

0CV10-M79300EN

PREFACE

1. This Parts Catalog carries all parts incorporated in YANMAR Model 3TNE88 - EMS engine manufactured since October, 2000.
2. Each illustration corresponds to the parts list on the following page.
3. When ordering parts, clearly write down the engine model and serial number, as well as the name and number of each part in your order sheet. This will help insure reliable delivery of the parts you have ordered.

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.

OCF10-G21601

29. FUEL INJECTION PUMP(W/BOOST)

1

REF.

2

LEV.

PARTS NO.

DESCRIPTION

(A)=4JH-DT
(B)=4JH-DTZ
(C)=4JH-DTZP

(D)=4JH-DTZA
(E)=4JH-DTZY
(F)=

Q'TY

(A) (B) (C) (D) (E) (F)

3

I

5

R

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 COMPENSATOR 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 $\xrightarrow{\text{Yes}}$ New No $\xrightarrow{\text{No}}$	New Part is interchangeable for Old Part but Old Part is not interchangeable for New Part.
Q	Old $\xrightarrow{\text{No}}$ New Yes $\xrightarrow{\text{Yes}}$	New Part is not interchangeable for Old Part but Old Part is interchangeable for New Part.
R	Old $\xrightarrow{\text{Yes}}$ New Yes $\xrightarrow{\text{Yes}}$	New/ Old Parts are both interchangeable.
S	Old $\xrightarrow{\text{No}}$ New No $\xrightarrow{\text{No}}$	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.

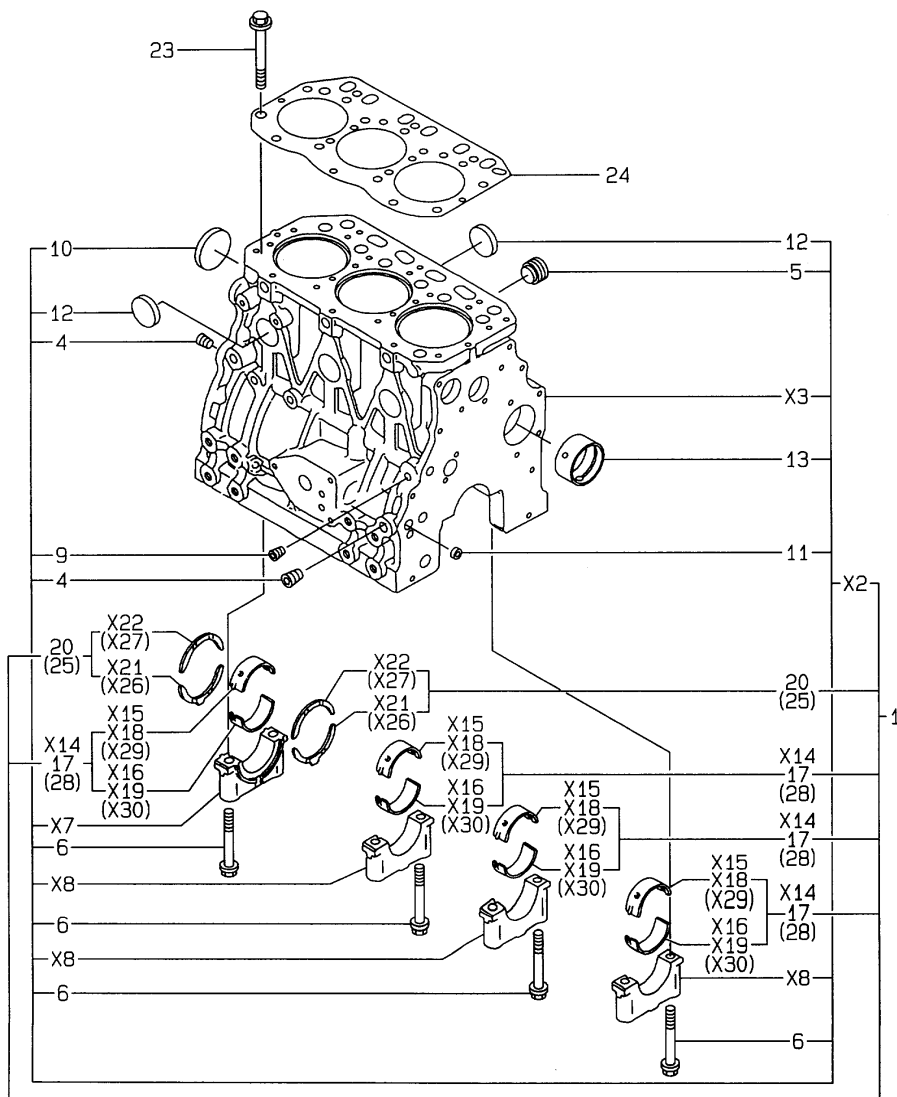
The comments (remarks) on parts that are indicated at the bottom of the illustration are the same symbols as those stated above.

Contents

Fig. No.	Fig. Name	Fig. No.	Fig. Name
3TNE88-EMS			
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2.	GEAR HOUSING		
3.	FLYWHEEL HOUSING & OIL SUMP		
4.	CYLINDER HEAD & BONNET		
5.	SUCTION MANIFOLD		
6.	EXHAUST MANIFOLD		
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.1. CYLINDER BLOCK

1. CYLINDER BLOCK



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

(A)=3TNE88-EMS
(B)=
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	729001-01560	BLOCK ASSY, CYLINDER	1							
4	3	124160-01910	PLUG, PT1/4	3							
5	3	171051-01921	PLUG, NPTF1	1							
6	3	129150-02020	BOLT, METAL CAP	8							
9	3	23876-010000	PLUG, R01	1							
10	3	129001-01250	PLUG, 50	1							
11	3	27241-120000	PLUG, 12	2							
12	3	27241-300000	PLUG 30	6							
13	3	129795-02411	BUSH, CAMSHAFT	1							
17	2	129001-02930	BEARING, MAIN	4							3
20	2	129150-02930	BEARING, THRUST	2							
23	1	129150-01200	BOLT, HEAD	14							
24	1	129001-01340	GASKET, HEAD	1							
25	1	129150-02940	BEARING, THRUST 0.25	1							1
28	1	129150-02870	BEARING, 0.25 US	4							2

