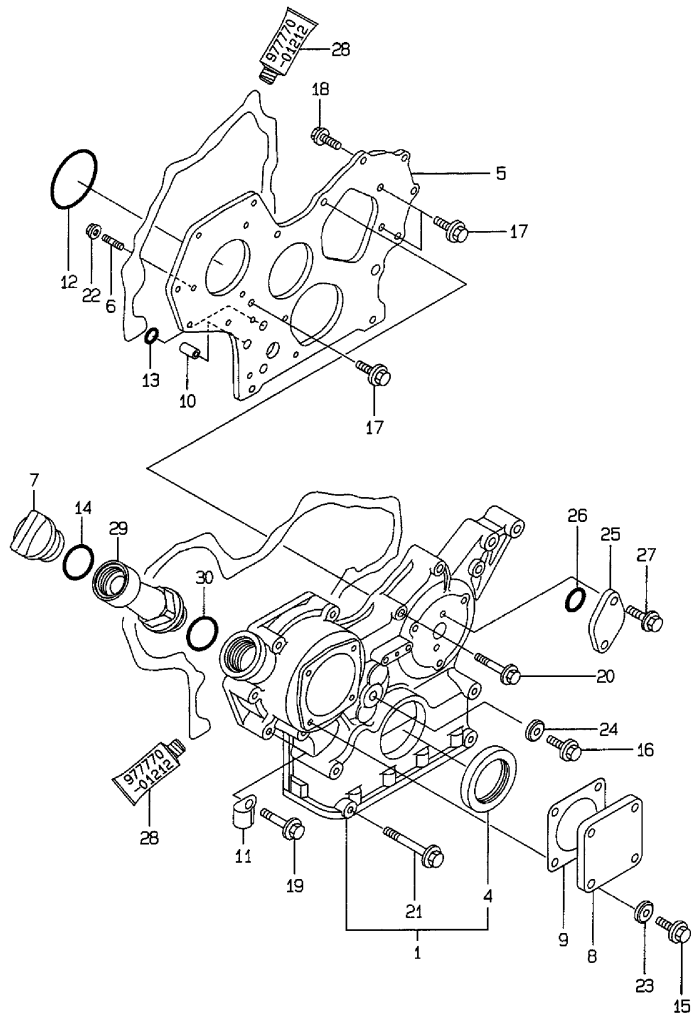
(F)=

| No. | Lev. | Parts No.    | Description          | Q'ty |     |     |     |     |     | I | R |
|-----|------|--------------|----------------------|------|-----|-----|-----|-----|-----|---|---|
|     |      |              |                      | (A)  | (B) | (C) | (D) | (E) | (F) |   |   |
| 1   | 1    | 729407-01561 | BLOCK ASSY, CYLINDER | 1    |     |     |     |     |     |   |   |
| 5   | 2    | 124160-01910 | PLUG, PT1/4          | 2    |     |     |     |     |     |   |   |
| 6   | 2    | 124160-01910 | PLUG, PT1/4          | 1    |     |     |     |     |     |   |   |
| 7   | 2    | 171051-01921 | PLUG, NPTF1          | 1    |     |     |     |     |     |   |   |
| 8   | 2    | 129150-02020 | BOLT, METAL CAP      | 10   |     |     |     |     |     |   |   |
| 11  | 2    | 23871-010000 | PLUG, R01            | 1    |     |     |     |     |     |   |   |
| 12  | 2    | 27231-500000 | PLUG 50              | 1    |     |     |     |     |     |   |   |
| 13  | 2    | 27241-120000 | PLUG, 12             | 2    |     |     |     |     |     |   |   |
| 14  | 2    | 27241-300000 | PLUG 30              | 8    |     |     |     |     |     |   |   |
| 15  | 2    | 23871-030000 | PLUG, R03            | 1    |     |     |     |     |     |   |   |
| 16  | 2    | 129001-02800 | BEARING, MAIN        | 5    |     |     |     |     |     |   |   |
| 25  | 2    | 129150-02930 | BEARING, THRUST      | 2    |     |     |     |     |     |   |   |
| 28  | 2    | 129795-02411 | BUSH, CAMSHAFT       | 1    |     |     |     |     |     |   |   |
| 29  | 1    | 26106-080162 | BOLT, M8X 16 PLATED  | 2    |     |     |     |     |     |   |   |
| 30  | 1    | 129150-01200 | BOLT, HEAD           | 18   |     |     |     |     |     |   |   |
| 31  | 1    | 129407-01340 | GASKET, HEAD         | 1    |     |     |     |     |     |   |   |
| 32  | 1    | 129150-02870 | BEARING, 0.25 US     | 5    |     |     |     |     |     |   | 1 |
| 35  | 1    | 129150-02940 | BEARING, THRUST 0.25 | 2    |     |     |     |     |     |   | 2 |

Remarks

- (1) UNDER-SIZED(U.S=0.25)PART.
- (2) OVER-SIZED(O.S=0.25)PART.

Fig.2. GEAR HOUSING



(A)=4TNE88-TB

(B)=

(C)=

(D)=

(E)=

(F)=

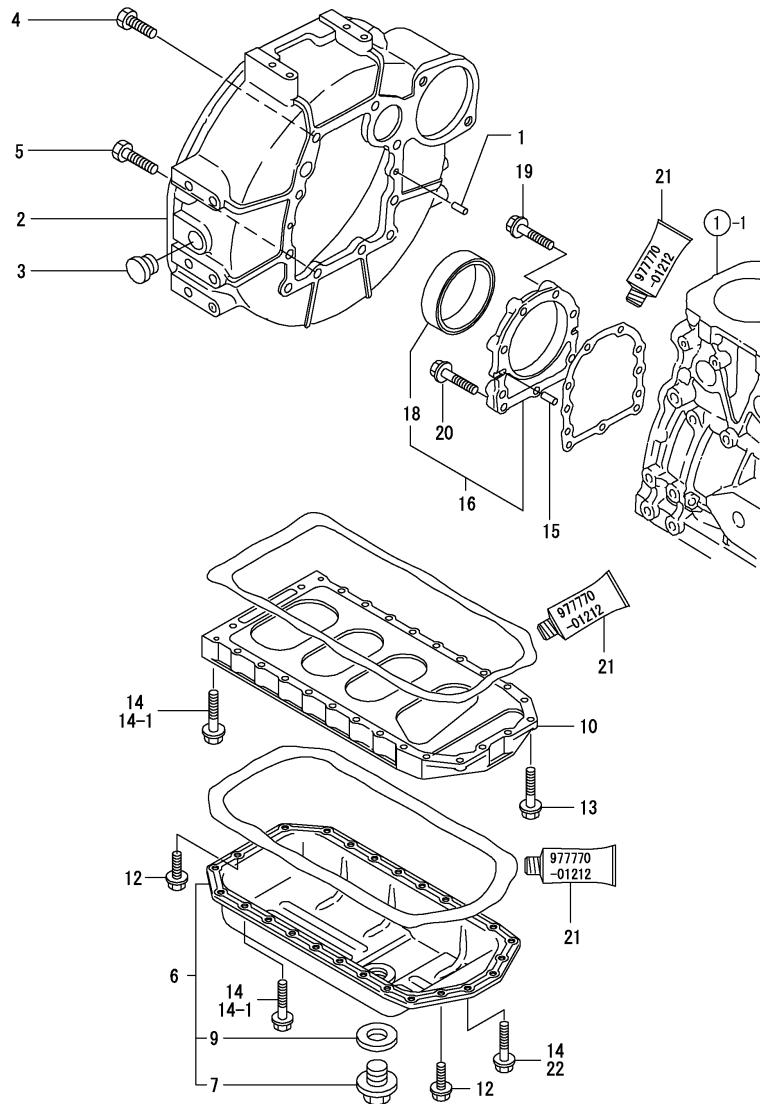
| No. | Lev. | Parts No.    | Description         | Q'ty |     |     |     |     |     | I | R |
|-----|------|--------------|---------------------|------|-----|-----|-----|-----|-----|---|---|
|     |      |              |                     | (A)  | (B) | (C) | (D) | (E) | (F) |   |   |
| 1   | 1    | 719810-01500 | CASE ASSY, GEAR     | 1    |     |     |     |     |     |   |   |
| 4   | 2    | 129795-01800 | SEAL, OIL           | 1    |     |     |     |     |     |   |   |
| 5   | 1    | 129400-01520 | FLANGE, GEAR CASE   | 1    |     |     |     |     |     |   |   |
| 6   | 1    | 121450-01560 | STUD, M8X22         | 3    |     |     |     |     |     |   |   |
| 7   | 1    | 124160-01751 | COVER, FILLER       | 1    |     |     |     |     |     |   |   |
| 8   | 1    | 124240-01871 | COVER               | 1    |     |     |     |     |     |   |   |
| 9   | 1    | 124240-01883 | GASKET              | 1    |     |     |     |     |     |   |   |
| 10  | 1    | 129795-01950 | PIPE, KNOCK L=18    | 2    |     |     |     |     |     |   |   |
| 11  | 1    | 129150-03100 | RETAINER, PIPE      | 1    |     |     |     |     |     |   |   |
| 12  | 1    | 121850-51960 | O-RING              | 1    |     |     |     |     |     |   |   |
| 13  | 1    | 24311-000160 | O-RING, 1AP16.0     | 2    |     |     |     |     |     |   |   |
| 14  | 1    | 24311-000320 | O-RING, 1AP32.0     | 1    |     |     |     |     |     |   |   |
| 15  | 1    | 26106-080122 | BOLT, M8X 12 PLATED | 4    |     |     |     |     |     |   |   |
| 16  | 1    | 26106-080162 | BOLT, M8X 16 PLATED | 1    |     |     |     |     |     |   |   |
| 17  | 1    | 26106-080162 | BOLT, M8X 16 PLATED | 3    |     |     |     |     |     |   |   |
| 18  | 1    | 26106-080202 | BOLT, M8X 20 PLATED | 2    |     |     |     |     |     |   |   |
| 19  | 1    | 26106-080452 | BOLT, M8X 45 PLATED | 6    |     |     |     |     |     |   |   |
| 20  | 1    | 26106-080552 | BOLT, M8X 55 PLATED | 3    |     |     |     |     |     |   |   |
| 21  | 1    | 129001-91840 | BOLT, M8X85         | 4    |     |     |     |     |     |   |   |
| 22  | 1    | 26366-080002 | NUT, M8             | 3    |     |     |     |     |     |   |   |
| 23  | 1    | 22190-080002 | WASHER, SEAL 6      | 4    |     |     |     |     |     |   |   |
| 24  | 1    | 22190-080002 | WASHER, SEAL 6      | 1    |     |     |     |     |     |   |   |
| 25  | 1    | 121023-01550 | COVER               | 1    |     |     |     |     |     |   |   |
| 26  | 1    | 24341-000240 | O-RING, 1AS24.0     | 1    |     |     |     |     |     |   |   |
| 27  | 1    | 26106-060162 | BOLT, M6X 16 PLATED | 2    |     |     |     |     |     |   |   |
| 28  | 1    | 977770-01212 | GASKET, LIQUID      | 1    |     |     |     |     |     |   | 1 |
| 29  | 1    | 171031-11741 | PIPE                | 1    |     |     |     |     |     |   |   |
| 30  | 1    | 24311-000320 | O-RING, 1AP32.0     | 1    |     |     |     |     |     |   |   |

Remarks

(1) OPTIONAL PART.

N:Old  $\begin{matrix} \leftarrow \text{Yes} \\ \text{No} \end{matrix}$  New, Q:Old  $\begin{matrix} \leftarrow \text{No} \\ \text{Yes} \end{matrix}$  New, R:Old  $\begin{matrix} \leftarrow \text{Yes} \\ \text{Yes} \end{matrix}$  New, S:Old  $\begin{matrix} \leftarrow \text{No} \\ \text{No} \end{matrix}$  New, W:Add, Z:Discontinued, F:Interchangeable by set, K:Q'ty Change

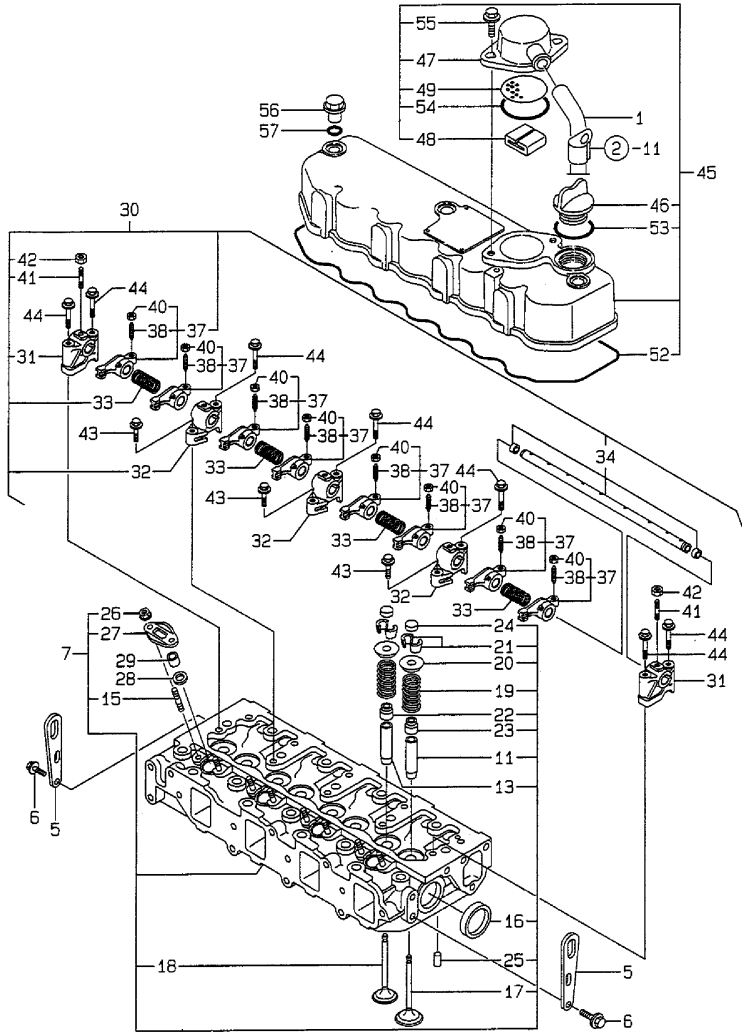
Fig.3. FLYWHEEL HOUSING & OIL SUMP



| No.          | Lev. | Parts No.    | Description          | Q'ty |     |     |     |     |     | I | R |
|--------------|------|--------------|----------------------|------|-----|-----|-----|-----|-----|---|---|
|              |      |              |                      | (A)  | (B) | (C) | (D) | (E) | (F) |   |   |
| 1            | 1    | 129100-01580 | PIN, M8X16           | 2    |     |     |     |     |     |   |   |
| 2            | 1    | 129612-01600 | HOUSING, FLYWHEEL    | 1    |     |     |     |     |     |   |   |
| 3            | 1    | 119620-01750 | CAP                  | 1    |     |     |     |     |     |   |   |
| 4            | 1    | 26206-100252 | BOLT, M10X 25 PLATED | 6    |     |     |     |     |     |   |   |
| 5            | 1    | 26206-100302 | BOLT, M10X 30 PLATED | 4    |     |     |     |     |     |   |   |
| 6            | 1    | 729402-01540 | SUMP ASSY, OIL       | 1    |     |     |     |     |     |   |   |
| 7            | 2    | 119640-01640 | PLUG, DRAIN M22      | 1    |     |     |     |     |     |   |   |
| 9            | 2    | 22190-220002 | WASHER, SEAL 22      | 1    |     |     |     |     |     |   |   |
| 10           | 1    | 129400-01730 | SPACER, OIL SUMP     | 1    |     |     |     |     |     |   |   |
| 12           | 1    | 26106-080162 | BOLT, M8X 16 PLATED  | 4    |     |     |     |     |     |   |   |
| 13           | 1    | 26106-080252 | BOLT, M8X 25 PLATED  | 2    |     |     |     |     |     |   |   |
| 14           | 1    | 26106-080452 | BOLT, M8X 45 PLATED  | 24   |     |     |     |     |     |   |   |
| 14-1         | 1    | 26106-080452 | BOLT, M8X 45 PLATED  | 20   |     |     |     |     |     |   | K |
| (A=FROM 1ST) |      |              |                      |      |     |     |     |     |     |   |   |
| 15           | 1    | 129100-01580 | PIN, M8X16           | 2    |     |     |     |     |     |   |   |
| 16           | 1    | 129100-01640 | CASE ASSY, OIL SEAL  | 1    |     |     |     |     |     |   |   |
| 18           | 2    | 129795-01780 | SEAL, OIL            | 1    |     |     |     |     |     |   |   |
| 19           | 1    | 129486-01670 | BOLT, M8X30          | 6    |     |     |     |     |     |   |   |
| 20           | 1    | 26106-080352 | BOLT, M8X 35 PLATED  | 3    |     |     |     |     |     |   |   |
| 21           | 1    | 977770-01212 | GASKET, LIQUID       | 1    |     |     |     |     |     |   | 1 |
| 22           | 1    | 26106-080502 | BOLT, M8X 50 PLATED  | 4    |     |     |     |     |     |   | W |
| (A=FROM 1ST) |      |              |                      |      |     |     |     |     |     |   |   |

Remarks  
(1) OPTIONAL PART.