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

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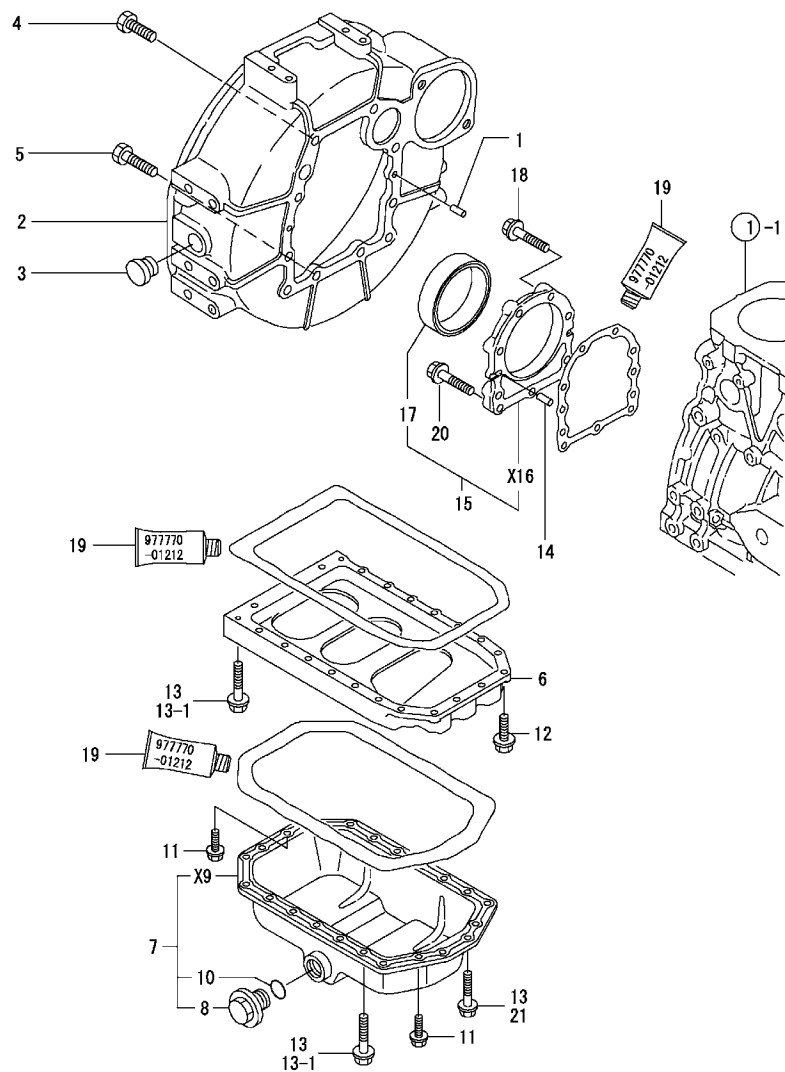
No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	719810-01500	CASE ASSY, GEAR	1							
3	2	129795-01800	SEAL, OIL	1							
4	1	129400-01520	FLANGE, GEAR CASE	1							
5	1	121450-01560	STUD, M8X22	3							
6	1	124160-01751	COVER, FILLER	1							
7	1	124240-01871	COVER	1							
8	1	26106-060162	BOLT, M6X 16 PLATED	2							
9	1	129795-01950	PIPE, KNOCK L=18	2							
10	1	129150-03100	RETAINER, PIPE	1							
11	1	121850-51960	O-RING	1							
12	1	24311-000160	O-RING, 1AP16.0	2							
13	1	24311-000320	O-RING, 1AP32.0	1							
14	1	26106-080122	BOLT, M8X 12 PLATED	4							
15	1	26106-080162	BOLT, M8X 16 PLATED	1							
16	1	26106-080162	BOLT, M8X 16 PLATED	3							
17	1	26106-080202	BOLT, M8X 20 PLATED	2							
18	1	26106-080452	BOLT, M8X 45 PLATED	6							
19	1	26106-080552	BOLT, M8X 55 PLATED	3							
20	1	129001-91841	BOLT, M8X85	4							
21	1	26366-080002	NUT, M8	3							
22	1	22190-080002	WASHER, SEAL 6	4							
23	1	22190-080002	WASHER, SEAL 6	1							
24	1	121023-01550	COVER	1							
25	1	24341-000240	O-RING, 1AS24.0	1							
26	1	977770-01212	GASKET, LIQUID	1							

Remarks
(1) OPTIONAL PART.

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

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Fig.3. FLYWHEEL HOUSING & OIL SUMP



X-MARK PARTS:NOT SOLD SEPARATELY.

Remarks
(1) OPTIONAL PART.

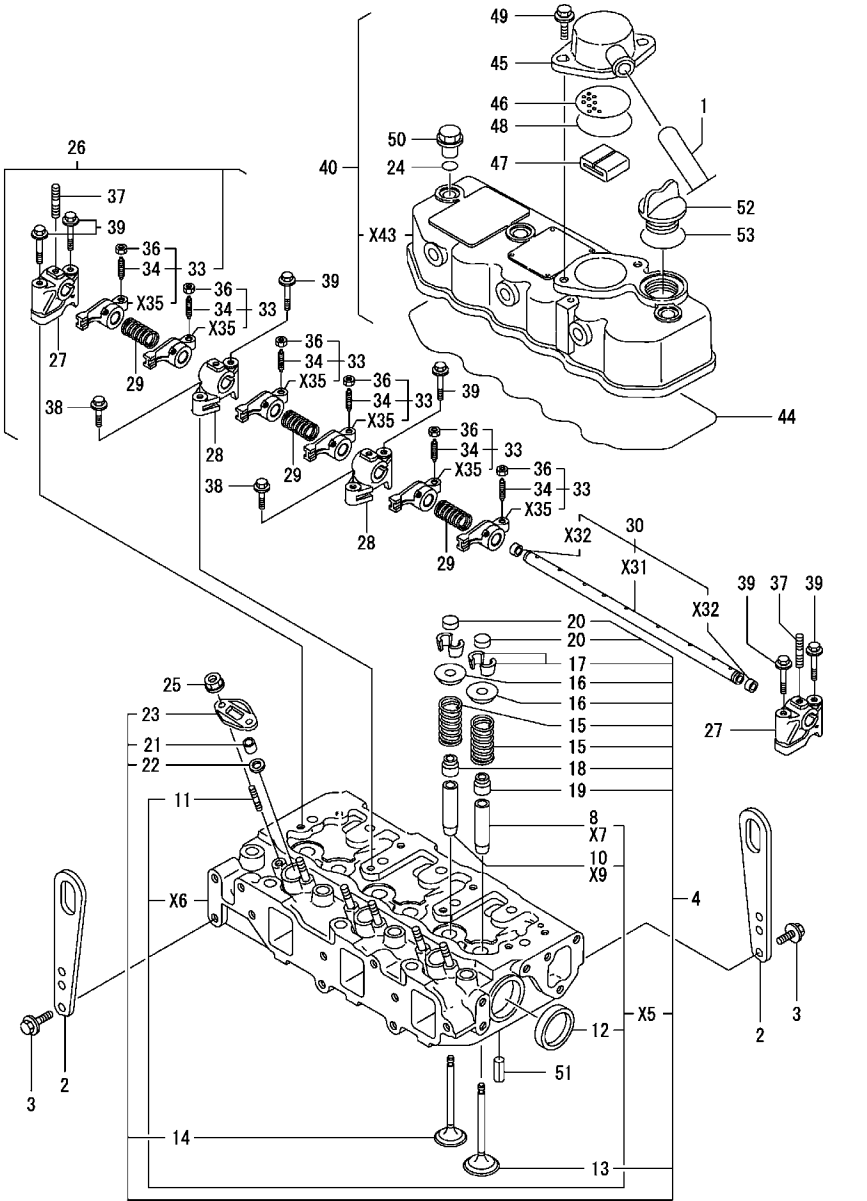
				(A)=3TNE88-EMS (B)= (C)=				(D)= (E)= (F)=			
No.	Lev.	Parts No.	Description	(A)	(B)	(C)	Q'ty (D)	(E)	(F)	I	R
1	1	129100-01580	PIN, M8X16	2							
2	1	129612-01600	HOUSING, FLYWHEEL	1							
3	1	119620-01750	CAP	1							
4	1	26206-100252	BOLT, M10X 25 PLATED	6							
5	1	26206-100302	BOLT, M10X 30 PLATED	4							
6	1	129100-01730	SPACER, OIL SUMP	1							
7	1	129175-01770	SUMP ASSY, OIL	1							
8	2	171301-01640	PLUG, 22	1							
10	2	24341-000250	O-RING, 1AS25.0	1							
11	1	26106-080162	BOLT, M8X 16 PLATED	4							
12	1	26106-080252	BOLT, M8X 25 PLATED	2							
13	1	26106-080452	BOLT, M8X 45 PLATED	20							
13-1	1	26106-080452	BOLT, M8X 45 PLATED	16							K
(A=FROM 1ST)											
14	1	129100-01580	PIN, M8X16	2							
15	1	129100-01640	CASE ASSY, OIL SEAL	1							
17	2	129795-01780	SEAL, OIL	1							
18	1	129486-01670	BOLT, M8X30	6							
19	1	977770-01212	GASKET, LIQUID	1							1
20	1	26106-080352	BOLT, M8X 35 PLATED	3							
21	1	26106-080502	BOLT, M8X 50 PLATED	4							W
(A=FROM 1ST)											

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

Fig.4. CYLINDER HEAD & BONNET

(A)=3TNE88-EMS
(B)=
(C)=

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



X-MARK PARTS: NOT SOLD SEPARATELY.

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	171350-03090	PIPE , BREATHER 900	1							
2	1	129900-07900	LIFTER	2							
3	1	26106-080162	BOLT, M8X 16 PLATED	4							
4	1	129051-11700	HEAD ASSY, CYLINDER	1							
8	3	120130-11860	GUIDE, VALVE	3							1
10	3	129150-11810	GUIDE, VALVE	3							1
11	3	26216-060202	STUD, M6X 20	6							
12	3	27241-400000	PLUG, 40	2							
13	2	129100-11100	VALVE, INTAKE	3							
14	2	129100-11110	VALVE, EXHAUST	3							
15	2	129795-11120	SPRING, VALVE	6							
16	2	129795-11180	RETAINER, SPRING	6							
17	2	27310-080001	COTTER, 8	6							
18	2	121400-11340	SEAL, VALVE STEM	3							
19	2	124460-11340	SEAL, VALVE STEM	3							
20	2	129150-11370	CAP, VALVE	6							
21	2	119625-11870	PROTECTOR, NOZZLE	3							
22	2	119625-11880	SEAT, NOZZLE	3							
23	2	119625-11900	RETAINER, NOZZLE	3							
24	1	24311-000120	O-RING, 1AP12.0	3							
25	1	26366-060002	NUT, M6	6							
26	1	129155-11241	SHAFT ASSY, ROCKER	1							
27	2	129155-11260	SUPPORT, ROCKER ARM	2							
28	2	129155-11270	SUPPORT, ROCKER ARM	2							
29	2	129150-11280	SPRING	3							
30	2	129150-11290	SHAFT, ROCKER ARM	1							
33	2	729402-11650	ARM ASSY, ROCKER	6							
34	3	129150-11230	SCREW, VALVE ADJUST	6							
36	3	129150-11750	NUT, M8	6							
37	2	26226-080182	STUD, M8X 18	3							
38	1	26106-080252	BOLT, M8X 25 PLATED	2							
39	1	26106-080502	BOLT, M8X 50 PLATED	6							
40	1	729132-11521	BONNET ASSY, HEAD	1							
44	2	129150-11310	GASKET, BONNET	1							
45	2	129150-03020	COVER, BREATHER	1							
46	2	129150-03080	PLATE, BAFFLE	1							
47	2	129150-03070	BAFFLE, BREATHER	1							
48	2	24341-000500	O-RING, 1AS50.0	1							
49	2	26106-080162	BOLT, M8X 16 PLATED	2							
50	1	124160-11360	KNOB	3							
51	1	22351-060012	PIN, SPRING 6.0X12	2							
52	1	124160-01751	COVER, FILLER	1							
53	1	24311-000320	O-RING, 1AP32.0	1							

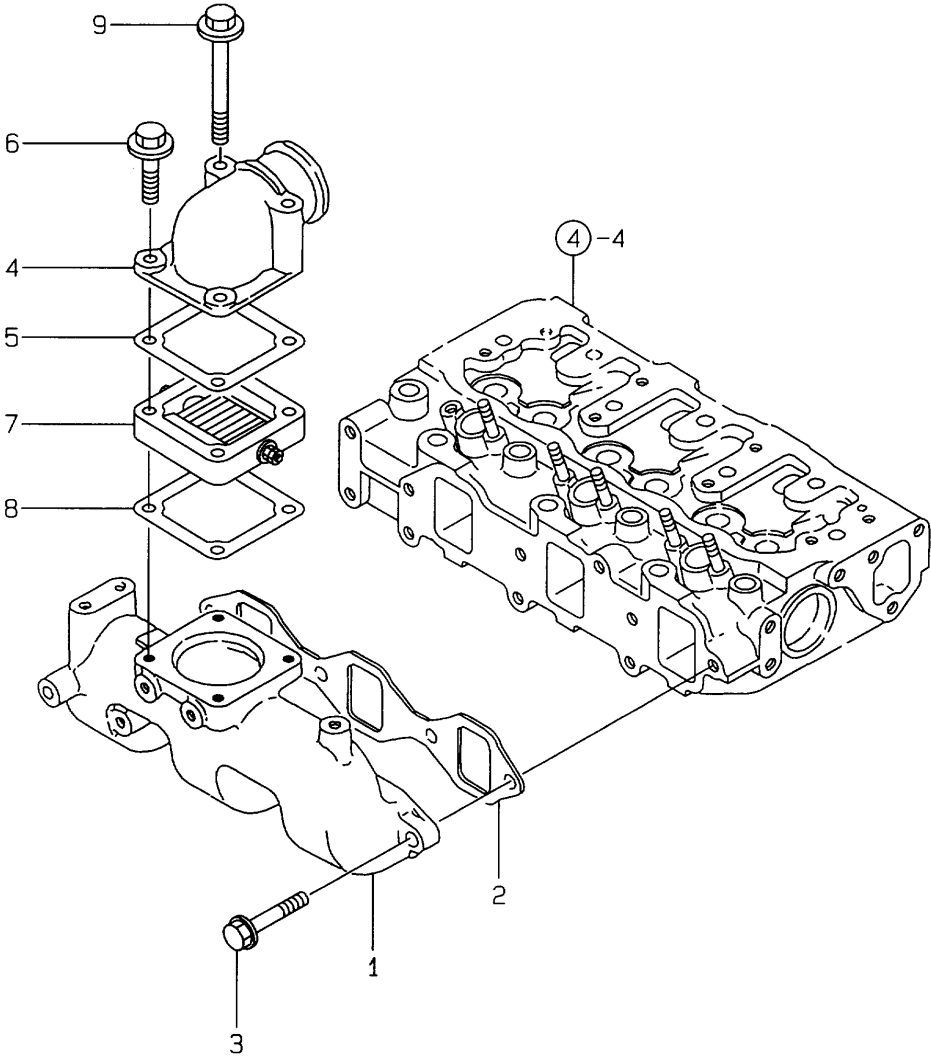
Remarks
(1) REPAIR PART.