Fig.4. CYLINDER HEAD & BONNET



(A)=4TNE88-TB

(B)=

(C)=

(D)=

(E)=

(F)=

| No. | Lev. | Parts No.    | Description         | Q'ty |     |     |     |     |     | I | R |
|-----|------|--------------|---------------------|------|-----|-----|-----|-----|-----|---|---|
|     |      |              |                     | (A)  | (B) | (C) | (D) | (E) | (F) |   |   |
| 1   | 1    | 171350-03090 | PIPE , BREATHER 900 | 1    |     |     |     |     |     |   |   |
| 5   | 1    | 124736-07900 | LIFTER              | 2    |     |     |     |     |     |   |   |
| 6   | 1    | 26106-080142 | BOLT, M8X 14 PLATED | 4    |     |     |     |     |     |   |   |
| 7   | 1    | 129407-11700 | HEAD ASSY, CYLINDER | 1    |     |     |     |     |     |   |   |
| 11  | 2    | 120130-11860 | GUIDE, VALVE        | 4    |     |     |     |     |     |   | 1 |
| 13  | 2    | 129150-11810 | GUIDE, VALVE        | 4    |     |     |     |     |     |   | 1 |
| 15  | 2    | 26216-060202 | STUD, M6X 20        | 8    |     |     |     |     |     |   |   |
| 16  | 2    | 27241-400000 | PLUG, 40            | 2    |     |     |     |     |     |   |   |
| 17  | 2    | 129100-11100 | VALVE, INTAKE       | 4    |     |     |     |     |     |   |   |
| 18  | 2    | 129100-11110 | VALVE, EXHAUST      | 4    |     |     |     |     |     |   |   |
| 19  | 2    | 129795-11120 | SPRING, VALVE       | 8    |     |     |     |     |     |   |   |
| 20  | 2    | 129795-11180 | RETAINER, SPRING    | 8    |     |     |     |     |     |   |   |
| 21  | 2    | 27310-080001 | COTTER, 8           | 8    |     |     |     |     |     |   |   |
| 22  | 2    | 121400-11340 | SEAL, VALVE STEM    | 4    |     |     |     |     |     |   |   |
| 23  | 2    | 124460-11340 | SEAL, VALVE STEM    | 4    |     |     |     |     |     |   |   |
| 24  | 2    | 129150-11370 | CAP, VALVE          | 8    |     |     |     |     |     |   |   |
| 25  | 2    | 22351-060012 | PIN, SPRING 6.0X12  | 2    |     |     |     |     |     |   |   |
| 26  | 2    | 26366-060002 | NUT, M6             | 8    |     |     |     |     |     |   |   |
| 27  | 2    | 119625-11900 | RETAINER, NOZZLE    | 4    |     |     |     |     |     |   |   |
| 28  | 1    | 119625-11880 | SEAT, NOZZLE        | 4    |     |     |     |     |     |   |   |
| 29  | 1    | 119625-11870 | PROTECTOR, NOZZLE   | 4    |     |     |     |     |     |   |   |
| 30  | 1    | 129500-11240 | SHAFT ASSY, ROCKER  | 1    |     |     |     |     |     |   |   |
| 31  | 2    | 129155-11260 | SUPPORT, ROCKER ARM | 2    |     |     |     |     |     |   |   |
| 32  | 2    | 129155-11270 | SUPPORT, ROCKER ARM | 3    |     |     |     |     |     |   |   |
| 33  | 2    | 129150-11280 | SPRING              | 4    |     |     |     |     |     |   |   |
| 34  | 2    | 129550-11290 | SHAFT, ROCKER ARM   | 1    |     |     |     |     |     |   |   |
| 37  | 2    | 129100-11650 | ARM, ROCKER         | 8    |     |     |     |     |     |   |   |
| 38  | 3    | 129150-11230 | SCREW, VALVE ADJUST | 8    |     |     |     |     |     |   |   |
| 40  | 3    | 129150-11750 | NUT, M8             | 8    |     |     |     |     |     |   |   |
| 41  | 2    | 26226-080182 | STUD, M8X 18        | 3    |     |     |     |     |     |   |   |
| 42  | 2    | 26756-080002 | NUT, LOCK M8        | 3    |     |     |     |     |     |   |   |
| 43  | 1    | 26106-080252 | BOLT, M8X 25 PLATED | 3    |     |     |     |     |     |   |   |
| 44  | 1    | 26106-080502 | BOLT, M8X 50 PLATED | 7    |     |     |     |     |     |   |   |
| 45  | 1    | 129400-11350 | BONNET ASSY, HEAD   | 1    |     |     |     |     |     |   |   |
| 46  | 2    | 124160-01751 | COVER, FILLER       | 1    |     |     |     |     |     |   |   |
| 47  | 2    | 129150-03020 | COVER, BREATHER     | 1    |     |     |     |     |     |   |   |
| 48  | 2    | 129150-03070 | BAFFLE, BREATHER    | 1    |     |     |     |     |     |   |   |
| 49  | 2    | 129150-03080 | PLATE, BAFFLE       | 1    |     |     |     |     |     |   |   |
| 52  | 2    | 129550-11310 | GASKET, BONNET      | 1    |     |     |     |     |     |   |   |
| 53  | 2    | 24311-000320 | O-RING, 1AP32.0     | 1    |     |     |     |     |     |   |   |
| 54  | 2    | 24341-000500 | O-RING, 1AS50.0     | 1    |     |     |     |     |     |   |   |
| 55  | 2    | 26106-080162 | BOLT, M8X 16 PLATED | 2    |     |     |     |     |     |   |   |
| 56  | 1    | 124160-11360 | KNOB                | 3    |     |     |     |     |     |   |   |
| 57  | 1    | 24311-000120 | O-RING, 1AP12.0     | 3    |     |     |     |     |     |   |   |

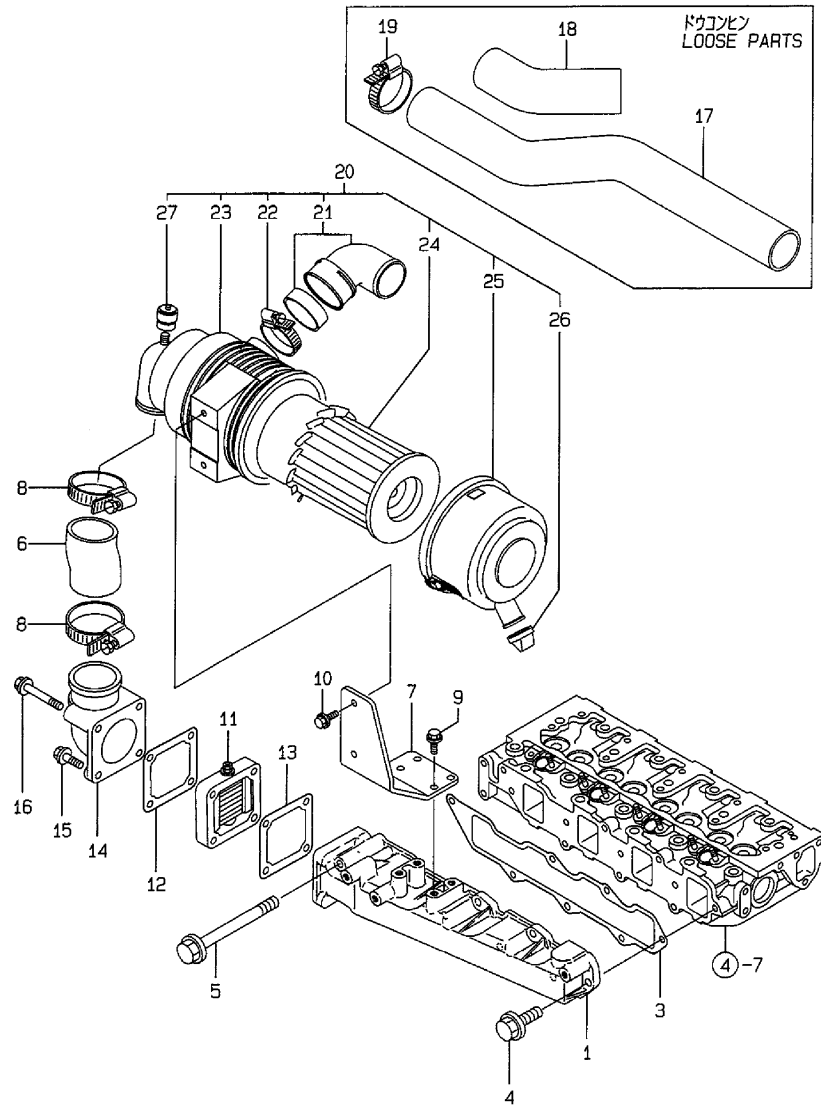
Remarks

(1) REPAIR PART.

N:Old  $\xrightarrow{\text{Yes}}$  New, Q:Old  $\xrightarrow{\text{No}}$  New, R:Old  $\xrightarrow{\text{Yes}}$  New, S:Old  $\xrightarrow{\text{No}}$  New, W:Add, Z:Discontinued, F:Interchangeable by set, K:Q'ty Change

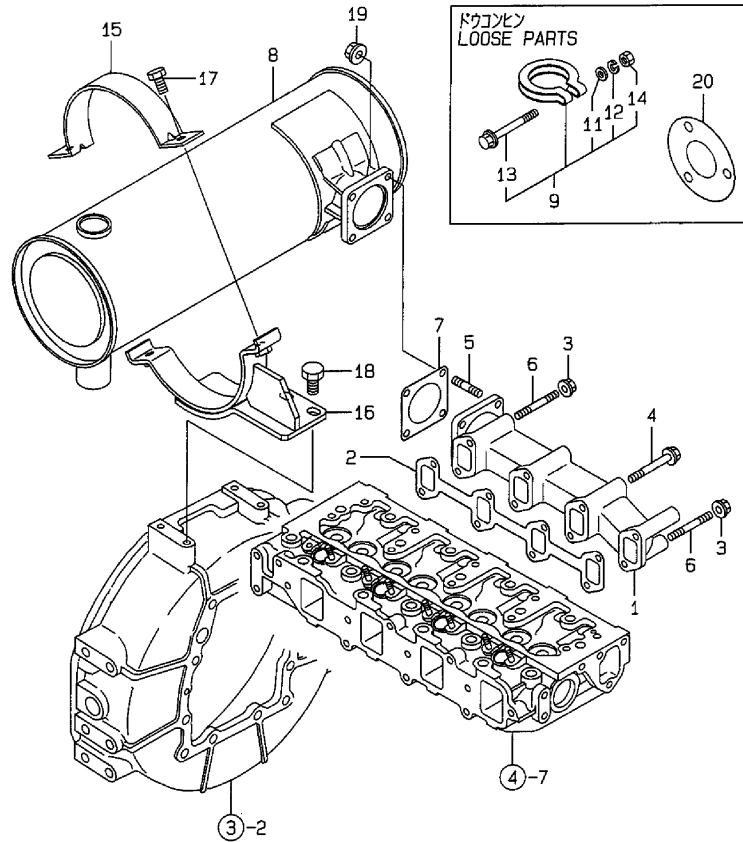


Fig.5. SUCTION MANIFOLD & AIR CLEANER



| No. | Lev. | Parts No.    | Description          | Q'ty |     |     |     |     |     | I | R |
|-----|------|--------------|----------------------|------|-----|-----|-----|-----|-----|---|---|
|     |      |              |                      | (A)  | (B) | (C) | (D) | (E) | (F) |   |   |
| 1   | 1    | 129407-12100 | MANIFOLD, AIR INTAKE | 1    |     |     |     |     |     |   |   |
| 3   | 1    | 129407-12110 | GASKET, MANIFOLD     | 1    |     |     |     |     |     |   |   |
| 4   | 1    | 26106-080202 | BOLT, M8X 20 PLATED  | 6    |     |     |     |     |     |   |   |
| 5   | 1    | 26106-080802 | BOLT, M8X 80 PLATED  | 1    |     |     |     |     |     |   |   |
| 6   | 1    | 119910-12210 | PIPE, AIR INTAKE     | 1    |     |     |     |     |     |   |   |
| 7   | 1    | 119910-12560 | BRACKET, AIR CLEANER | 1    |     |     |     |     |     |   |   |
| 8   | 1    | 23000-060000 | CLAMP, 60            | 2    |     |     |     |     |     |   |   |
| 9   | 1    | 26013-080222 | BOLT, M8X 22         | 4    |     |     |     |     |     |   |   |
| 10  | 1    | 26013-080222 | BOLT, M8X 22         | 2    |     |     |     |     |     |   |   |
| 11  | 1    | 129100-77500 | HEATER, AIR 12V      | 1    |     |     |     |     |     |   |   |
| 12  | 1    | 129100-77510 | GASKET, AIR HEATER   | 1    |     |     |     |     |     |   |   |
| 13  | 1    | 129150-77511 | GASKET               | 1    |     |     |     |     |     |   |   |
| 14  | 1    | 171340-77520 | BEND                 | 1    |     |     |     |     |     |   |   |
| 15  | 1    | 26106-080402 | BOLT, M8X 40 PLATED  | 2    |     |     |     |     |     |   |   |
| 16  | 1    | 26106-080802 | BOLT, M8X 80 PLATED  | 2    |     |     |     |     |     |   |   |
| 17  | 1    | 129132-12210 | PIPE, AIR INTAKE     | 1    |     |     |     |     |     |   |   |
| 18  | 1    | 119869-12220 | PIPE, AIR INTAKE     | 1    |     |     |     |     |     |   |   |
| 19  | 1    | 23000-060000 | CLAMP, 60            | 2    |     |     |     |     |     |   |   |
| 20  | 1    | 129612-12680 | CLEANER ASSY, AIR    | 1    |     |     |     |     |     |   |   |
| 21  | 2    | 129612-12560 | ELBOW                | 1    |     |     |     |     |     |   |   |
| 22  | 2    | 23000-060000 | CLAMP, 60            | 2    |     |     |     |     |     |   |   |
| 23  | 2    | 129612-12690 | CLEANER ASSY, AIR    | 1    |     |     |     |     |     |   |   |
| 24  | 2    | 129612-12550 | ELEMENT              | 1    |     |     |     |     |     |   |   |
| 25  | 2    | 119866-12530 | COVER ASSY           | 1    |     |     |     |     |     |   |   |
| 26  | 2    | 119808-12540 | VALVE, UNLOADER      | 1    |     |     |     |     |     |   |   |
| 27  | 2    | 119140-12680 | INDICATOR            | 1    |     |     |     |     |     |   |   |

Fig.6. EXHAUST MANIFOLD & SILENCER



(A)=4TNE88-TB

(B)=

(C)=

(D)=

(E)=

(F)=

| No. | Lev. | Parts No.    | Description          | Q'ty |     |     |     |     |     | I | R |
|-----|------|--------------|----------------------|------|-----|-----|-----|-----|-----|---|---|
|     |      |              |                      | (A)  | (B) | (C) | (D) | (E) | (F) |   |   |
| 1   | 1    | 129402-13101 | MANIFOLD, EXHAUST    | 1    |     |     |     |     |     |   |   |
| 2   | 1    | 129550-13110 | GASKET               | 1    |     |     |     |     |     |   |   |
| 3   | 1    | 26366-080002 | NUT, M8              | 2    |     |     |     |     |     |   |   |
| 4   | 1    | 26106-080802 | BOLT, M8X 80 PLATED  | 6    |     |     |     |     |     |   |   |
| 5   | 1    | 119131-18320 | STUD, M8X22          | 4    |     |     |     |     |     |   |   |
| 6   | 1    | 26216-080802 | STUD, M8X 80         | 2    |     |     |     |     |     |   |   |
| 7   | 1    | 129400-13201 | GASKET, SILENCER     | 1    |     |     |     |     |     |   |   |
| 8   | 1    | 129612-13590 | SILENCER             | 1    |     |     |     |     |     |   |   |
| 9   | 1    | 121120-13590 | CLAMP                | 1    |     |     |     |     |     |   |   |
| 11  | 2    | 22137-100000 | WASHER, 10           | 1    |     |     |     |     |     |   |   |
| 12  | 2    | 22217-100000 | WASHER, SPRING 10    | 1    |     |     |     |     |     |   |   |
| 13  | 2    | 26106-100652 | BOLT, M10X 65 PLATED | 1    |     |     |     |     |     |   |   |
| 14  | 2    | 26706-100002 | NUT, M10             | 1    |     |     |     |     |     |   |   |
| 15  | 1    | 171091-13670 | BAND                 | 2    |     |     |     |     |     |   |   |
| 16  | 1    | 129612-13680 | STAY, SILENCER       | 2    |     |     |     |     |     |   |   |
| 17  | 1    | 26106-080352 | BOLT, M8X 35 PLATED  | 4    |     |     |     |     |     |   |   |
| 18  | 1    | 26106-100162 | BOLT, M10X 16 PLATED | 4    |     |     |     |     |     |   |   |
| 19  | 1    | 26366-080002 | NUT, M8              | 4    |     |     |     |     |     |   |   |
| 20  | 1    | 103954-13201 | GASKET, SILENCER     | 1    |     |     |     |     |     |   |   |