Fig.5. SUCTION MANIFOLD

(A)=3TNE88-EMS
(B)=
(C)=

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

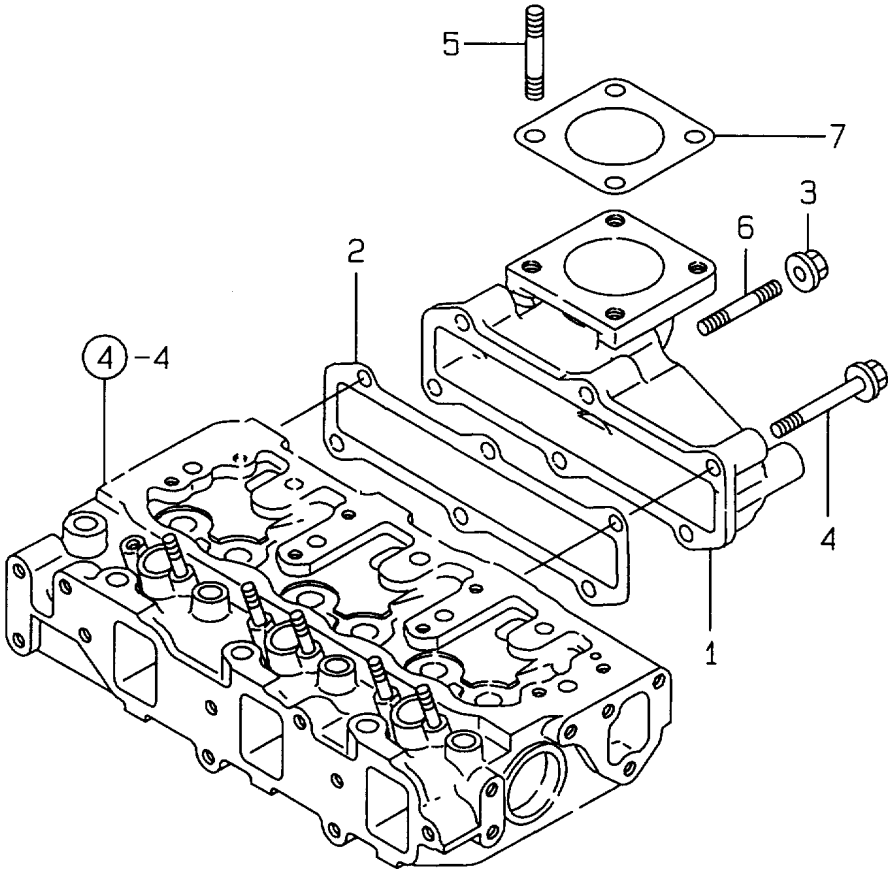
5. SUCTION MANIFOLD



No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129150-12100	MANIFOLD, AIR INTAKE	1							
2	1	129150-12111	GASKET, MANIFOLD	1							
3	1	26106-080252	BOLT, M8X 25 PLATED	4							
4	1	171340-77520	BEND	1							
5	1	129150-77511	GASKET	1							
6	1	26106-080402	BOLT, M8X 40 PLATED	2							
7	1	129100-77500	HEATER, AIR 12V	1							
8	1	129100-77510	GASKET	1							
9	1	26106-080802	BOLT, M8X 80 PLATED	2							

Fig.6. EXHAUST MANIFOLD

6.EXHAUST MANIFOLD



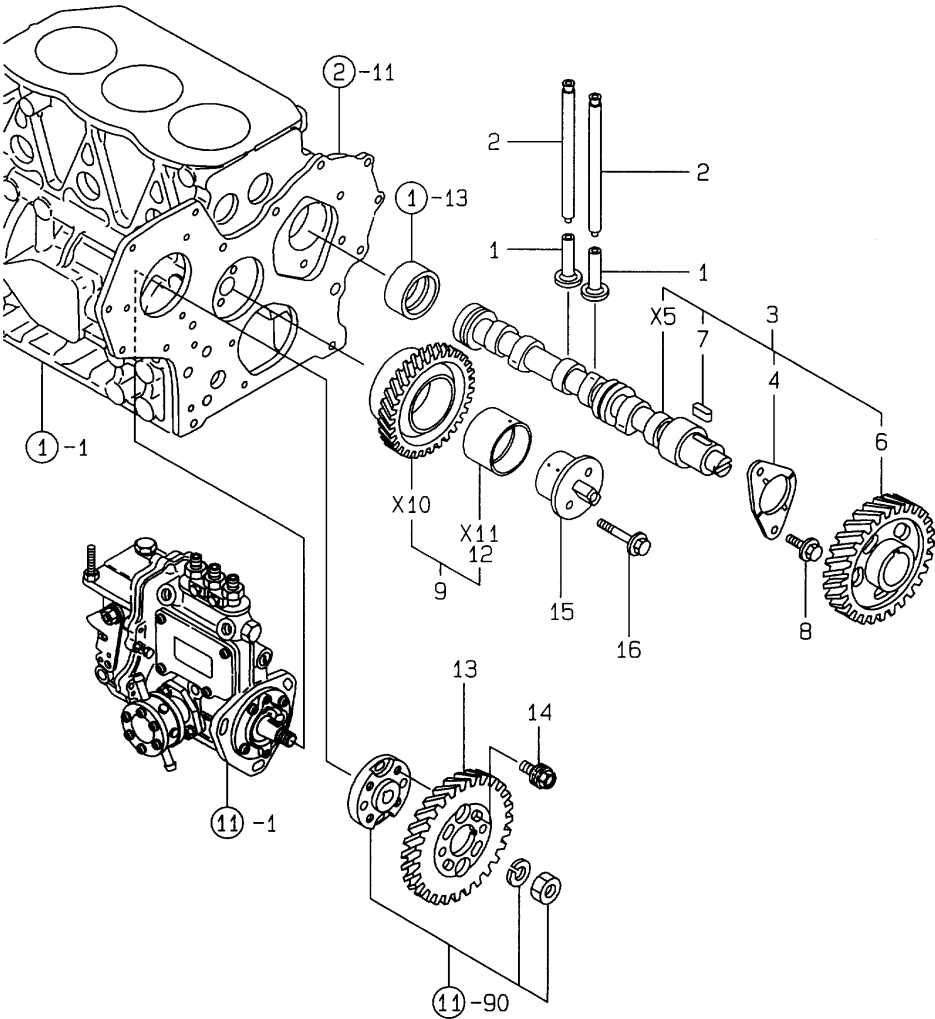
(A)=3TNE88-EMS
(B)=
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129001-13100	MANIFOLD, EXHAUST	1							
2	1	129001-13110	GASKET	1							
3	1	26366-080002	NUT, M8	2							
4	1	26106-080402	BOLT, M8X 40 PLATED	4							
5	1	119131-18320	STUD, M8X22	4							
6	1	26216-080402	STUD, M8X 40	2							
7	1	124701-11911	GASKET, SILENCER	1							