Fig.7. CAMSHAFT & DRIVING GEAR

(A)=4TNE88-TB

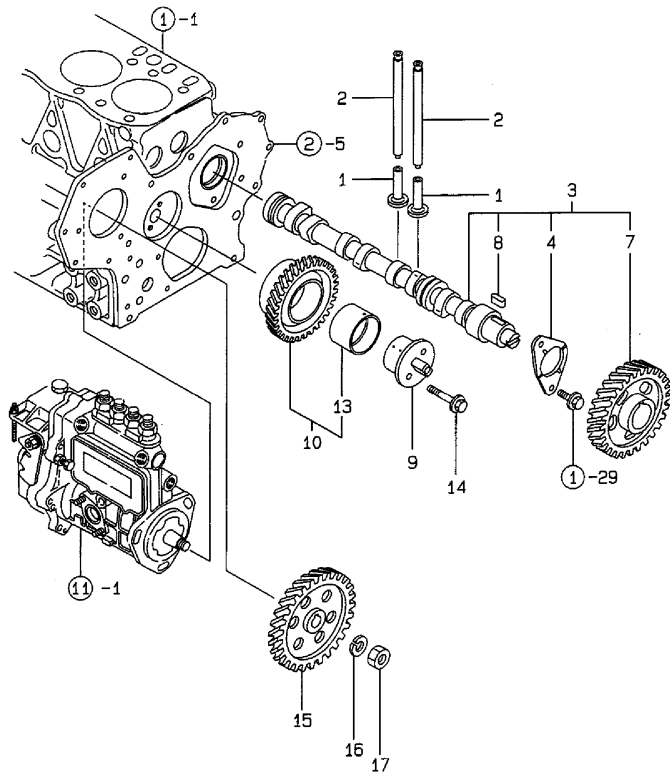
(B)=

(C)=

(D)=

(E)=

(F)=



| No. | Lev. | Parts No.    | Description         | Q'ty |     |     |     |     |     | I | R |
|-----|------|--------------|---------------------|------|-----|-----|-----|-----|-----|---|---|
|     |      |              |                     | (A)  | (B) | (C) | (D) | (E) | (F) |   |   |
| 1   | 1    | 129150-14200 | TAPPET              | 8    |     |     |     |     |     |   |   |
| 2   | 1    | 129150-14400 | ROD, PUSH L=178     | 8    |     |     |     |     |     |   |   |
| 3   | 1    | 729402-14580 | CAMSHAFT ASSY       | 1    |     |     |     |     |     |   |   |
| 4   | 2    | 129150-02450 | BEARING, THRUST     | 1    |     |     |     |     |     |   |   |
| 7   | 2    | 129150-14101 | GEAR, CAMSHAFT      | 1    |     |     |     |     |     |   |   |
| 8   | 2    | 22512-070140 | KEY, 7X 14          | 1    |     |     |     |     |     |   |   |
| 9   | 1    | 129100-25061 | SHAFT, IDLE         | 1    |     |     |     |     |     |   |   |
| 10  | 1    | 129150-25101 | GEAR ASSY, IDLE     | 1    |     |     |     |     |     |   |   |
| 13  | 2    | 129150-25920 | BUSH, IDLE GEAR     | 1    |     |     |     |     |     |   | 1 |
| 14  | 1    | 26106-080452 | BOLT, M8X 45 PLATED | 2    |     |     |     |     |     |   |   |
| 15  | 1    | 129150-25900 | GEAR, PUMP          | 1    |     |     |     |     |     |   |   |
| 16  | 1    | 22217-120000 | WASHER, SPRING 12   | 1    |     |     |     |     |     |   |   |
| 17  | 1    | 26716-120002 | NUT, M12            | 1    |     |     |     |     |     |   |   |

Remarks

(1) REPAIR PART.

# Fig.8. CRANKSHAFT & PISTON

(A)=4TNE88-TB

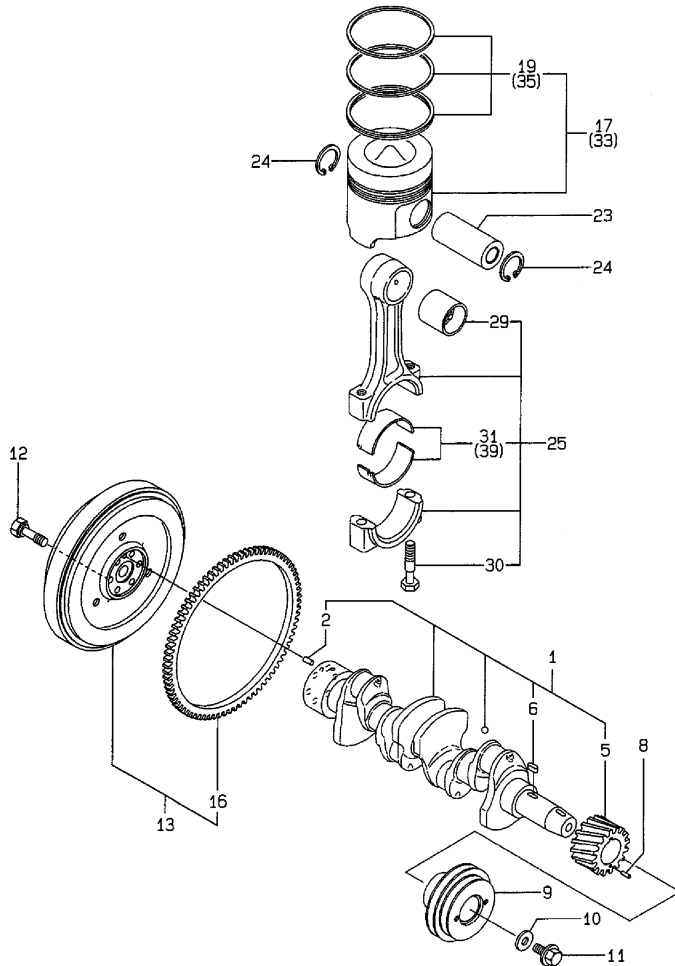
(B)=

(C)=

(D)=

(E)=

(F)=

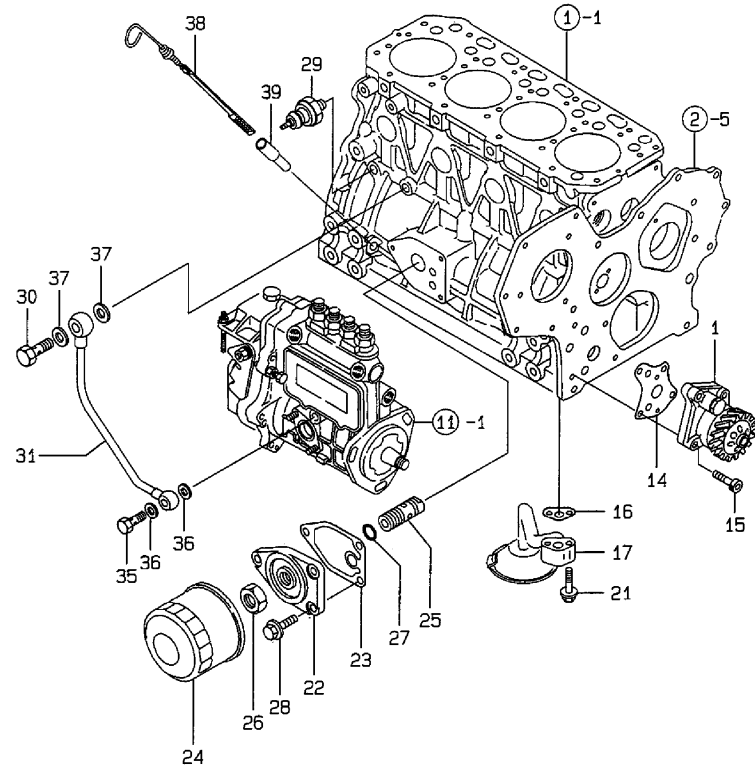


| No. | Lev. | Parts No.    | Description          | Q'ty |     |     |     |     |     | I | R |
|-----|------|--------------|----------------------|------|-----|-----|-----|-----|-----|---|---|
|     |      |              |                      | (A)  | (B) | (C) | (D) | (E) | (F) |   |   |
| 1   | 1    | 129407-21000 | CRANKSHAFT ASSY      | 1    |     |     |     |     |     |   |   |
| 2   | 2    | 129100-01580 | PIN, M8X16           | 1    |     |     |     |     |     |   |   |
| 5   | 2    | 129150-21200 | GEAR, CRANKSHAFT     | 1    |     |     |     |     |     |   |   |
| 6   | 2    | 22512-070140 | KEY, 7X 14           | 1    |     |     |     |     |     |   |   |
| 8   | 1    | 22351-040010 | PIN, SPRING 4.0X10   | 1    |     |     |     |     |     |   |   |
| 9   | 1    | 129466-21650 | V-PULLEY             | 1    |     |     |     |     |     |   |   |
| 10  | 1    | 129795-21661 | WASHER               | 1    |     |     |     |     |     |   |   |
| 11  | 1    | 121850-21680 | BOLT                 | 1    |     |     |     |     |     |   |   |
| 12  | 1    | 121111-21501 | BOLT, FLYWHEEL       | 6    |     |     |     |     |     |   |   |
| 13  | 1    | 129612-21570 | FLYWHEEL ASSY        | 1    |     |     |     |     |     |   |   |
| 16  | 2    | 119865-21600 | GEAR, RING           | 1    |     |     |     |     |     |   |   |
| 17  | 1    | 129001-22081 | PISTON ASSY          | 4    |     |     |     |     |     |   |   |
| 19  | 2    | 129001-22500 | RING SET, PISTON     | 4    |     |     |     |     |     |   |   |
| 23  | 1    | 129202-22300 | PIN, PISTON D26 L70  | 4    |     |     |     |     |     |   |   |
| 24  | 1    | 22252-000260 | RING, 26             | 8    |     |     |     |     |     |   |   |
| 25  | 1    | 729402-23100 | ROD ASSY, CONNECTING | 4    |     |     |     |     |     |   |   |
| 29  | 2    | 129100-23910 | BEARING, PISTON PIN  | 4    |     |     |     |     |     |   | 1 |
| 30  | 2    | 121550-23200 | BOLT, CONNECTING ROD | 8    |     |     |     |     |     |   |   |
| 31  | 2    | 129150-23600 | BEARING, CRANK PIN   | 4    |     |     |     |     |     |   |   |
| 33  | 1    | 129001-22901 | PISTON ASSY, 0.25 OS | 4    |     |     |     |     |     |   | 2 |
| 35  | 2    | 129001-22950 | RING SET, 0.25 OS    | 4    |     |     |     |     |     |   | 2 |
| 39  | 1    | 129150-23610 | BEARING, 0.25 US     | 4    |     |     |     |     |     |   | 3 |

Remarks

- (1) REPAIR PART.
- (2) OVER-SIZE (O.S=0.25) PART.
- (3) UNDER-SIZE (U.S=0.25) PART.

Fig.9. LUB.OIL SYSTEM



(A)=4TNE88-TB

(B)=

(C)=

(D)=

(E)=

(F)=

| No. | Lev. | Parts No.    | Description          | Q'ty |     |     |     |     |     | I | R |
|-----|------|--------------|----------------------|------|-----|-----|-----|-----|-----|---|---|
|     |      |              |                      | (A)  | (B) | (C) | (D) | (E) | (F) |   |   |
| 1   | 1    | 129407-32000 | PUMP ASSY, OIL       | 1    |     |     |     |     |     |   |   |
| 14  | 1    | 129150-32020 | GASKET, PUMP         | 1    |     |     |     |     |     |   |   |
| 15  | 1    | 26450-060252 | BOLT, M6X 25         | 4    |     |     |     |     |     |   |   |
| 16  | 1    | 129150-35041 | GASKET               | 1    |     |     |     |     |     |   |   |
| 17  | 1    | 129150-35091 | PIPE ASSY, OIL INLET | 1    |     |     |     |     |     |   |   |
| 21  | 1    | 26106-080352 | BOLT, M8X 35 PLATED  | 2    |     |     |     |     |     |   |   |
| 22  | 1    | 129150-35101 | BRACKET, STRAINER    | 1    |     |     |     |     |     |   |   |
| 23  | 1    | 129150-35111 | GASKET               | 1    |     |     |     |     |     |   |   |
| 24  | 1    | 129150-35151 | FILTER, D80XL80      | 1    |     |     |     |     |     |   |   |
| 25  | 1    | 129001-35300 | BOLT, FILTER         | 1    |     |     |     |     |     |   |   |
| 26  | 1    | 129150-35350 | NUT                  | 1    |     |     |     |     |     |   |   |
| 27  | 1    | 24311-000160 | O-RING, 1AP16.0      | 1    |     |     |     |     |     |   |   |
| 28  | 1    | 26106-080202 | BOLT, M8X 20 PLATED  | 3    |     |     |     |     |     |   |   |
| 29  | 1    | 124160-39451 | SWITCH               | 1    |     |     |     |     |     |   |   |
| 30  | 1    | 124160-39140 | BOLT, PIPE JOINT M10 | 1    |     |     |     |     |     |   |   |
| 31  | 1    | 129550-39450 | PIPE ASSY, OIL       | 1    |     |     |     |     |     |   |   |
| 35  | 1    | 124550-59820 | BOLT, PIPE JOINT M8  | 1    |     |     |     |     |     |   |   |
| 36  | 1    | 22190-080002 | WASHER, SEAL 6       | 2    |     |     |     |     |     |   |   |
| 37  | 1    | 23414-100000 | GASKET, 10X1.0       | 2    |     |     |     |     |     |   |   |
| 38  | 1    | 171420-34800 | DIPSTICK, OIL        | 1    |     |     |     |     |     |   |   |
| 39  | 1    | 121520-34810 | GUIDE, DIPSTICK      | 1    |     |     |     |     |     |   |   |