Fig.7. CAMSHAFT & DRIVING GEAR

7.CAMSHAFT & DRIVING GEAR



(A)=3TNE88-EMS
(B)=
(C)=

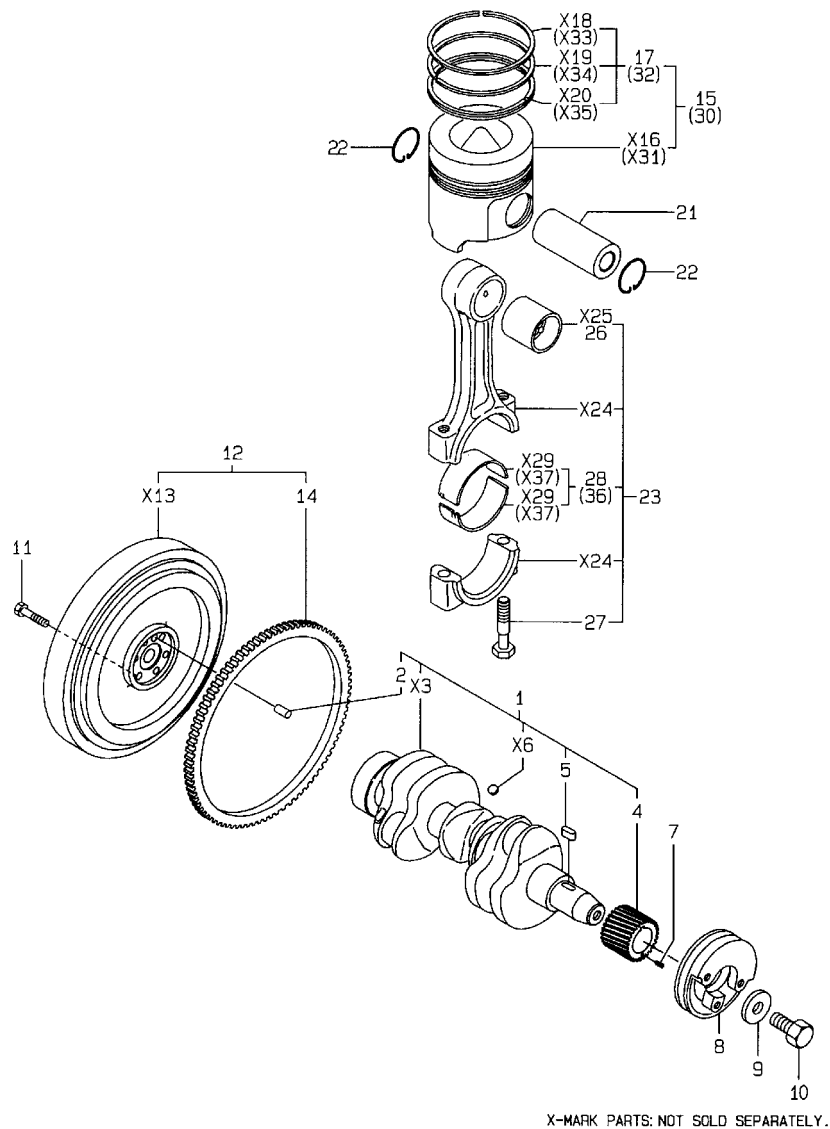
(D)=
(E)=
(F)=

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129150-14200	TAPPET	6							
2	1	129150-14400	ROD, PUSH L=178	6							
3	1	129129-14580	CAMSHAFT ASSY	1							
4	2	129150-02450	BEARING, THRUST	1							
6	2	129150-14101	GEAR, CAMSHAFT	1							
7	2	22512-070140	KEY, 7X 14	1							
8	1	26106-080142	BOLT, M8X 14 PLATED	2							
9	1	129150-25101	GEAR ASSY, IDLE	1							
12	2	129150-25920	BUSH, IDLE GEAR	1							1
13	1	129150-25931	GEAR, PUMP	1							
14	1	129150-25301	BOLT	4							
15	1	129100-25061	SHAFT, IDLE	1							
16	1	26106-080452	BOLT, M8X 45 PLATED	2							

Remarks
(1) REPAIR PART.