Fig.10. COOLING WATER SYSTEM

(A)=4TNE88-TB

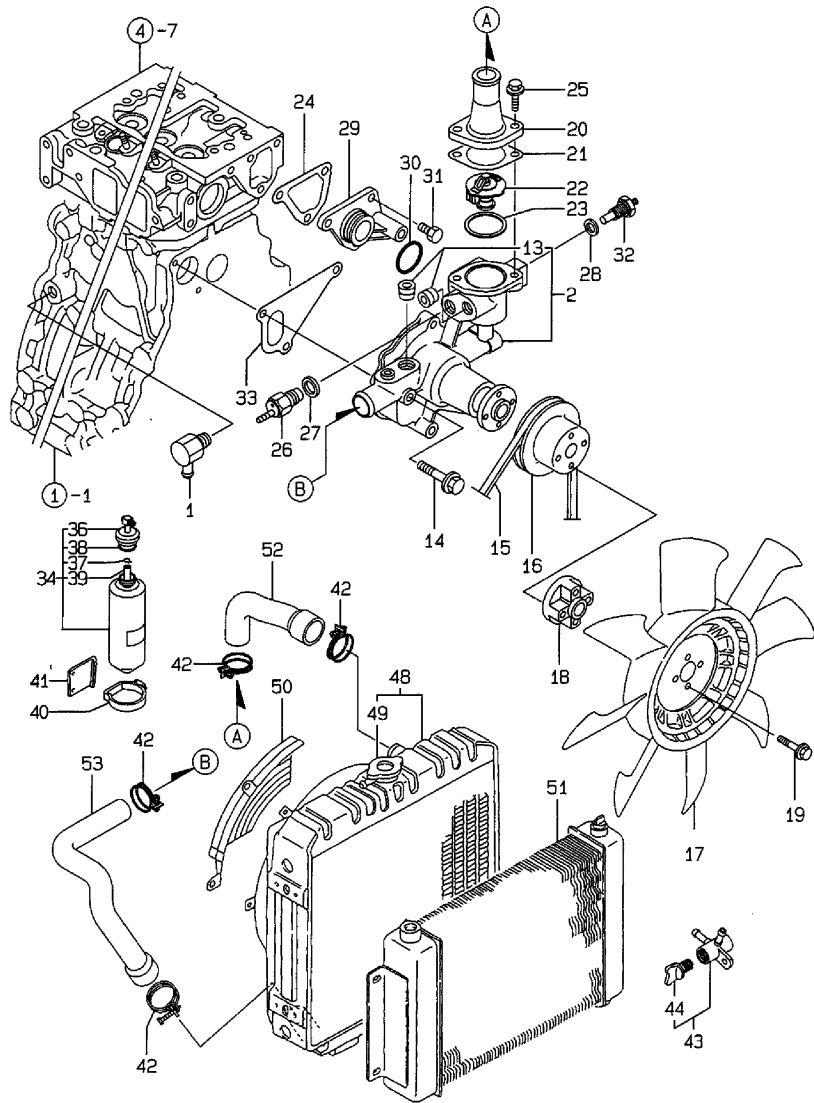
(B)=

(C)=

(D)=

(E)=

(F)=



| No. | Lev. | Parts No.    | Description         | Qty |     |     |     |     |     | I | R |
|-----|------|--------------|---------------------|-----|-----|-----|-----|-----|-----|---|---|
|     |      |              |                     | (A) | (B) | (C) | (D) | (E) | (F) |   |   |
| 1   | 1    | 121750-49110 | JOINT               | 1   |     |     |     |     |     |   |   |
| 2   | 1    | 129001-42002 | PUMP ASSY, WATER    | 1   |     |     |     |     |     |   |   |
| 13  | 2    | 23871-030000 | PLUG, R03           | 2   |     |     |     |     |     |   |   |
| 14  | 1    | 26106-080602 | BOLT, M8X 60 PLATED | 3   |     |     |     |     |     |   |   |
| 15  | 1    | 25132-003900 | V-BELT, A39         | 1   |     |     |     |     |     |   |   |
| 16  | 1    | 129403-42380 | V-PULLEY, D=110     | 1   |     |     |     |     |     |   |   |
| 17  | 1    | 129436-44740 | FAN, COOLING D410   | 1   |     |     |     |     |     |   |   |
| 18  | 1    | 121267-44760 | SPACER              | 1   |     |     |     |     |     |   |   |
| 19  | 1    | 26014-060302 | BOLT, M6X 30        | 4   |     |     |     |     |     |   |   |
| 20  | 1    | 129350-49560 | COVER, THERMOSTAT   | 1   |     |     |     |     |     |   |   |
| 21  | 1    | 129795-49551 | GASKET              | 1   |     |     |     |     |     |   |   |
| 22  | 1    | 129155-49800 | THERMOSTAT, 71      | 1   |     |     |     |     |     |   |   |
| 23  | 1    | 129150-49811 | GASKET, THERMOSTAT  | 1   |     |     |     |     |     |   |   |
| 24  | 1    | 129100-49840 | GASKET              | 1   |     |     |     |     |     |   |   |
| 25  | 1    | 26106-080202 | BOLT, M8X 20 PLATED | 2   |     |     |     |     |     |   |   |
| 26  | 1    | 121250-44901 | SWITCH, 110         | 1   |     |     |     |     |     |   |   |
| 27  | 1    | 124465-44950 | GASKET, 16          | 1   |     |     |     |     |     |   |   |
| 28  | 1    | 129150-49360 | GASKET              | 1   |     |     |     |     |     |   |   |
| 29  | 1    | 129001-42040 | JOINT               | 1   |     |     |     |     |     |   |   |
| 30  | 1    | 24321-000300 | O-RING, 1AG30.0     | 1   |     |     |     |     |     |   |   |
| 31  | 1    | 26106-080162 | BOLT, M8X 16 PLATED | 3   |     |     |     |     |     |   |   |
| 32  | 1    | 119266-49350 | SWITCH              | 1   |     |     |     |     |     |   |   |
| 33  | 1    | 129100-42020 | GASKET, WATER PUMP  | 1   |     |     |     |     |     |   |   |
| 34  | 1    | 171064-44510 | TANK ASSY, SUB      | 1   |     |     |     |     |     |   |   |
| 36  | 2    | 121450-44531 | CAP                 | 1   |     |     |     |     |     |   |   |
| 37  | 2    | 124450-44560 | RETAINER            | 1   |     |     |     |     |     |   |   |
| 38  | 2    | 121470-44581 | GASKET              | 1   |     |     |     |     |     |   |   |
| 39  | 2    | 23065-070225 | HOSE 7X 225         | 1   |     |     |     |     |     |   |   |
| 40  | 1    | 124450-44550 | BAND                | 1   |     |     |     |     |     |   |   |
| 41  | 1    | 121256-44600 | BRACKET, SUB TANK   | 1   |     |     |     |     |     |   |   |
| 42  | 1    | 23010-038000 | CLAMP, 38           | 4   |     |     |     |     |     |   |   |
| 43  | 1    | 129150-49100 | COCK ASSY, 3-WAY    | 1   |     |     |     |     |     |   |   |
| 44  | 2    | 129150-49080 | COCK, DRAIN         | 1   |     |     |     |     |     |   |   |
| 48  | 1    | 119032-44502 | RADIATOR            | 1   |     |     |     |     |     |   |   |
| 49  | 2    | 119032-44550 | CAP, RADIATOR       | 1   |     |     |     |     |     |   |   |
| 50  | 1    | 119032-44591 | NET, WIRE           | 1   |     |     |     |     |     |   |   |
| 51  | 1    | 171091-44900 | COOLER ASSY, OIL    | 1   |     |     |     |     |     |   |   |
| 52  | 1    | 129612-49010 | PIPE, WATER         | 1   |     |     |     |     |     |   |   |
| 53  | 1    | 129612-49020 | PIPE, WATER         | 1   |     |     |     |     |     |   |   |

Fig.11. FUEL INJECTION PUMP

(A)=4TNE88-TB

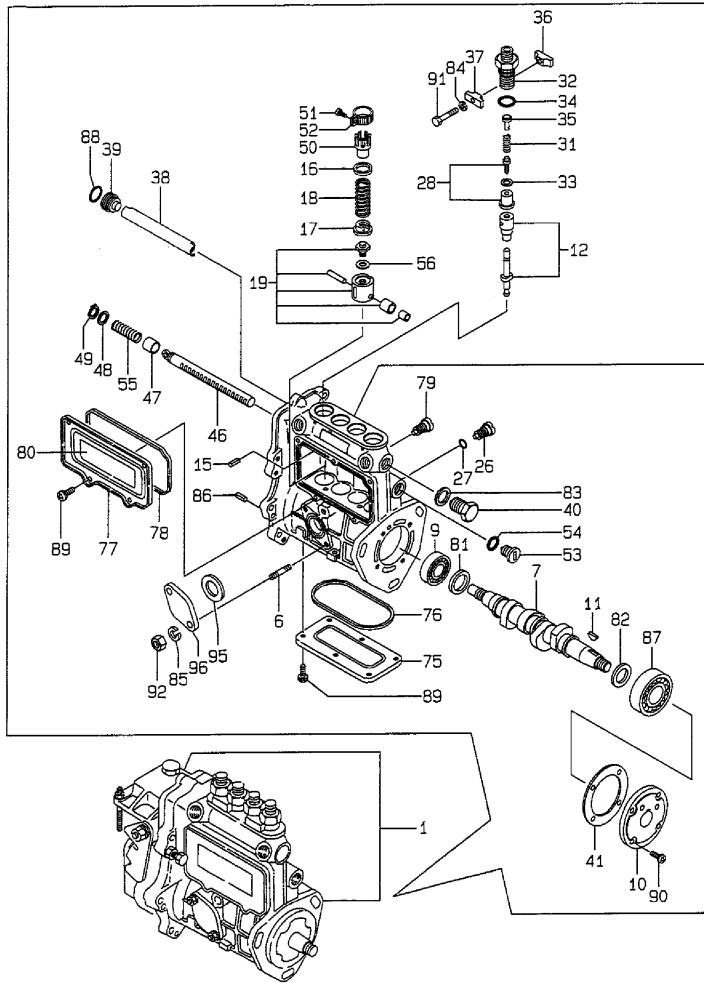
(B)=

(C)=

(D)=

(E)=

(F)=



| No. | Lev. | Parts No.    | Description          | Q'ty |     |     |     |     |     | I | R |
|-----|------|--------------|----------------------|------|-----|-----|-----|-----|-----|---|---|
|     |      |              |                      | (A)  | (B) | (C) | (D) | (E) | (F) |   |   |
| 1   | 1    | 729612-51400 | PUMP ASSY, INJECTION | 1    |     |     |     |     |     |   | 1 |
| 6   | 2    | 129155-51020 | STUD                 | 2    |     |     |     |     |     |   |   |
| 7   | 2    | 129470-51040 | CAMSHAFT             | 1    |     |     |     |     |     |   |   |
| 9   | 2    | 129155-51050 | BEARING, 17BM001D    | 1    |     |     |     |     |     |   |   |
| 10  | 2    | 129155-51060 | SUPPORT, CAMSHAFT    | 1    |     |     |     |     |     |   |   |
| 11  | 2    | 122710-51090 | KEY                  | 1    |     |     |     |     |     |   |   |
| 12  | 2    | 129506-51100 | PLUNGER ASSY         | 4    |     |     |     |     |     |   |   |
| 15  | 2    | 129155-51140 | PIN                  | 4    |     |     |     |     |     |   |   |
| 16  | 2    | 174307-51170 | RETAINER, SPRING A   | 4    |     |     |     |     |     |   |   |
| 17  | 2    | 129155-51180 | RETAINER, SPRING     | 4    |     |     |     |     |     |   |   |
| 18  | 2    | 124950-51190 | SPRING, PLUNGER      | 4    |     |     |     |     |     |   |   |
| 19  | 2    | 129155-51200 | TAPPET ASSY          | 4    |     |     |     |     |     |   |   |
| 26  | 2    | 129155-51270 | STOPPER, TAPPET      | 4    |     |     |     |     |     |   |   |
| 27  | 2    | 129155-51280 | O-RING, S6           | 4    |     |     |     |     |     |   |   |
| 28  | 2    | 129100-51300 | VALVE ASSY, DELIVERY | 4    |     |     |     |     |     |   |   |
| 31  | 2    | 129155-51320 | SPRING, DELIVERY     | 4    |     |     |     |     |     |   |   |
| 32  | 2    | 129155-51340 | RETAINER             | 4    |     |     |     |     |     |   |   |
| 33  | 2    | 124550-51350 | GASKET, DELIVERY     | 4    |     |     |     |     |     |   |   |
| 34  | 2    | 124550-51370 | O-RING               | 4    |     |     |     |     |     |   |   |
| 35  | 2    | 129155-51370 | STOPPER, VALVE       | 4    |     |     |     |     |     |   |   |
| 36  | 2    | 129155-51380 | STOPPER              | 2    |     |     |     |     |     |   |   |
| 37  | 2    | 129155-51390 | STOPPER              | 2    |     |     |     |     |     |   |   |
| 38  | 2    | 129555-51400 | DEFLECTOR            | 1    |     |     |     |     |     |   |   |
| 39  | 2    | 129155-51410 | BOLT                 | 1    |     |     |     |     |     |   |   |
| 40  | 2    | 129155-51420 | PLUG, M16            | 1    |     |     |     |     |     |   |   |
| 41  | 2    | 129155-51450 | SHIM SET, ADJUSTING  | 1    |     |     |     |     |     |   |   |
| 46  | 2    | 129555-51500 | RACK, CONTROL        | 1    |     |     |     |     |     |   |   |
| 47  | 2    | 129155-51521 | BUSH, RACK           | 1    |     |     |     |     |     |   |   |
| 48  | 2    | 129155-51530 | SPACER               | 1    |     |     |     |     |     |   |   |
| 49  | 2    | 129155-51540 | CIRCLIP              | 1    |     |     |     |     |     |   |   |
| 50  | 2    | 129155-51550 | PINION, CONTROL      | 4    |     |     |     |     |     |   |   |
| 51  | 2    | 122117-51560 | SCREW                | 4    |     |     |     |     |     |   |   |
| 52  | 2    | 174307-51560 | PINION               | 4    |     |     |     |     |     |   |   |
| 53  | 2    | 129155-51570 | PLUG, M12            | 1    |     |     |     |     |     |   |   |
| 54  | 2    | 129155-51580 | O-RING               | 1    |     |     |     |     |     |   |   |
| 55  | 2    | 129155-51591 | SPRING, RACK         | 1    |     |     |     |     |     |   |   |
| 56  | 2    | 129155-51600 | SHIM SET, ADJUSTING  | 4    |     |     |     |     |     |   |   |
| 75  | 2    | 129555-51700 | COVER                | 1    |     |     |     |     |     |   |   |
| 76  | 2    | 129555-51710 | GASKET               | 1    |     |     |     |     |     |   |   |
| 77  | 2    | 129555-51750 | COVER                | 1    |     |     |     |     |     |   |   |
| 78  | 2    | 129555-51760 | GASKET               | 1    |     |     |     |     |     |   |   |
| 79  | 2    | 129155-51790 | STOOPER, RACK        | 1    |     |     |     |     |     |   |   |
| 80  | 2    | 129156-51910 | LABEL, CAUTION       | 1    |     |     |     |     |     |   |   |
| 81  | 2    | 129155-51930 | SPACER, T=3.25       | 1    |     |     |     |     |     |   |   |
| 82  | 2    | 129155-51940 | SPACER, T=1.5        | 1    |     |     |     |     |     |   |   |
| 83  | 2    | 22190-160002 | WASHER, SEAL 16      | 1    |     |     |     |     |     |   |   |
| 84  | 2    | 22217-050000 | WASHER, SPRING 5     | 2    |     |     |     |     |     |   |   |
| 85  | 2    | 22217-060000 | WASHER, SPRING 6     | 2    |     |     |     |     |     |   |   |
| 86  | 2    | 22351-050010 | PIN, SPRING 5.0X10   | 2    |     |     |     |     |     |   |   |
| 87  | 2    | 24101-063034 | BEARING, BALL 6303   | 1    |     |     |     |     |     |   |   |
| 88  | 2    | 24341-000160 | O-RING, 1AS16.0      | 1    |     |     |     |     |     |   |   |

Remarks

(1) GOVERNOR ASSY(FIG.NO.12) IS INCORPORATED IN THIS FUEL INJECTION PUMP ASSY(REF.NO.1).

N:Old  $\frac{Yes}{No}$  New, Q:Old  $\frac{No}{Yes}$  New, R:Old  $\frac{Yes}{Yes}$  New, S:Old  $\frac{No}{No}$  New, W:Add, Z:Discontinued, F:Interchangeable by set, K:Q'ty Change

++ CONTINUE ++

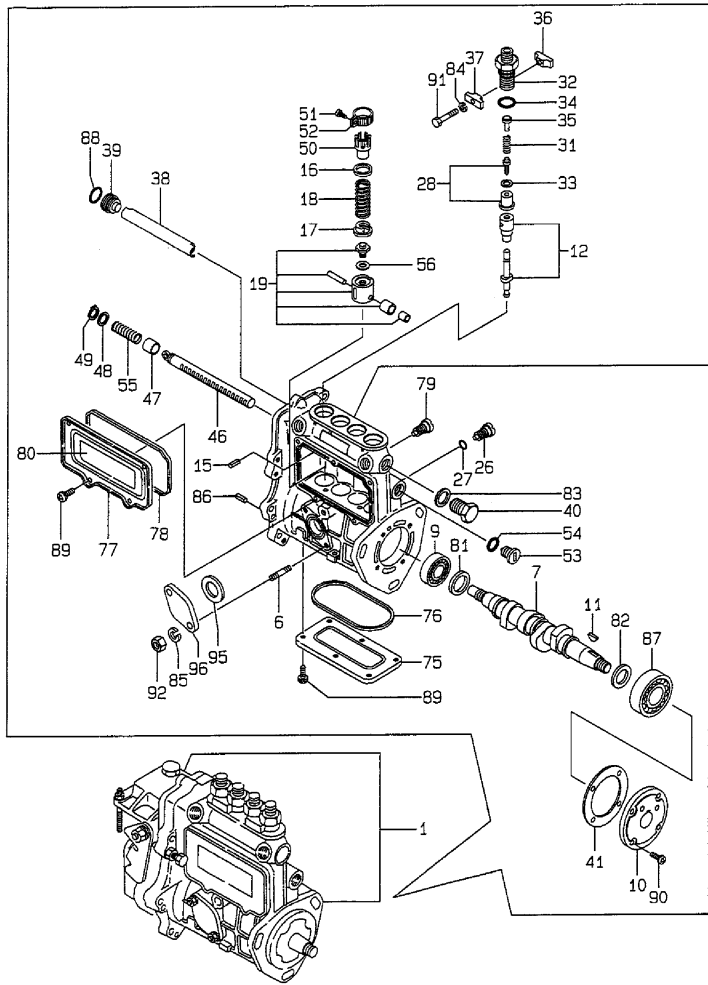
Copyright (C) YANMAR CO., LTD. All RightsReserved.