Fig.8. CRANKSHAFT & PISTON

8. CRANKSHAFT & PISTON



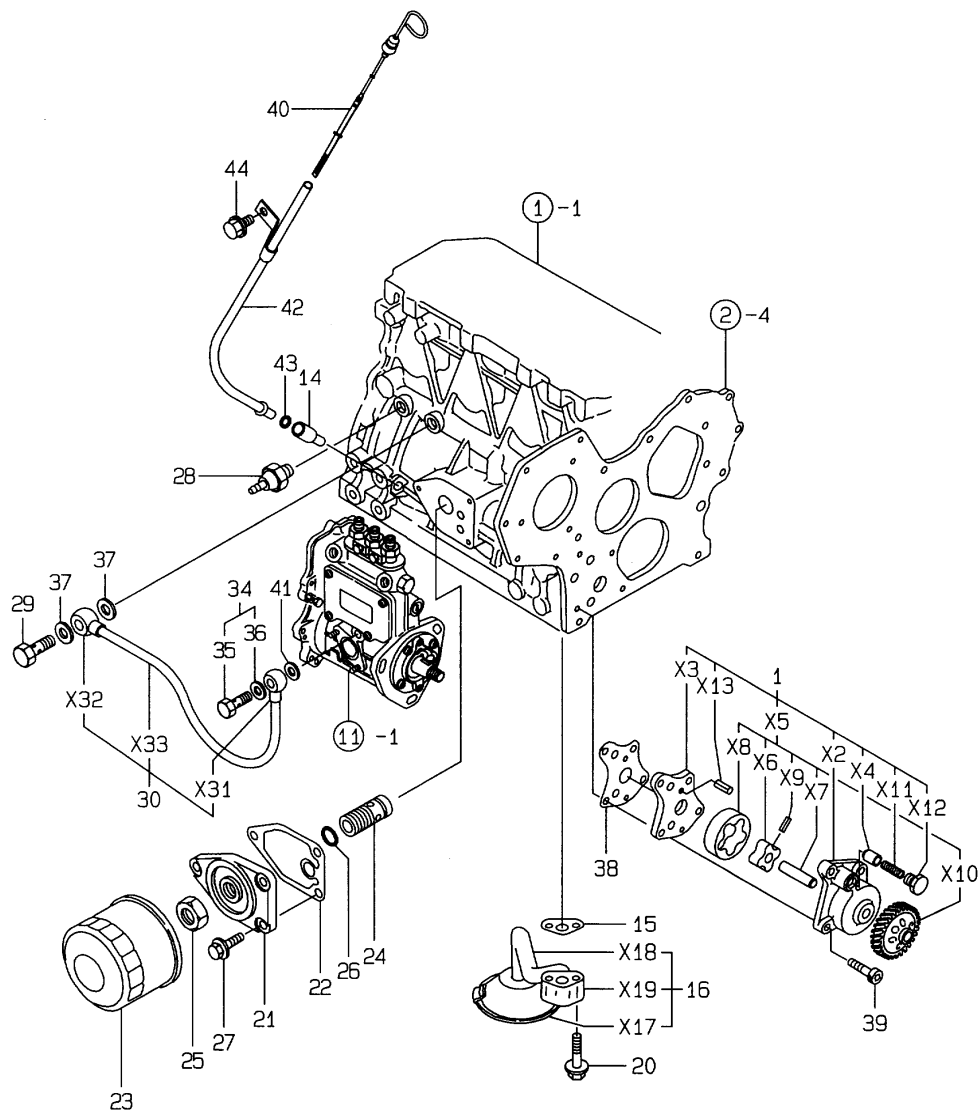
Remarks
(1) REPAIR PART.
(2) OVER-SIZE(O.S=0.25)PART.
(3) UNDER-SIZE(U.S=0.25)PART.

				(A)=3TNE88-EMS (B)= (C)=				(D)= (E)= (F)=			
No.	Lev.	Parts No.	Description	(A)	(B)	(C)	Q'ty (D)	(E)	(F)	I	R
1	1	129001-21100	CRANKSHAFT ASSY	1							
2	2	129100-01580	PIN, M8X16	1							
4	2	129150-21200	GEAR, CRANKSHAFT	1							
5	2	22512-070140	KEY, 7X 14	1							
7	1	22351-040010	PIN, SPRING 4.0X10	1							
8	1	171340-21650	V-PULLEY	1							
9	1	129795-21661	WASHER	1							
10	1	121850-21680	BOLT	1							
11	1	121111-21501	BOLT, FLYWHEEL	6							
12	1	171340-21580	FLYWHEEL ASSY	1							
14	2	119865-21600	GEAR, RING	1							
15	1	129001-22070	PISTON ASSY	3							
17	2	129001-22500	RING SET, PISTON	3							
21	1	129202-22300	PIN, PISTON D26 L70	3							
22	1	22252-000260	RING, 26	6							
23	1	729402-23100	ROD ASSY, CONNECTING	3							
26	2	129100-23910	BEARING, PISTON PIN	3							1
27	2	121550-23200	BOLT, CONNECTING ROD	6							
28	2	129150-23600	BEARING, CRANK PIN	3							
30	1	129001-22930	PISTON ASSY, 0.25 OS	3							2
32	2	129001-22950	RING SET, 0.25 OS	3							2
36	1	129150-23610	BEARING, 0.25 US	3							3

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

Fig.9. LUB.OIL SYSTEM

9.LUB.OIL SYSTEM



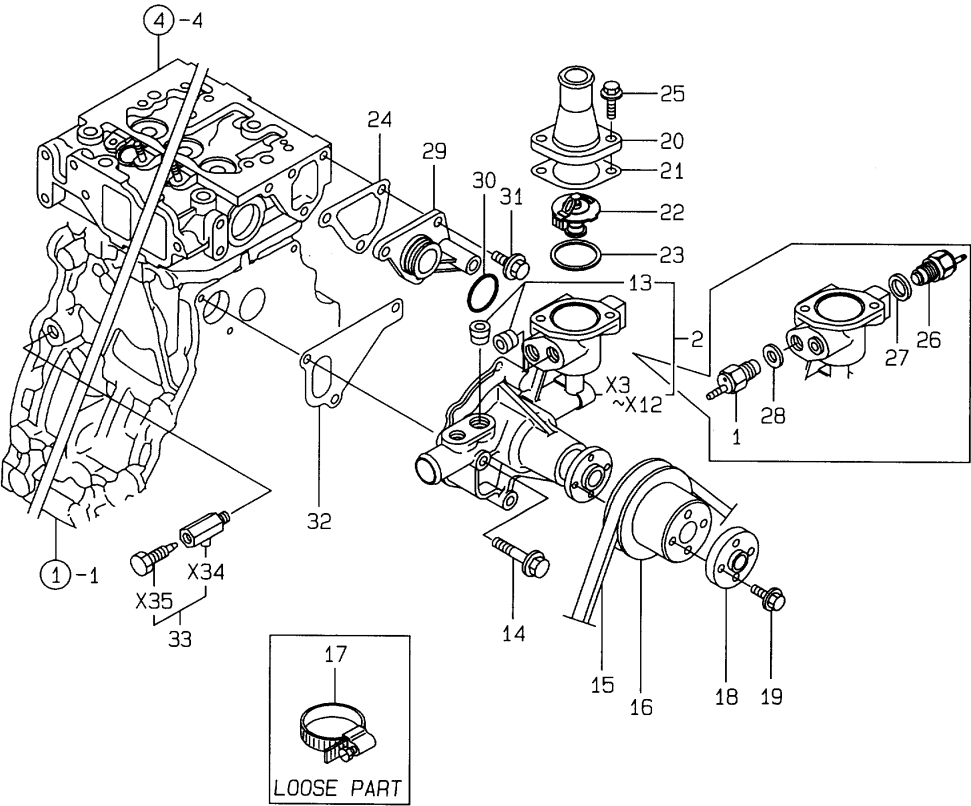
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				(B)=					(E)=		
				(C)=					(F)=		
No.	Lev.	Parts No.	Description	(A)	(B)	(C)	Q'ty (D)	(E)	(F)	I	R
1	1	129001-32001	PUMP ASSY, OIL	1							
14	1	119260-34810	GUIDE, DIPSTICK	1							
15	1	129150-35041	GASKET	1							
16	1	129150-35091	PIPE ASSY, OIL INLET	1							
20	1	26106-080352	BOLT, M8X 35 PLATED	2							
21	1	129150-35101	BRACKET, STRAINER	1							
22	1	129150-35111	GASKET	1							
23	1	129150-35151	FILTER, D80XL80	1							
24	1	129001-35300	BOLT, FILTER	1							
25	1	129150-35350	NUT	1							
26	1	24311-000160	O-RING, 1AP16.0	1							
27	1	26106-080202	BOLT, M8X 20 PLATED	3							
28	1	114250-39450	SWITCH, 0.5KG	1							
29	1	124160-39140	BOLT, PIPE JOINT M10	1							
30	1	129150-39450	PIPE ASSY, OIL	1							
34	1	124550-59830	BOLT ASSY, JOINT M8	1							
35	2	124550-59820	BOLT, PIPE JOINT M8	1							
36	2	22190-080002	WASHER, SEAL 6	1							
37	1	22190-100002	WASHER, SEAL 10	2							
38	1	129150-32020	GASKET, PUMP	1							
39	1	26450-060252	BOLT, M6X 25	4							
40	1	129114-34820	DIPSTICK, OIL	1							
41	1	22190-080002	WASHER, SEAL 6	1							
42	1	129114-34810	GUIDE, DIPSTICK	1							
43	1	24311-240100	O-RING, 1AP10A	1							
44	1	26106-080162	BOLT, M8X 16 PLATED	1							