Fig.11. FUEL INJECTION PUMP

(A)=4TNE88-TB  
(B)=  
(C)=

(D)=  
(E)=  
(F)=

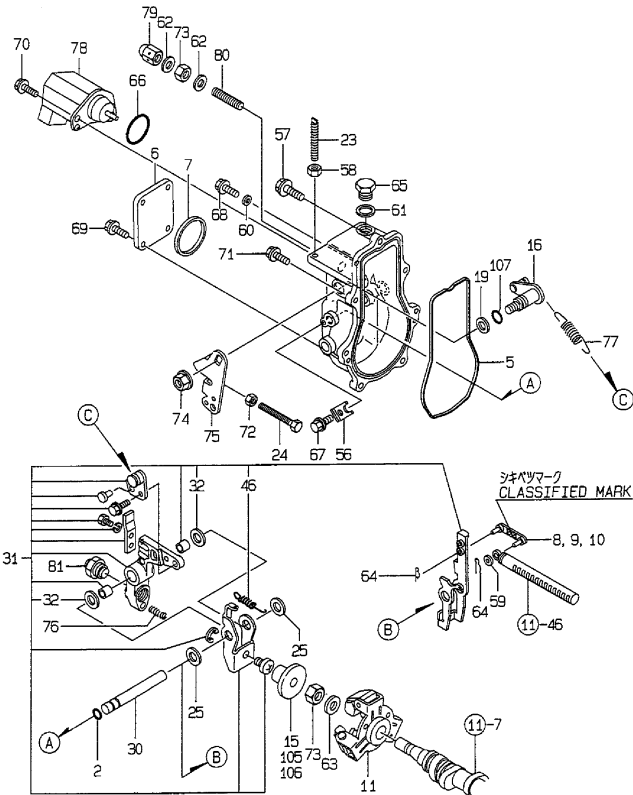
| No. | Lev. | Parts No.    | Description         | Q'ty |     |     |     |     |     | I | R |
|-----|------|--------------|---------------------|------|-----|-----|-----|-----|-----|---|---|
|     |      |              |                     | (A)  | (B) | (C) | (D) | (E) | (F) |   |   |
| 89  | 2    | 26022-050102 | SCREW, M5X10        | 11   |     |     |     |     |     |   |   |
| 90  | 2    | 26022-060162 | SCREW, M6X16        | 4    |     |     |     |     |     |   |   |
| 91  | 2    | 26116-050302 | BOLT, M5X 30 PLATED | 2    |     |     |     |     |     |   |   |
| 92  | 2    | 26716-060002 | NUT, M6             | 2    |     |     |     |     |     |   |   |
| 95  | 2    | 129155-52050 | GASKET              | 1    |     |     |     |     |     |   |   |
| 96  | 2    | 129100-52200 | COVER               | 1    |     |     |     |     |     |   |   |



Remarks  
(1) GOVERNOR ASSY(FIG.NO.12) IS INCORPORATED IN THIS FUEL INJECTION PUMP ASSY(REF.NO.1).



Fig.12. GOVERNOR



Remarks  
 (1) SELECTIVE PARTS: CERTAIN THE CLASSIFICATION MARK, THEN PLACE YOUR ORDER.(REFER TO ILLUSTRATION ).  
 (2) SELECTIVE PARTS.  
 \* THIS FIGURE(GOVERNOR ASSY)IS INCORPORATED IN THE FUEL INJECTION PUMP ASSY(FIG.11).

(A)=4TNE88-TB

(B)=

(C)=

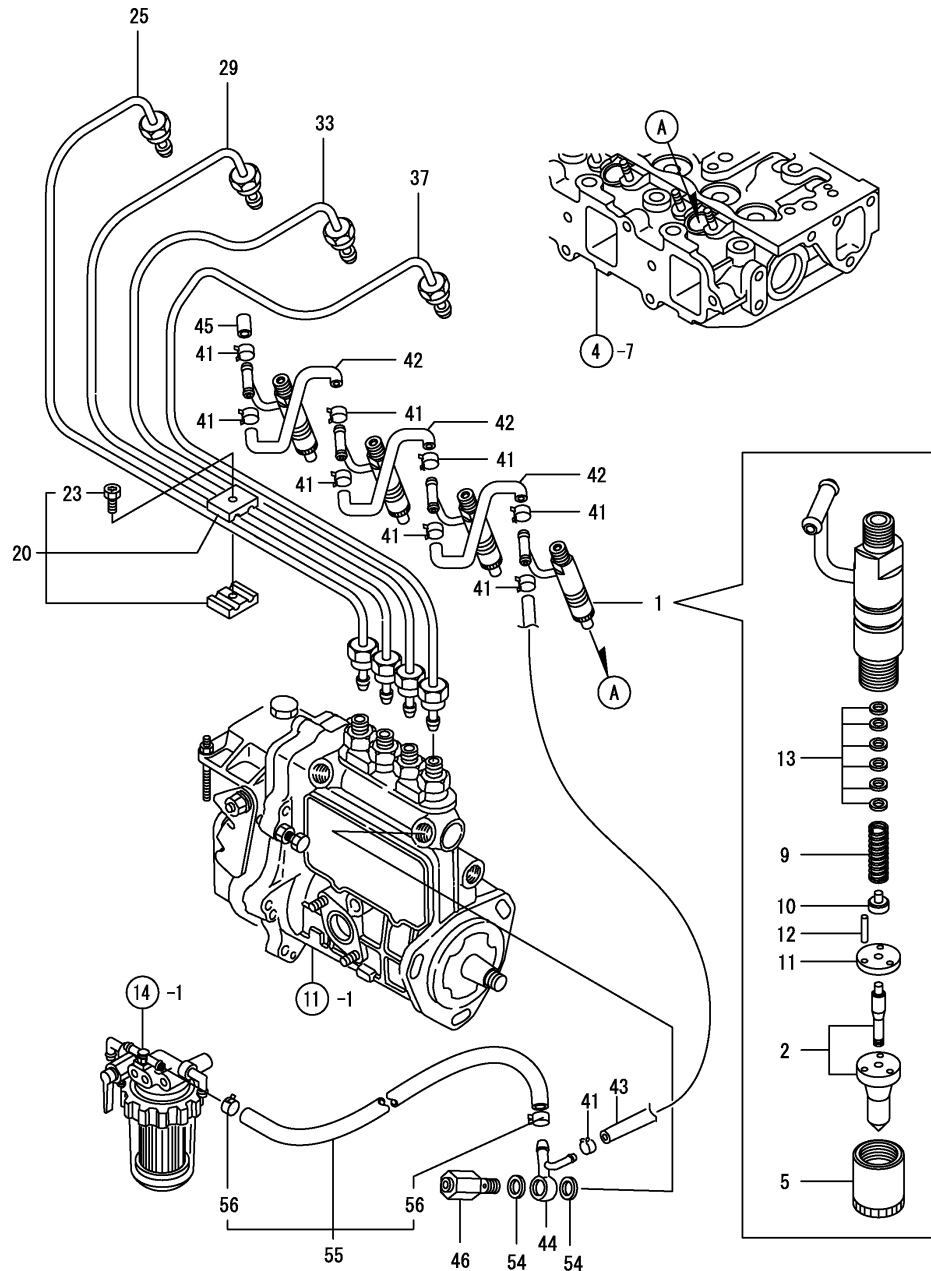
(D)=

(E)=

(F)=

| No.        | Lev. | Parts No.    | Description          | Q'ty |     |     |     |     |     | I | R |
|------------|------|--------------|----------------------|------|-----|-----|-----|-----|-----|---|---|
|            |      |              |                      | (A)  | (B) | (C) | (D) | (E) | (F) |   |   |
| 2          | 2    | 129155-51280 | O-RING, S6           | 1    |     |     |     |     |     |   |   |
| 5          | 2    | 129052-61050 | GASKET               | 1    |     |     |     |     |     |   |   |
| 6          | 2    | 129052-61060 | COVER, GOVERNOR CASE | 1    |     |     |     |     |     |   |   |
| 7          | 2    | 129052-61070 | GASKET               | 1    |     |     |     |     |     |   |   |
| 8          | 2    | 129155-61120 | LINK, L=30 MARK 0    | 1    |     |     |     |     |     |   | 1 |
| 9          | 2    | 129155-61130 | LINK, L=31 MARK 1    | 1    |     |     |     |     |     |   | 1 |
| 10         | 2    | 129155-61140 | LINK, L=30.5 MARK 05 | 1    |     |     |     |     |     |   | 1 |
| 11         | 2    | 129155-61201 | WEIGHT ASSY,GOVERNOR | 1    |     |     |     |     |     |   |   |
| 15         | 2    | 129155-61341 | SLEEVE               | 1    |     |     |     |     |     |   | 2 |
| 16         | 2    | 129100-61400 | SHAFT ASSY           | 1    |     |     |     |     |     |   |   |
| 19         | 2    | 129155-61430 | SPACER               | 1    |     |     |     |     |     |   |   |
| 23         | 2    | 129155-61450 | BOLT, LIMITER        | 1    |     |     |     |     |     |   |   |
| 24         | 2    | 129155-61460 | BOLT, IDLE           | 1    |     |     |     |     |     |   |   |
| 25         | 2    | 129155-61480 | SPACER ASSY          | 2    |     |     |     |     |     |   |   |
| 30         | 2    | 129052-61390 | SHAFT                | 1    |     |     |     |     |     |   |   |
| 31         | 2    | 129052-61500 | LEVER ASSY, GOVERNOR | 1    |     |     |     |     |     |   |   |
| 32         | 3    | 174307-51700 | SHIM SET             | 2    |     |     |     |     |     |   |   |
| 46         | 3    | 129052-61540 | SPRING, SET          | 1    |     |     |     |     |     |   |   |
| 56         | 2    | 119660-61901 | RETAINER, SHAFT      | 1    |     |     |     |     |     |   |   |
| 57         | 2    | 129155-61950 | BOLT                 | 1    |     |     |     |     |     |   |   |
| 58         | 2    | 124550-66370 | NUT, M6              | 1    |     |     |     |     |     |   |   |
| 59         | 2    | 22117-040000 | WASHER, 4            | 1    |     |     |     |     |     |   |   |
| 60         | 2    | 22190-060002 | WASHER, SEAL 6       | 1    |     |     |     |     |     |   |   |
| 61         | 2    | 22190-100002 | WASHER, SEAL 10      | 1    |     |     |     |     |     |   |   |
| 62         | 2    | 22190-120002 | WASHER, SEAL 12      | 2    |     |     |     |     |     |   |   |
| 63         | 2    | 22287-120000 | WASHER, 12           | 1    |     |     |     |     |     |   |   |
| 64         | 2    | 22372-040000 | PIN, SNAP 4          | 2    |     |     |     |     |     |   |   |
| 65         | 2    | 23887-100002 | PLUG, 10             | 1    |     |     |     |     |     |   |   |
| 66         | 2    | 24341-000280 | O-RING, 1AS28.0      | 1    |     |     |     |     |     |   |   |
| 66-1       | 2    | 158552-61900 | O-RING               | 1    |     |     |     |     |     |   | N |
| (A=EXXXXX) |      |              |                      |      |     |     |     |     |     |   |   |
| 67         | 2    | 26106-060102 | BOLT, M6X 10 PLATED  | 1    |     |     |     |     |     |   |   |
| 68         | 2    | 26106-060102 | BOLT, M6X 10 PLATED  | 1    |     |     |     |     |     |   |   |
| 69         | 2    | 26106-060102 | BOLT, M6X 10 PLATED  | 4    |     |     |     |     |     |   |   |
| 70         | 2    | 26106-060142 | BOLT, M6X 14 PLATED  | 2    |     |     |     |     |     |   |   |
| 71         | 2    | 26106-060202 | BOLT, M6X 20 PLATED  | 6    |     |     |     |     |     |   |   |
| 72         | 2    | 26756-060002 | NUT, LOCK M6         | 1    |     |     |     |     |     |   |   |
| 73         | 2    | 26776-120002 | NUT, LOCK M12        | 2    |     |     |     |     |     |   |   |
| 74         | 2    | 26366-080002 | NUT, M8              | 1    |     |     |     |     |     |   |   |
| 75         | 2    | 129100-61440 | LEVER, CONTROL       | 1    |     |     |     |     |     |   |   |
| 76         | 2    | 129100-61650 | SPRING, CONTROLLER   | 1    |     |     |     |     |     |   |   |
| 77         | 2    | 129489-61700 | SPRING, GOVERNOR     | 1    |     |     |     |     |     |   |   |
| 78         | 2    | 119285-77951 | SOLENOID             | 1    |     |     |     |     |     |   |   |
| 79         | 2    | 26687-120002 | NUT, CAP M12         | 1    |     |     |     |     |     |   |   |
| 80         | 2    | 129155-61470 | BOLT, CONTROL        | 1    |     |     |     |     |     |   |   |
| 81         | 2    | 129132-61550 | ANGLEICH ASSY        | 1    |     |     |     |     |     |   |   |
| 105        | 2    | 129155-61350 | SLEEVE, L=24.9       | 1    |     |     |     |     |     |   | 2 |
| 106        | 2    | 129155-61360 | SLEEVE, L=25.2       | 1    |     |     |     |     |     |   | 2 |
| 107        | 2    | 129155-61830 | O-RING, S10          | 1    |     |     |     |     |     |   |   |

Fig.13. FUEL INJECTION VALVE



(A)=4TNE88-TB

(B)=

(C)=

(D)=

(E)=

(F)=

| No. | Lev. | Parts No.    | Description          | Q'ty |     |     |     |     |     | I | R |
|-----|------|--------------|----------------------|------|-----|-----|-----|-----|-----|---|---|
|     |      |              |                      | (A)  | (B) | (C) | (D) | (E) | (F) |   |   |
| 1   | 1    | 729102-53100 | VALVE ASSY,INJECTION | 4    |     |     |     |     |     |   |   |
| 2   | 2    | 129102-53000 | VALVE ASSY,INJECTION | 4    |     |     |     |     |     |   |   |
| 5   | 2    | 114250-53080 | NUT, NOZZLE D16.95   | 4    |     |     |     |     |     |   |   |
| 9   | 2    | 114250-53120 | SPRING, NOZZLE       | 4    |     |     |     |     |     |   |   |
| 10  | 2    | 114250-53130 | SEAT, SPRING         | 4    |     |     |     |     |     |   |   |
| 11  | 2    | 114250-53140 | PLATE                | 4    |     |     |     |     |     |   |   |
| 12  | 2    | 114250-53210 | PIN                  | 8    |     |     |     |     |     |   |   |
| 13  | 2    | 114250-53400 | SHIM SET             | 4    |     |     |     |     |     |   |   |
| 20  | 1    | 119305-59120 | RETAINER, PIPE       | 2    |     |     |     |     |     |   |   |
| 23  | 2    | 129150-59131 | BOLT, M4X14          | 2    |     |     |     |     |     |   |   |
| 25  | 1    | 129407-59940 | PIPE ASSY, INJECTION | 1    |     |     |     |     |     |   |   |
| 29  | 1    | 129612-59831 | PIPE ASSY, INJECTION | 1    |     |     |     |     |     |   |   |
| 33  | 1    | 129407-59920 | PIPE ASSY, INJECTION | 1    |     |     |     |     |     |   |   |
| 37  | 1    | 129407-59910 | PIPE ASSY, INJECTION | 1    |     |     |     |     |     |   |   |
| 41  | 1    | 124066-59100 | CLIP, HOSE 8         | 9    |     |     |     |     |     |   |   |
| 42  | 1    | 121250-59550 | PIPE, FUEL D8X120    | 3    |     |     |     |     |     |   |   |
| 43  | 1    | 119840-59560 | PIPE, FUEL RETURN    | 1    |     |     |     |     |     |   |   |
| 44  | 1    | 119840-59570 | JOINT                | 1    |     |     |     |     |     |   |   |
| 45  | 1    | 129150-59580 | CAP                  | 1    |     |     |     |     |     |   |   |
| 46  | 1    | 129100-59951 | VALVE ASSY, CHECK    | 1    |     |     |     |     |     |   |   |
| 54  | 1    | 23414-120000 | GASKET, 12X1.0       | 2    |     |     |     |     |     |   |   |
| 55  | 1    | 129210-59150 | PIPE ASSY, FUEL      | 1    |     |     |     |     |     |   |   |
| 56  | 2    | 124766-59050 | CLIP, HOSE 12        | 2    |     |     |     |     |     |   |   |