Fig.10. COOLING WATER SYSTEM

(A)=3TNE88-EMS
(B)=
(C)=

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

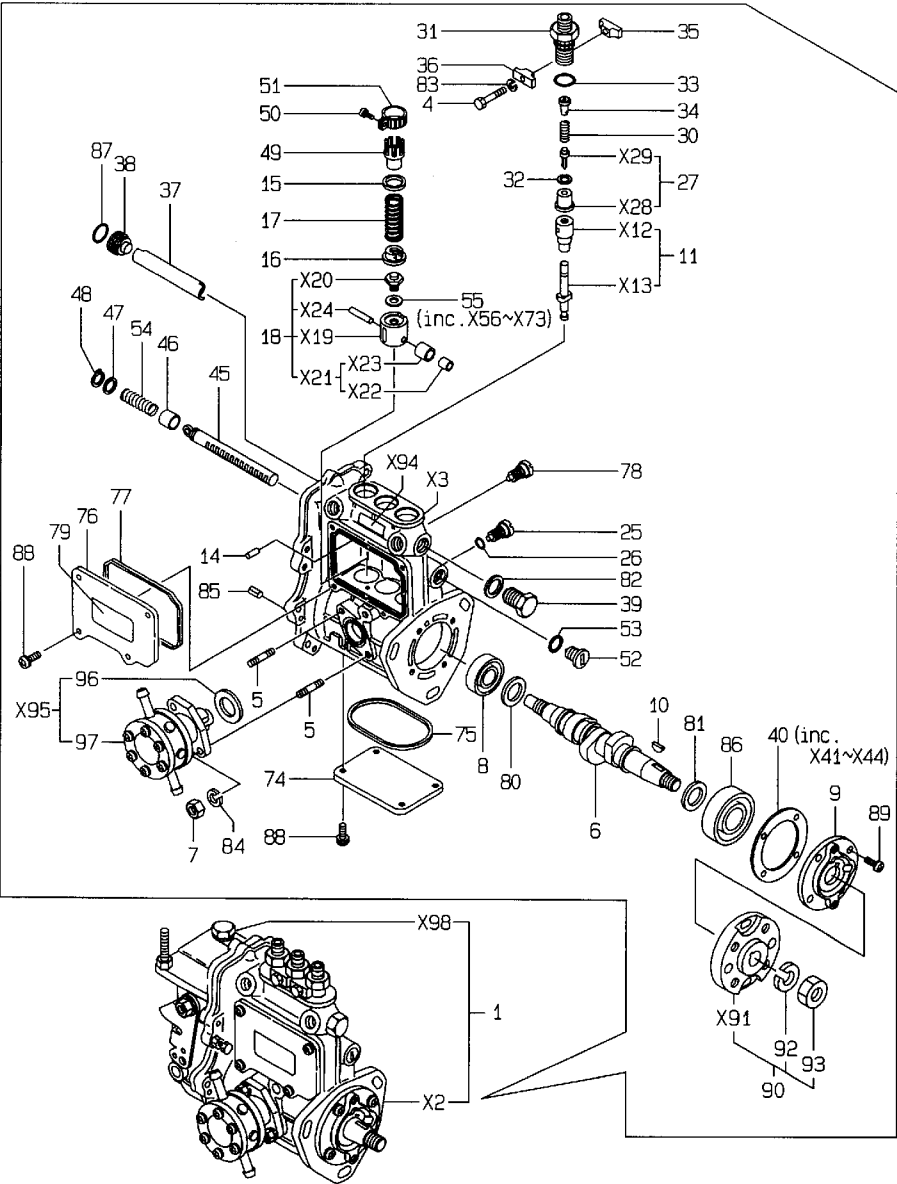
10.COOLING WATER SYSTEM



No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	121250-44901	SWITCH, 110	1							
2	1	129001-42003	PUMP ASSY, WATER	1							
13	2	23876-030000	PLUG, R03	2							
14	1	26106-080602	BOLT, M8X 60 PLATED	3							
15	1	25132-003800	V-BELT, A38	1							
16	1	129403-42380	V-PULLEY, D=110	1							
17	1	23010-038000	CLAMP, 38	4							
18	1	124574-44761	SPACER, FAN	1							
19	1	26014-060252	BOLT, M6X 25	4							
20	1	129350-49560	COVER, THERMOSTAT	1							
21	1	129795-49551	GASKET	1							
22	1	129574-49800	THERMOSTAT, 82	1							
23	1	129150-49811	GASKET, THERMOSTAT	1							
24	1	124395-49840	GASKET	1							
25	1	26106-080202	BOLT, M8X 20 PLATED	2							
26	1	124250-49351	SENSOR	1							
27	1	124465-44950	GASKET, 16	1							
28	1	129150-49360	GASKET	1							
29	1	129001-42040	JOINT	1							
30	1	129486-42140	O-RING, G30	1							
31	1	26106-080162	BOLT, M8X 16 PLATED	3							
32	1	129486-42021	GASKET, WATER PUMP	1							
33	1	119620-49290	COCK ASSY, 1/4	1							