Fig.14. FUEL LINE

(A)=4TNE88-TB

(B)=

(C)=

(D)=

(E)=

(F)=

Qty

| No. | Lev. | Parts No.    | Description          | Qty |     |     |     |     |     | I | R |
|-----|------|--------------|----------------------|-----|-----|-----|-----|-----|-----|---|---|
|     |      |              |                      | (A) | (B) | (C) | (D) | (E) | (F) |   |   |
| 1   | 1    | 129052-55620 | FILTER ASSY, FUEL    | 1   |     |     |     |     |     |   |   |
| 2   | 2    | 104200-55321 | VALVE, TAPER         | 1   |     |     |     |     |     |   |   |
| 3   | 2    | 104200-55330 | SPRING, VALVE        | 1   |     |     |     |     |     |   |   |
| 4   | 2    | 129100-55650 | ELEMENT              | 1   |     |     |     |     |     |   |   |
| 6   | 2    | 129100-55670 | LEVER                | 1   |     |     |     |     |     |   |   |
| 7   | 2    | 129100-55680 | CUP, STRAINER        | 1   |     |     |     |     |     |   |   |
| 8   | 2    | 129100-55690 | RING, RETAINING      | 1   |     |     |     |     |     |   |   |
| 9   | 2    | 129100-55700 | SPRING               | 1   |     |     |     |     |     |   |   |
| 10  | 2    | 104200-55750 | SCREW, M4            | 1   |     |     |     |     |     |   |   |
| 11  | 2    | 24311-000160 | O-RING, 1AP16.0      | 1   |     |     |     |     |     |   |   |
| 12  | 2    | 24311-240100 | O-RING, 1AP10A       | 1   |     |     |     |     |     |   |   |
| 13  | 2    | 24321-000650 | O-RING, 1AG65.0      | 1   |     |     |     |     |     |   |   |
| 14  | 1    | 26014-080702 | BOLT, M8X 70         | 1   |     |     |     |     |     |   |   |
| 15  | 1    | 103854-39140 | BOLT, PIPE JOINT     | 1   |     |     |     |     |     |   |   |
| 16  | 1    | 101304-59020 | JOINT, PIPE 12       | 1   |     |     |     |     |     |   |   |
| 17  | 1    | 129210-59040 | PIPE ASSY, FUEL      | 1   |     |     |     |     |     |   |   |
| 18  | 2    | 124766-59050 | CLIP, HOSE 12        | 2   |     |     |     |     |     |   |   |
| 20  | 1    | 22190-120002 | WASHER, SEAL 12      | 2   |     |     |     |     |     |   |   |
| 21  | 1    | 129335-55700 | SEPARATOR ASSY,WATER | 1   |     |     |     |     |     |   |   |
| 22  | 2    | 104200-55321 | VALVE, TAPER         | 1   |     |     |     |     |     |   |   |
| 23  | 2    | 104200-55330 | SPRING, VALVE        | 1   |     |     |     |     |     |   |   |
| 24  | 2    | 104200-55341 | HANDLE               | 1   |     |     |     |     |     |   |   |
| 25  | 2    | 124064-55510 | COVER                | 1   |     |     |     |     |     |   |   |
| 26  | 2    | 102103-55520 | O-RING               | 1   |     |     |     |     |     |   |   |
| 27  | 2    | 110250-55610 | RING, RETAINING      | 1   |     |     |     |     |     |   |   |
| 28  | 2    | 121257-55720 | SPRING               | 1   |     |     |     |     |     |   |   |
| 29  | 2    | 121257-55731 | FLOAT                | 1   |     |     |     |     |     |   |   |
| 31  | 2    | 101720-55750 | PLUG, 6              | 2   |     |     |     |     |     |   |   |
| 32  | 2    | 104200-55750 | SCREW, M4            | 1   |     |     |     |     |     |   |   |
| 33  | 2    | 171081-55910 | SCREEN               | 1   |     |     |     |     |     |   |   |
| 34  | 2    | 23418-060000 | GASKET, 6X1.0        | 2   |     |     |     |     |     |   |   |
| 35  | 2    | 24311-240100 | O-RING, 1AP10A       | 1   |     |     |     |     |     |   |   |
| 36  | 1    | 129322-77401 | PUMP ASSY, FUEL FEED | 1   |     |     |     |     |     |   |   |
| 37  | 1    | 124066-59100 | CLIP, HOSE 8         | 1   |     |     |     |     |     |   |   |
| 38  | 1    | 129150-59580 | CAP                  | 1   |     |     |     |     |     |   |   |
| 39  | 1    | 119840-59601 | BEND                 | 1   |     |     |     |     |     |   |   |
| 40  | 2    | 124766-59050 | CLIP, HOSE 12        | 2   |     |     |     |     |     |   |   |
| 42  | 2    | 119840-59621 | JOINT                | 1   |     |     |     |     |     |   |   |

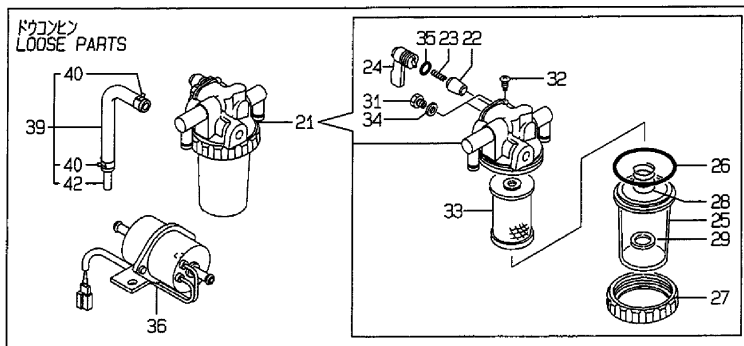
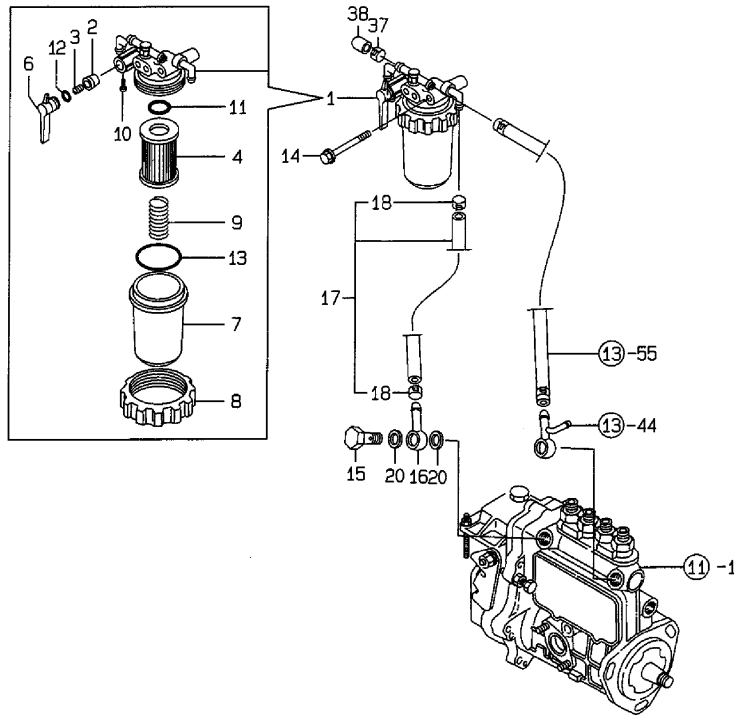
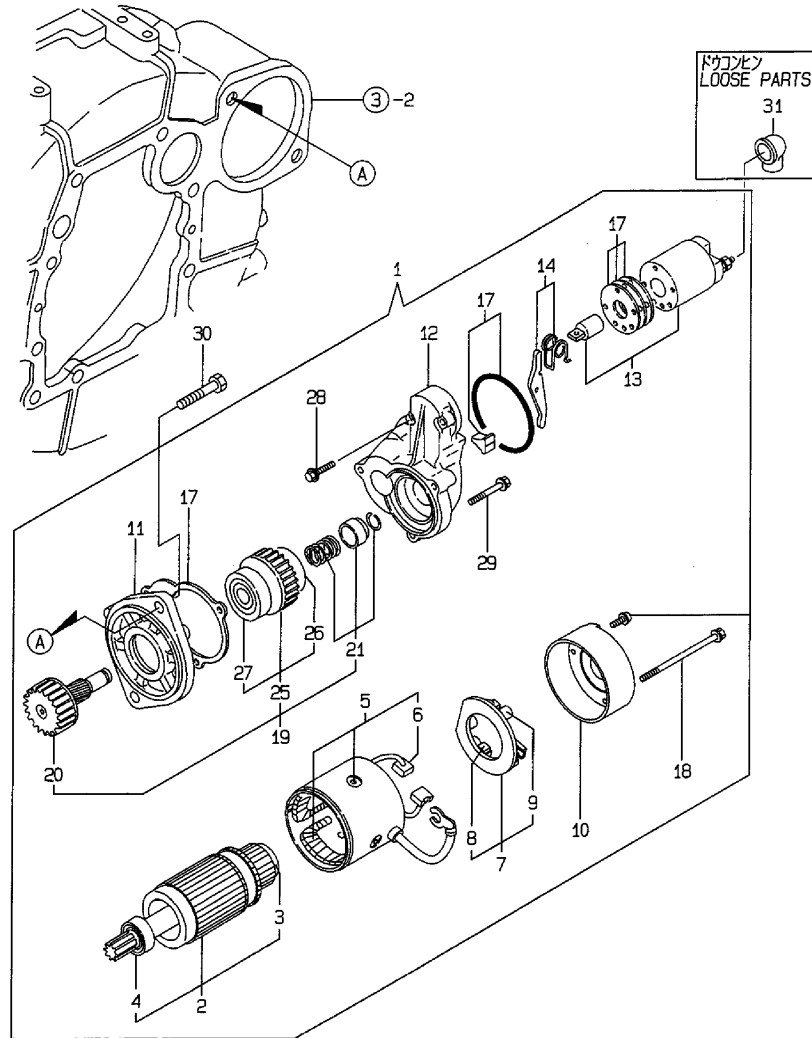


Fig.15. STARTING MOTOR



(A)=4TNE88-TB

(B)=

(C)=

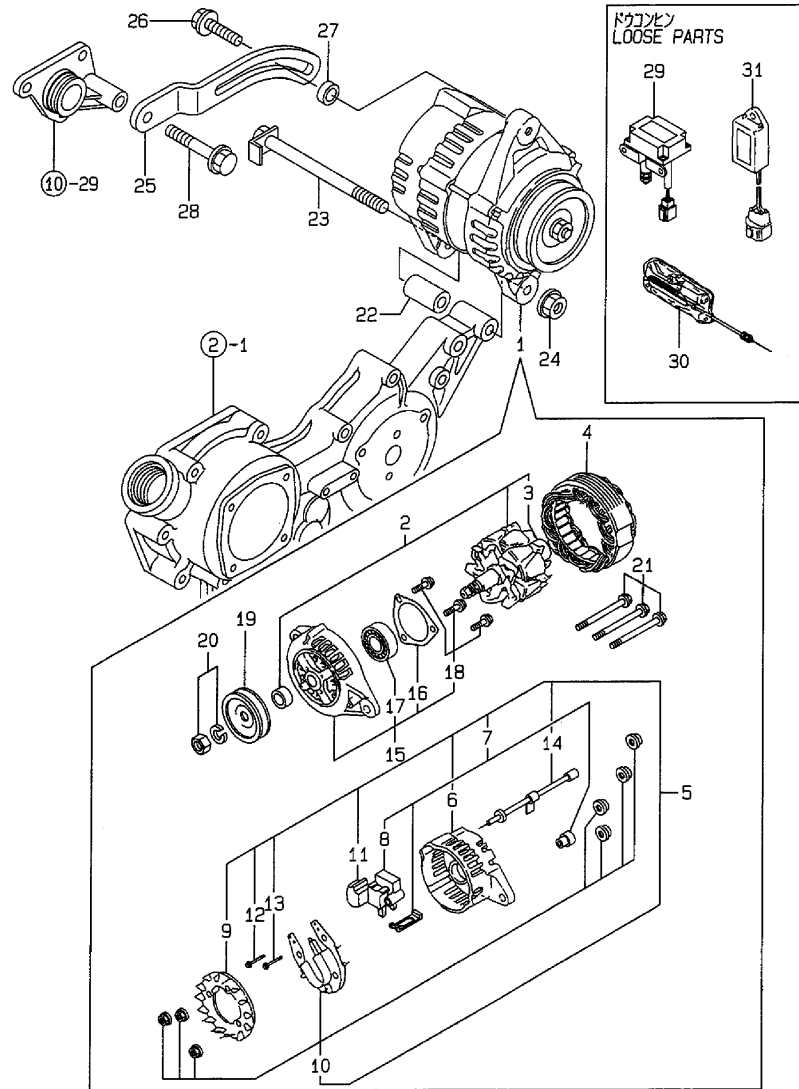
(D)=

(E)=

(F)=

| No. | Lev. | Parts No.    | Description            | Q'ty |     |     |     |     |     | I | R |
|-----|------|--------------|------------------------|------|-----|-----|-----|-----|-----|---|---|
|     |      |              |                        | (A)  | (B) | (C) | (D) | (E) | (F) |   |   |
| 1   | 1    | 129400-77012 | STARTING MOTOR         | 1    |     |     |     |     |     |   |   |
| 2   | 2    | 129486-77400 | ARMATUER               | 1    |     |     |     |     |     |   |   |
| 3   | 3    | 171008-77410 | BEARING(1)             | 1    |     |     |     |     |     |   |   |
| 4   | 3    | 171008-77420 | BEARING(2)             | 1    |     |     |     |     |     |   |   |
| 5   | 2    | 129400-77441 | COIL ASSY, FIELD       | 1    |     |     |     |     |     |   |   |
| 6   | 3    | 129486-77460 | BRUSH                  | 2    |     |     |     |     |     |   |   |
| 7   | 2    | 129486-77470 | HOLDER ASSY, BRUSH     | 1    |     |     |     |     |     |   |   |
| 8   | 3    | 129486-77460 | BRUSH                  | 2    |     |     |     |     |     |   |   |
| 9   | 3    | 129486-77490 | SPRING, START BRUSH    | 4    |     |     |     |     |     |   |   |
| 10  | 2    | 129900-77460 | COVER, REAR            | 1    |     |     |     |     |     |   |   |
| 11  | 2    | 171008-77510 | HOUSING ASSY, GEAR     | 1    |     |     |     |     |     |   |   |
| 12  | 2    | 129400-77520 | HOUSING, CENTER        | 1    |     |     |     |     |     |   |   |
| 13  | 2    | 129400-77531 | SWITCH ASSY, MAGNETIC  | 1    |     |     |     |     |     |   |   |
| 14  | 2    | 171008-77540 | LEVER SET, SHIFT       | 1    |     |     |     |     |     |   |   |
| 17  | 2    | 129400-77571 | DUST COVER, (NON-ASB.) | 1    |     |     |     |     |     |   |   |
| 18  | 2    | 129900-77640 | BOLT, THROUGH          | 2    |     |     |     |     |     |   |   |
| 19  | 2    | 171008-77650 | PINION ASSY            | 1    |     |     |     |     |     |   |   |
| 20  | 3    | 171008-77660 | SHAFT, PINION          | 1    |     |     |     |     |     |   |   |
| 21  | 3    | 171008-77670 | STOPPER SET, PINION    | 1    |     |     |     |     |     |   |   |
| 25  | 3    | X2114555500  | CLUTCH ASSY            | 1    |     |     |     |     |     |   |   |
| 26  | 4    | X2114955020  | BALL BEARING           | 1    |     |     |     |     |     |   |   |
| 27  | 4    | X2240410100  | BEARING, BALL          | 1    |     |     |     |     |     |   |   |
| 28  | 2    | 26106-060322 | BOLT, M6X 32 PLATED    | 2    |     |     |     |     |     |   |   |
| 29  | 2    | 26106-060402 | BOLT, M6X 40 PLATED    | 3    |     |     |     |     |     |   |   |
| 30  | 1    | 26116-120252 | BOLT, M12X 25 PLATED   | 2    |     |     |     |     |     |   |   |
| 31  | 1    | 124550-77030 | COVER, TERMINAL        | 1    |     |     |     |     |     |   |   |

Fig.16. GENERATOR



(A)=4TNE88-TB

(B)=

(C)=

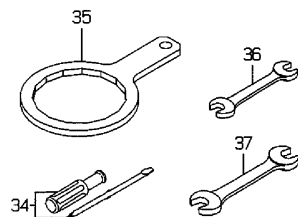
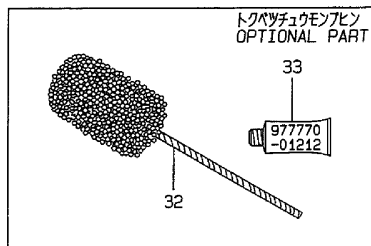
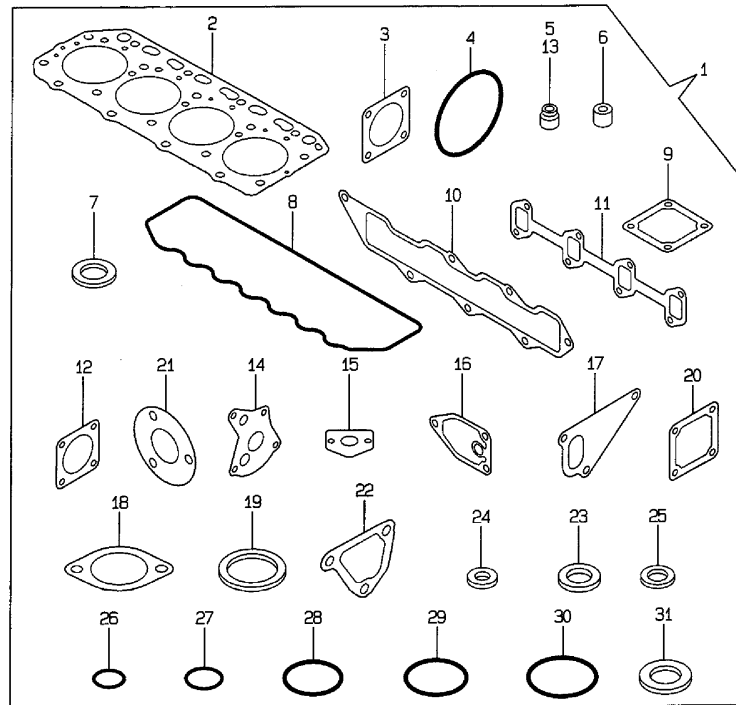
(D)=

(E)=

(F)=

| No. | Lev. | Parts No.    | Description          | Q'ty |     |     |     |     |     | I | R |
|-----|------|--------------|----------------------|------|-----|-----|-----|-----|-----|---|---|
|     |      |              |                      | (A)  | (B) | (C) | (D) | (E) | (F) |   |   |
| 1   | 1    | 119836-77200 | GENERATOR            | 1    |     |     |     |     |     |   |   |
| 2   | 2    | 119836-77700 | ROTOR ASSY           | 1    |     |     |     |     |     |   |   |
| 3   | 3    | 119836-77850 | BALL BEARING         | 1    |     |     |     |     |     |   |   |
| 4   | 2    | 119836-77710 | STATOR ASSY          | 1    |     |     |     |     |     |   |   |
| 5   | 2    | 119836-77721 | COVER ASSY, REAR     | 1    |     |     |     |     |     |   |   |
| 6   | 3    | 119836-77730 | COVER, REAR          | 1    |     |     |     |     |     |   |   |
| 7   | 3    | 119836-77741 | BRUSH ASSY,REGULATOR | 1    |     |     |     |     |     |   |   |
| 8   | 4    | 119836-77750 | BRUSH ASSY           | 1    |     |     |     |     |     |   |   |
| 9   | 3    | 119836-77760 | GUIDE, FAN SIDE      | 1    |     |     |     |     |     |   |   |
| 10  | 3    | 119836-77770 | DIODE ASSY           | 1    |     |     |     |     |     |   |   |
| 11  | 3    | 119836-77780 | CONDENSER            | 1    |     |     |     |     |     |   |   |
| 12  | 3    | 119836-77871 | BOLT (1)             | 1    |     |     |     |     |     |   |   |
| 13  | 3    | 119836-77880 | BOLT (2)             | 1    |     |     |     |     |     |   |   |
| 14  | 3    | 119836-77890 | WIRE ASSY, LEAD      | 1    |     |     |     |     |     |   |   |
| 15  | 2    | 119836-77790 | COVER ASSY, FRONT    | 1    |     |     |     |     |     |   |   |
| 16  | 3    | 119836-77800 | RETAINER, BEARING    | 1    |     |     |     |     |     |   |   |
| 17  | 3    | 119836-77840 | BALL BEARING         | 1    |     |     |     |     |     |   |   |
| 18  | 3    | 119836-77860 | SCREW KID            | 1    |     |     |     |     |     |   |   |
| 19  | 2    | 119836-77810 | PULLEY               | 1    |     |     |     |     |     |   |   |
| 20  | 2    | 119836-77820 | NUT ASSY, PULLEY     | 1    |     |     |     |     |     |   |   |
| 21  | 2    | 119836-77830 | BOLT, THROUGH        | 1    |     |     |     |     |     |   |   |
| 22  | 1    | 119820-77340 | PIECE, DISTANCE      | 1    |     |     |     |     |     |   |   |
| 23  | 1    | 129136-77251 | BOLT, M8X110         | 1    |     |     |     |     |     |   |   |
| 24  | 1    | 26366-080002 | NUT, M8              | 1    |     |     |     |     |     |   |   |
| 25  | 1    | 129136-77350 | ADJUSTER             | 1    |     |     |     |     |     |   |   |
| 26  | 1    | 26014-060352 | BOLT, M6X 35         | 1    |     |     |     |     |     |   |   |
| 27  | 1    | 106500-44810 | SPACER               | 1    |     |     |     |     |     |   |   |
| 28  | 1    | 26106-080502 | BOLT, M8X 50 PLATED  | 1    |     |     |     |     |     |   |   |
| 29  | 1    | 129136-77100 | RELAY, SAFETY        | 1    |     |     |     |     |     |   |   |
| 30  | 1    | 114654-77900 | STOPPER ASSY         | 1    |     |     |     |     |     |   |   |
| 31  | 1    | 119632-77920 | TIMER                | 1    |     |     |     |     |     |   |   |

Fig.17. GASKET SET



| No. | Lev. | Parts No.    | Description        | Q'ty |     |     |     |     |     | I | R |
|-----|------|--------------|--------------------|------|-----|-----|-----|-----|-----|---|---|
|     |      |              |                    | (A)  | (B) | (C) | (D) | (E) | (F) |   |   |
| 1   | 1    | 729407-92640 | GASKET SET         | 1    |     |     |     |     |     |   | 1 |
| 2   | 2    | 129407-01340 | GASKET, HEAD       | 1    |     |     |     |     |     |   |   |
| 3   | 2    | 124240-01883 | GASKET             | 1    |     |     |     |     |     |   |   |
| 4   | 2    | 121850-51960 | O-RING             | 1    |     |     |     |     |     |   |   |
| 5   | 2    | 124460-11340 | SEAL, VALVE STEM   | 4    |     |     |     |     |     |   |   |
| 6   | 2    | 119625-11870 | PROTECTOR, NOZZLE  | 4    |     |     |     |     |     |   |   |
| 7   | 2    | 119625-11880 | SEAT, NOZZLE       | 4    |     |     |     |     |     |   |   |
| 8   | 2    | 129550-11310 | GASKET, BONNET     | 1    |     |     |     |     |     |   |   |
| 9   | 2    | 129150-77511 | GASKET             | 1    |     |     |     |     |     |   |   |
| 10  | 2    | 129407-12110 | GASKET, MANIFOLD   | 1    |     |     |     |     |     |   |   |
| 11  | 2    | 129550-13110 | GASKET             | 1    |     |     |     |     |     |   |   |
| 12  | 2    | 129400-13201 | GASKET, SILENCER   | 1    |     |     |     |     |     |   |   |
| 13  | 2    | 121400-11340 | SEAL, VALVE STEM   | 4    |     |     |     |     |     |   |   |
| 14  | 2    | 129150-32020 | GASKET, PUMP       | 1    |     |     |     |     |     |   |   |
| 15  | 2    | 129150-35041 | GASKET             | 1    |     |     |     |     |     |   |   |
| 16  | 2    | 129150-35111 | GASKET             | 1    |     |     |     |     |     |   |   |
| 17  | 2    | 129100-42020 | GASKET, WATER PUMP | 1    |     |     |     |     |     |   |   |
| 18  | 2    | 129795-49551 | GASKET             | 1    |     |     |     |     |     |   |   |
| 19  | 2    | 129150-49811 | GASKET, THERMOSTAT | 1    |     |     |     |     |     |   |   |
| 20  | 2    | 129100-77510 | GASKET, AIR HEATER | 1    |     |     |     |     |     |   |   |
| 21  | 2    | 103954-13201 | GASKET, SILENCER   | 1    |     |     |     |     |     |   |   |
| 22  | 2    | 129100-49840 | GASKET             | 1    |     |     |     |     |     |   |   |
| 23  | 2    | 129155-52050 | GASKET             | 1    |     |     |     |     |     |   |   |
| 24  | 2    | 22190-080002 | WASHER, SEAL 6     | 6    |     |     |     |     |     |   |   |
| 25  | 2    | 23414-100000 | GASKET, 10X1.0     | 2    |     |     |     |     |     |   |   |
| 26  | 2    | 24311-000120 | O-RING, 1AP12.0    | 3    |     |     |     |     |     |   |   |
| 27  | 2    | 24311-000160 | O-RING, 1AP16.0    | 3    |     |     |     |     |     |   |   |
| 28  | 2    | 24311-000320 | O-RING, 1AP32.0    | 3    |     |     |     |     |     |   |   |
| 29  | 2    | 24341-000240 | O-RING, 1AS24.0    | 1    |     |     |     |     |     |   |   |
| 30  | 2    | 24341-000500 | O-RING, 1AS50.0    | 1    |     |     |     |     |     |   |   |
| 31  | 2    | 22190-220002 | WASHER, SEAL 22    | 1    |     |     |     |     |     |   |   |
| 32  | 1    | 129400-92420 | FLEX HORN          | 1    |     |     |     |     |     |   | 1 |
| 33  | 1    | 977770-01212 | GASKET, LIQUID     | 1    |     |     |     |     |     |   | 1 |
| 34  | 1    | 104200-92350 | DRIVER, SCREW      | 1    |     |     |     |     |     |   |   |
| 35  | 1    | 119640-92750 | WRENCH, FILTER 80  | 1    |     |     |     |     |     |   |   |
| 36  | 1    | 28110-100120 | SPANNER, 10X12     | 1    |     |     |     |     |     |   |   |
| 37  | 1    | 28110-140170 | SPANNER, 14X17     | 1    |     |     |     |     |     |   |   |

Remarks  
(1) OPTIONAL PART.

## Parts No. Index

| Parts No.    | Fig. No. | Ref. No. |
|--------------|----------|----------|
| 101304-59020 | 14       | 16       |
| 101720-55750 | 14       | 31       |
| 102103-55520 | 14       | 26       |
| 103854-39140 | 14       | 15       |
| 103954-13201 | 6        | 20       |
|              | 17       | 21       |
| 104200-55321 | 14       | 2        |
|              |          | 22       |
| 104200-55330 | 14       | 3        |
|              |          | 23       |
| 104200-55341 | 14       | 24       |
| 104200-55750 | 14       | 10       |
|              |          | 32       |
| 104200-92350 | 17       | 34       |
| 106500-44810 | 16       | 27       |
| 110250-55610 | 14       | 27       |
| 114250-53080 | 13       | 5        |
| 114250-53120 | 13       | 9        |
| 114250-53130 | 13       | 10       |
| 114250-53140 | 13       | 11       |
| 114250-53210 | 13       | 12       |
| 114250-53400 | 13       | 13       |
| 114654-77900 | 16       | 30       |
| 119032-44502 | 10       | 48       |
| 119032-44550 | 10       | 49       |
| 119032-44591 | 10       | 50       |
| 119131-18320 | 6        | 5        |
| 119140-12680 | 5        | 27       |
| 119266-49350 | 10       | 32       |
| 119285-77951 | 12       | 78       |
| 119305-59120 | 13       | 20       |
| 119620-01750 | 3        | 3        |
| 119625-11870 | 4        | 29       |
|              | 17       | 6        |
| 119625-11880 | 4        | 28       |
|              | 17       | 7        |
| 119625-11900 | 4        | 27       |
| 119632-77920 | 16       | 31       |
| 119640-01640 | 3        | 7        |
| 119640-92750 | 17       | 35       |
| 119660-61901 | 12       | 56       |
| 119808-12540 | 5        | 26       |
| 119820-77340 | 16       | 22       |
| 119836-77200 | 16       | 1        |
| 119836-77700 | 16       | 2        |
| 119836-77710 | 16       | 4        |
| 119836-77721 | 16       | 5        |
| 119836-77730 | 16       | 6        |
| 119836-77741 | 16       | 7        |
| 119836-77750 | 16       | 8        |

| Parts No.    | Fig. No. | Ref. No. |
|--------------|----------|----------|
| 119836-77760 | 16       | 9        |
| 119836-77770 | 16       | 10       |
| 119836-77780 | 16       | 11       |
| 119836-77790 | 16       | 15       |
| 119836-77800 | 16       | 16       |
| 119836-77810 | 16       | 19       |
| 119836-77820 | 16       | 20       |
| 119836-77830 | 16       | 21       |
| 119836-77840 | 16       | 17       |
| 119836-77850 | 16       | 3        |
| 119836-77860 | 16       | 18       |
| 119836-77871 | 16       | 12       |
| 119836-77880 | 16       | 13       |
| 119836-77890 | 16       | 14       |
| 119840-59560 | 13       | 43       |
| 119840-59570 | 13       | 44       |
| 119840-59601 | 14       | 39       |
| 119840-59621 | 14       | 42       |
| 119865-21600 | 8        | 16       |
| 119866-12530 | 5        | 25       |
| 119869-12220 | 5        | 18       |
| 119910-12210 | 5        | 6        |
| 119910-12560 | 5        | 7        |
| 120130-11860 | 4        | 11       |
| 121023-01550 | 2        | 25       |
| 121111-21501 | 8        | 12       |
| 121120-13590 | 6        | 9        |
| 121250-44901 | 10       | 26       |
| 121250-59550 | 13       | 42       |
| 121256-44600 | 10       | 41       |
| 121257-55720 | 14       | 28       |
| 121257-55731 | 14       | 29       |
| 121267-44760 | 10       | 18       |
| 121400-11340 | 4        | 22       |
|              | 17       | 13       |
| 121450-01560 | 2        | 6        |
| 121450-44531 | 10       | 36       |
| 121470-44581 | 10       | 38       |
| 121520-34810 | 9        | 39       |
| 121550-23200 | 8        | 30       |
| 121750-49110 | 10       | 1        |
| 121850-21680 | 8        | 11       |
| 121850-51960 | 2        | 12       |
|              | 17       | 4        |
| 122117-51560 | 11       | 51       |
| 122710-51090 | 11       | 11       |
| 124064-55510 | 14       | 25       |
| 124066-59100 | 13       | 41       |
|              | 14       | 37       |
| 124160-01751 | 2        | 7        |

| Parts No.    | Fig. No. | Ref. No. |
|--------------|----------|----------|
| 124160-01751 | 4        | 46       |
| 124160-01910 | 1        | 5        |
|              |          | 6        |
| 124160-11360 | 4        | 56       |
| 124160-39140 | 9        | 30       |
| 124160-39451 | 9        | 29       |
| 124240-01871 | 2        | 8        |
| 124240-01883 | 2        | 9        |
|              | 17       | 3        |
| 124450-44550 | 10       | 40       |
| 124450-44560 | 10       | 37       |
| 124460-11340 | 4        | 23       |
|              | 17       | 5        |
| 124465-44950 | 10       | 27       |
| 124550-51350 | 11       | 33       |
| 124550-51370 | 11       | 34       |
| 124550-59820 | 9        | 35       |
| 124550-66370 | 12       | 58       |
| 124550-77030 | 15       | 31       |
| 124736-07900 | 4        | 5        |
| 124766-59050 | 13       | 56       |
|              | 14       | 18       |
|              |          | 40       |
| 124950-51190 | 11       | 18       |
| 129001-02800 | 1        | 16       |
| 129001-22081 | 8        | 17       |
| 129001-22500 | 8        | 19       |
| 129001-22901 | 8        | 33       |
| 129001-22950 | 8        | 35       |
| 129001-35300 | 9        | 25       |
| 129001-42002 | 10       | 2        |
| 129001-42040 | 10       | 29       |
| 129001-91840 | 2        | 21       |
| 129052-55620 | 14       | 1        |
| 129052-61050 | 12       | 5        |
| 129052-61060 | 12       | 6        |
| 129052-61070 | 12       | 7        |
| 129052-61390 | 12       | 30       |
| 129052-61500 | 12       | 31       |
| 129052-61540 | 12       | 46       |
| 129100-01580 | 3        | 1        |
|              |          | 15       |
|              | 8        | 2        |
| 129100-01640 | 3        | 16       |
| 129100-11100 | 4        | 17       |
| 129100-11110 | 4        | 18       |
| 129100-11650 | 4        | 37       |
| 129100-23910 | 8        | 29       |
| 129100-25061 | 7        | 9        |
| 129100-42020 | 10       | 33       |

| Parts No.    | Fig. No. | Ref. No. |
|--------------|----------|----------|
| 129100-42020 | 17       | 17       |
| 129100-49840 | 10       | 24       |
|              | 17       | 22       |
| 129100-51300 | 11       | 28       |
| 129100-52200 | 11       | 96       |
| 129100-55650 | 14       | 4        |
| 129100-55670 | 14       | 6        |
| 129100-55680 | 14       | 7        |
| 129100-55690 | 14       | 8        |
| 129100-55700 | 14       | 9        |
| 129100-59951 | 13       | 46       |
| 129100-61400 | 12       | 16       |
| 129100-61440 | 12       | 75       |
| 129100-61650 | 12       | 76       |
| 129100-77500 | 5        | 11       |
| 129100-77510 | 5        | 12       |
|              | 17       | 20       |
| 129102-53000 | 13       | 2        |
| 129132-12210 | 5        | 17       |
| 129132-61550 | 12       | 81       |
| 129136-77100 | 16       | 29       |
| 129136-77251 | 16       | 23       |
| 129136-77350 | 16       | 25       |
| 129150-01200 | 1        | 30       |
| 129150-02020 | 1        | 8        |
| 129150-02450 | 7        | 4        |
| 129150-02870 | 1        | 32       |
| 129150-02930 | 1        | 25       |
| 129150-02940 | 1        | 35       |
| 129150-03020 | 4        | 47       |
| 129150-03070 | 4        | 48       |
| 129150-03080 | 4        | 49       |
| 129150-03100 | 2        | 11       |
| 129150-11230 | 4        | 38       |
| 129150-11280 | 4        | 33       |
| 129150-11370 | 4        | 24       |
| 129150-11750 | 4        | 40       |
| 129150-11810 | 4        | 13       |
| 129150-14101 | 7        | 7        |
| 129150-14200 | 7        | 1        |
| 129150-14400 | 7        | 2        |
| 129150-21200 | 8        | 5        |
| 129150-23600 | 8        | 31       |
| 129150-23610 | 8        | 39       |
| 129150-25101 | 7        | 10       |
| 129150-25900 | 7        | 15       |
| 129150-25920 | 7        | 13       |
| 129150-32020 | 9        | 14       |
|              | 17       | 14       |
| 129150-35041 | 9        | 16       |

## Parts No. Index

| Parts No.    | Fig. No. | Ref. No. |
|--------------|----------|----------|
| 129150-35041 | 17       | 15       |
| 129150-35091 | 9        | 17       |
| 129150-35101 | 9        | 22       |
| 129150-35111 | 9        | 23       |
|              | 17       | 16       |
| 129150-35151 | 9        | 24       |
| 129150-35350 | 9        | 26       |
| 129150-49080 | 10       | 44       |
| 129150-49100 | 10       | 43       |
| 129150-49360 | 10       | 28       |
| 129150-49811 | 10       | 23       |
|              | 17       | 19       |
| 129150-59131 | 13       | 23       |
| 129150-59580 | 13       | 45       |
|              | 14       | 38       |
| 129150-77511 | 5        | 13       |
|              | 17       | 9        |
| 129155-11260 | 4        | 31       |
| 129155-11270 | 4        | 32       |
| 129155-49800 | 10       | 22       |
| 129155-51020 | 11       | 6        |
| 129155-51050 | 11       | 9        |
| 129155-51060 | 11       | 10       |
| 129155-51140 | 11       | 15       |
| 129155-51180 | 11       | 17       |
| 129155-51200 | 11       | 19       |
| 129155-51270 | 11       | 26       |
| 129155-51280 | 11       | 27       |
|              | 12       | 2        |
| 129155-51320 | 11       | 31       |
| 129155-51340 | 11       | 32       |
| 129155-51370 | 11       | 35       |
| 129155-51380 | 11       | 36       |
| 129155-51390 | 11       | 37       |
| 129155-51410 | 11       | 39       |
| 129155-51420 | 11       | 40       |
| 129155-51450 | 11       | 41       |
| 129155-51521 | 11       | 47       |
| 129155-51530 | 11       | 48       |
| 129155-51540 | 11       | 49       |
| 129155-51550 | 11       | 50       |
| 129155-51570 | 11       | 53       |
| 129155-51580 | 11       | 54       |
| 129155-51591 | 11       | 55       |
| 129155-51600 | 11       | 56       |
| 129155-51790 | 11       | 79       |
| 129155-51930 | 11       | 81       |
| 129155-51940 | 11       | 82       |
| 129155-52050 | 11       | 95       |
|              | 17       | 23       |

| Parts No.    | Fig. No. | Ref. No. |
|--------------|----------|----------|
| 129155-61120 | 12       | 8        |
| 129155-61130 | 12       | 9        |
| 129155-61140 | 12       | 10       |
| 129155-61201 | 12       | 11       |
| 129155-61341 | 12       | 15       |
| 129155-61350 | 12       | 105      |
| 129155-61360 | 12       | 106      |
| 129155-61430 | 12       | 19       |
| 129155-61450 | 12       | 23       |
| 129155-61460 | 12       | 24       |
| 129155-61470 | 12       | 80       |
| 129155-61480 | 12       | 25       |
| 129155-61830 | 12       | 107      |
| 129155-61950 | 12       | 57       |
| 129156-51910 | 11       | 80       |
| 129202-22300 | 8        | 23       |
| 129210-59040 | 14       | 17       |
| 129210-59150 | 13       | 55       |
| 129322-77401 | 14       | 36       |
| 129335-55700 | 14       | 21       |
| 129350-49560 | 10       | 20       |
| 129400-01520 | 2        | 5        |
| 129400-01730 | 3        | 10       |
| 129400-11350 | 4        | 45       |
| 129400-13201 | 6        | 7        |
|              | 17       | 12       |
| 129400-77012 | 15       | 1        |
| 129400-77441 | 15       | 5        |
| 129400-77520 | 15       | 12       |
| 129400-77531 | 15       | 13       |
| 129400-77571 | 15       | 17       |
| 129400-92420 | 17       | 32       |
| 129402-13101 | 6        | 1        |
| 129403-42380 | 10       | 16       |
| 129407-01340 | 1        | 31       |
|              | 17       | 2        |
| 129407-11700 | 4        | 7        |
| 129407-12100 | 5        | 1        |
| 129407-12110 | 5        | 3        |
|              | 17       | 10       |
| 129407-21000 | 8        | 1        |
| 129407-32000 | 9        | 1        |
| 129407-59910 | 13       | 37       |
| 129407-59920 | 13       | 33       |
| 129407-59940 | 13       | 25       |
| 129436-44740 | 10       | 17       |
| 129466-21650 | 8        | 9        |
| 129470-51040 | 11       | 7        |
| 129486-01670 | 3        | 19       |
| 129486-77400 | 15       | 2        |

| Parts No.    | Fig. No. | Ref. No. |
|--------------|----------|----------|
| 129486-77460 | 15       | 6        |
|              |          | 8        |
| 129486-77470 | 15       | 7        |
| 129486-77490 | 15       | 9        |
| 129489-61700 | 12       | 77       |
| 129500-11240 | 4        | 30       |
| 129506-51100 | 11       | 12       |
| 129550-11290 | 4        | 34       |
| 129550-11310 | 4        | 52       |
|              | 17       | 8        |
| 129550-13110 | 6        | 2        |
|              | 17       | 11       |
| 129550-39450 | 9        | 31       |
| 129555-51400 | 11       | 38       |
| 129555-51500 | 11       | 46       |
| 129555-51700 | 11       | 75       |
| 129555-51710 | 11       | 76       |
| 129555-51750 | 11       | 77       |
| 129555-51760 | 11       | 78       |
| 129612-01600 | 3        | 2        |
| 129612-12550 | 5        | 24       |
| 129612-12560 | 5        | 21       |
| 129612-12680 | 5        | 20       |
| 129612-12690 | 5        | 23       |
| 129612-13590 | 6        | 8        |
| 129612-13680 | 6        | 16       |
| 129612-21570 | 8        | 13       |
| 129612-49010 | 10       | 52       |
| 129612-49020 | 10       | 53       |
| 129612-59831 | 13       | 29       |
| 129795-01780 | 3        | 18       |
| 129795-01800 | 2        | 4        |
| 129795-01950 | 2        | 10       |
| 129795-02411 | 1        | 28       |
| 129795-11120 | 4        | 19       |
| 129795-11180 | 4        | 20       |
| 129795-21661 | 8        | 10       |
| 129795-49551 | 10       | 21       |
|              | 17       | 18       |
| 129900-77460 | 15       | 10       |
| 129900-77640 | 15       | 18       |
| 158552-61900 | 12       | 66 -1    |
| 171008-77410 | 15       | 3        |
| 171008-77420 | 15       | 4        |
| 171008-77510 | 15       | 11       |
| 171008-77540 | 15       | 14       |
| 171008-77650 | 15       | 19       |
| 171008-77660 | 15       | 20       |
| 171008-77670 | 15       | 21       |
| 171031-11741 | 2        | 29       |

| Parts No.    | Fig. No. | Ref. No. |
|--------------|----------|----------|
| 171051-01921 | 1        | 7        |
| 171064-44510 | 10       | 34       |
| 171081-55910 | 14       | 33       |
| 171091-13670 | 6        | 15       |
| 171091-44900 | 10       | 51       |
| 171340-77520 | 5        | 14       |
| 171350-03090 | 4        | 1        |
| 171420-34800 | 9        | 38       |
| 174307-51170 | 11       | 16       |
| 174307-51560 | 11       | 52       |
| 174307-51700 | 12       | 32       |
| 22117-040000 | 12       | 59       |
| 22137-100000 | 6        | 11       |
| 22190-060002 | 12       | 60       |
| 22190-080002 | 2        | 23       |
|              |          | 24       |
|              | 9        | 36       |
|              | 17       | 24       |
| 22190-100002 | 12       | 61       |
| 22190-120002 | 12       | 62       |
|              | 14       | 20       |
| 22190-160002 | 11       | 83       |
| 22190-220002 | 3        | 9        |
|              | 17       | 31       |
| 22217-050000 | 11       | 84       |
| 22217-060000 | 11       | 85       |
| 22217-100000 | 6        | 12       |
| 22217-120000 | 7        | 16       |
| 22252-000260 | 8        | 24       |
| 22287-120000 | 12       | 63       |
| 22351-040010 | 8        | 8        |
| 22351-050010 | 11       | 86       |
| 22351-060012 | 4        | 25       |
| 22372-040000 | 12       | 64       |
| 22512-070140 | 7        | 8        |
|              | 8        | 6        |
| 23000-060000 | 5        | 8        |
|              |          | 19       |
|              |          | 22       |
| 23010-038000 | 10       | 42       |
| 23065-070225 | 10       | 39       |
| 23414-100000 | 9        | 37       |
|              | 17       | 25       |
| 23414-120000 | 13       | 54       |
| 23418-060000 | 14       | 34       |
| 23871-010000 | 1        | 11       |
| 23871-030000 | 1        | 15       |
|              | 10       | 13       |
| 23887-100002 | 12       | 65       |
| 24101-063034 | 11       | 87       |



## Parts No. Index

| Parts No.    | Fig. No. | Ref. No. |
|--------------|----------|----------|
| 24311-000120 | 4        | 57       |
|              | 17       | 26       |
| 24311-000160 | 2        | 13       |
|              | 9        | 27       |
|              | 14       | 11       |
|              | 17       | 27       |
| 24311-000320 | 2        | 14       |
|              |          | 30       |
|              | 4        | 53       |
|              | 17       | 28       |
| 24311-240100 | 14       | 12       |
|              |          | 35       |
| 24321-000300 | 10       | 30       |
| 24321-000650 | 14       | 13       |
| 24341-000160 | 11       | 88       |
| 24341-000240 | 2        | 26       |
|              | 17       | 29       |
| 24341-000280 | 12       | 66       |
| 24341-000500 | 4        | 54       |
|              | 17       | 30       |
| 25132-003900 | 10       | 15       |
| 26013-080222 | 5        | 9        |
|              |          | 10       |
| 26014-060302 | 10       | 19       |
| 26014-060352 | 16       | 26       |
| 26014-080702 | 14       | 14       |
| 26022-050102 | 11       | 89       |
| 26022-060162 | 11       | 90       |
| 26106-060102 | 12       | 67       |
|              |          | 68       |
|              |          | 69       |
| 26106-060142 | 12       | 70       |
| 26106-060162 | 2        | 27       |
| 26106-060202 | 12       | 71       |
| 26106-060322 | 15       | 28       |
| 26106-060402 | 15       | 29       |
| 26106-080122 | 2        | 15       |
| 26106-080142 | 4        | 6        |
| 26106-080162 | 1        | 29       |
|              | 2        | 16       |
|              |          | 17       |
|              | 3        | 12       |
|              | 4        | 55       |
|              | 10       | 31       |
| 26106-080202 | 2        | 18       |
|              | 5        | 4        |
|              | 9        | 28       |
|              | 10       | 25       |
| 26106-080252 | 3        | 13       |
|              | 4        | 43       |

| Parts No.    | Fig. No. | Ref. No. |
|--------------|----------|----------|
| 26106-080352 | 3        | 20       |
|              | 6        | 17       |
|              | 9        | 21       |
| 26106-080402 | 5        | 15       |
| 26106-080452 | 2        | 19       |
|              | 3        | 14       |
|              |          | 14 -1    |
|              | 7        | 14       |
| 26106-080502 | 3        | 22       |
|              | 4        | 44       |
|              | 16       | 28       |
| 26106-080552 | 2        | 20       |
| 26106-080602 | 10       | 14       |
| 26106-080802 | 5        | 5        |
|              |          | 16       |
|              | 6        | 4        |
| 26106-100162 | 6        | 18       |
| 26106-100652 | 6        | 13       |
| 26116-050302 | 11       | 91       |
| 26116-120252 | 15       | 30       |
| 26206-100252 | 3        | 4        |
| 26206-100302 | 3        | 5        |
| 26216-060202 | 4        | 15       |
| 26216-080802 | 6        | 6        |
| 26226-080182 | 4        | 41       |
| 26366-060002 | 4        | 26       |
| 26366-080002 | 2        | 22       |
|              | 6        | 3        |
|              |          | 19       |
|              | 12       | 74       |
|              | 16       | 24       |
| 26450-060252 | 9        | 15       |
| 26687-120002 | 12       | 79       |
| 26706-100002 | 6        | 14       |
| 26716-060002 | 11       | 92       |
| 26716-120002 | 7        | 17       |
| 26756-060002 | 12       | 72       |
| 26756-080002 | 4        | 42       |
| 26776-120002 | 12       | 73       |
| 27231-500000 | 1        | 12       |
| 27241-120000 | 1        | 13       |
| 27241-300000 | 1        | 14       |
| 27241-400000 | 4        | 16       |
| 27310-080001 | 4        | 21       |
| 28110-100120 | 17       | 36       |
| 28110-140170 | 17       | 37       |
| 719810-01500 | 2        | 1        |
| 729102-53100 | 13       | 1        |
| 729402-01540 | 3        | 6        |
| 729402-14580 | 7        | 3        |

| Parts No.    | Fig. No. | Ref. No. |
|--------------|----------|----------|
| 729402-23100 | 8        | 25       |
| 729407-01561 | 1        | 1        |
| 729407-92640 | 17       | 1        |
| 729612-51400 | 11       | 1        |
| 977770-01212 | 2        | 28       |
|              | 3        | 21       |
|              | 17       | 33       |
| X2114555500  | 15       | 25       |
| X2114955020  | 15       | 26       |
| X2240410100  | 15       | 27       |

| Parts No. | Fig. No. | Ref. No. |
|-----------|----------|----------|
|-----------|----------|----------|