Fig.11. FUEL INJECTION PUMP

11.FUEL INJECTION PUMP

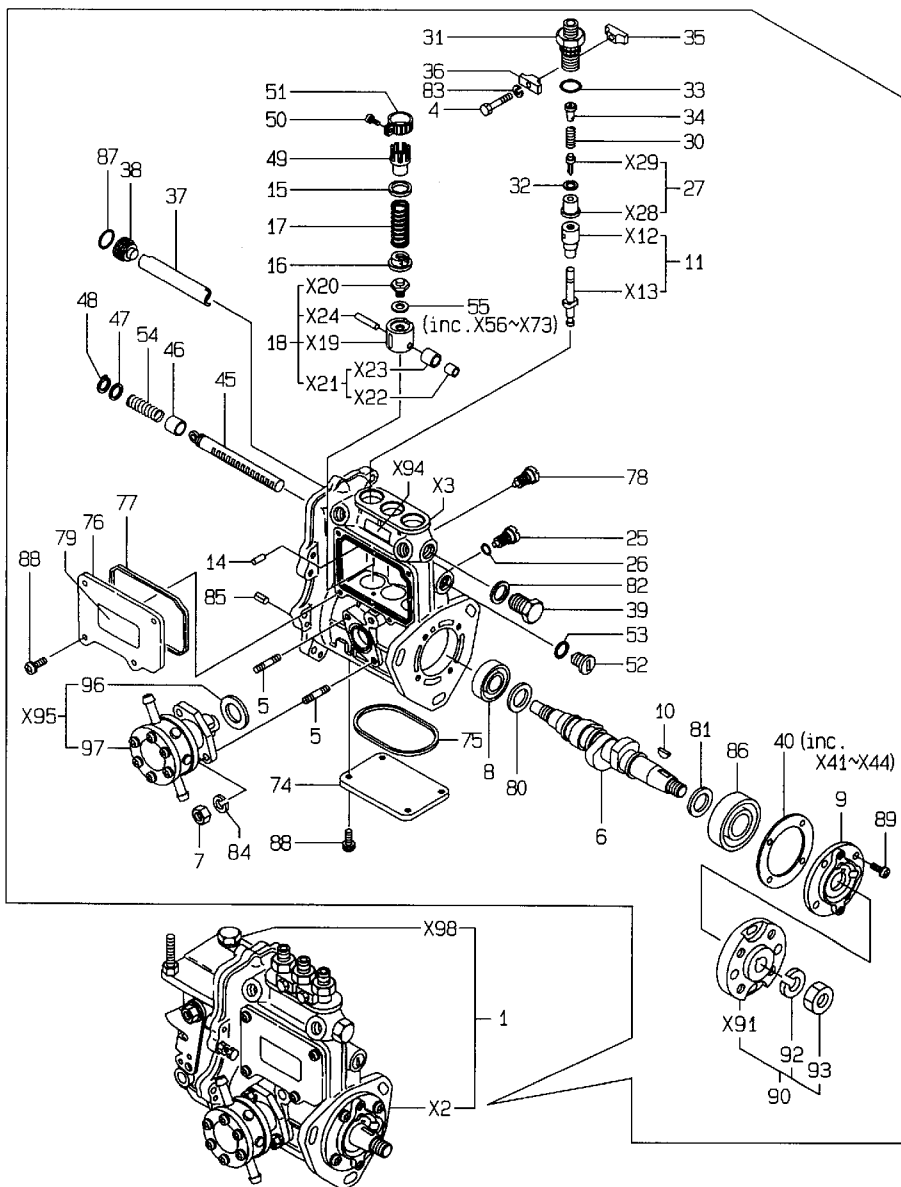


Remarks
(1)Governor(Fig.12) is incorporated in this Fuel Injection Pump(No.1).

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	729219-51490	PUMP ASSY, INJECTION	1							1
4	3	26116-050302	BOLT, M5X 30 PLATED	2							
5	3	129155-51020	BOLT, STUD	2							
6	3	129171-51040	CAMSHAFT	1							
7	3	26716-060002	NUT, M6	2							
8	3	129155-51051	BEARING	1							
9	3	129208-51060	SUPPORT	1							
10	3	122710-51090	FEATHER KEY,WOODRUFF	1							
11	3	129470-51101	PLUNGER ASSY, FUEL	3							
14	3	129155-51140	PIN	3							
15	3	158600-51170	RETAINER, SPRING	3							
16	3	129155-51180	RETAINER, SPRING	3							
17	3	124950-51190	SPRING, PLUNGER	3							
18	3	129155-51200	TAPPET ASSY	3							
25	3	158600-51270	STOPPER, TAPPET	3							
26	3	129155-51280	O-RING, S6	3							
27	3	129209-51300	VALVE ASSY, DELIVERY	3							
30	3	129573-51330	SPRING, DELIVERY	3							
31	3	129573-51340	RETAINER	3							
32	3	124550-51350	GASKET, DELIVERY	3							
33	3	24316-000150	O-RING, 4DP15.0	3							
34	3	129573-51370	STOPPER, VALVE	3							
35	3	129155-51380	STOPPER, DELIVERY	2							
36	3	129155-51390	STOPPER, DELIVERY	2							
37	3	129155-51400	DEFLECTOR	1							
38	3	158600-51410	PLUG, DEFLECTOR	1							
39	3	158600-51420	PLUG, DEFLECTOR	1							
40	3	129155-51450	SHIM SET, ADJUSTING	1							
45	3	129155-51500	RACK, CONTROL	1							
46	3	119025-51520	BUSH,RACK	1							
47	3	129155-51530	SPACER	1							
48	3	129155-51540	CIRCLIP	1							
49	3	129155-51550	PINION, CONTROL	3							
50	3	129100-51570	SCREW, PINION	3							
51	3	129100-51560	PINION	3							
52	3	158600-51570	PLUG, RACK	1							
53	3	129155-51580	O-RING	1							
54	3	129155-51591	SPRING, RACK	1							
55	3	129155-51600	SHIM SET, ADJUSTING	3							
74	3	129155-51701	COVER	1							
75	2	129155-51711	GASKET	1							
76	3	129155-51751	COVER	1							
77	3	129155-51761	GASKET	1							
78	3	158600-51790	STOPPER, RACK	1							
79	3	129156-51910	LABEL, CAUTION	1							
80	3	129155-51930	SPACER, T=3.25	1							
81	3	129155-51940	SPACER, T=1.5	1							
82	3	22190-160002	WASHER, SEAL 16	1							
83	3	22217-050000	WASHER, SPRING 5	2							
84	3	22217-060000	WASHER, SPRING 6	2							
85	3	22351-050010	PIN, SPRING 5.0X10	2							

Fig.11. FUEL INJECTION PUMP

11.FUEL INJECTION PUMP



				(A)=3TNE88-EMS (B)= (C)=	(D)= (E)= (F)=						
No.	Lev.	Parts No.	Description	(A)	(B)	Q'ty (C)	(D)	(E)	(F)	I	R
86	3	24101-063034	BEARING, BALL 6303	1							
87	3	119717-51420	O-RING	1							
88	3	26022-050122	SCREW, M5X12	8							
89	3	26022-060162	SCREW, M6X16	4							
90	3	129208-54500	FLANGE ASSY	1							
92	4	22217-120000	WASHER, SPRING 12	1							
93	4	26716-120002	NUT, M12	1							
96	3	129155-52051	GASKET	1							
97	3	129100-52101	PUMP ASSY, FUEL FEED	1							

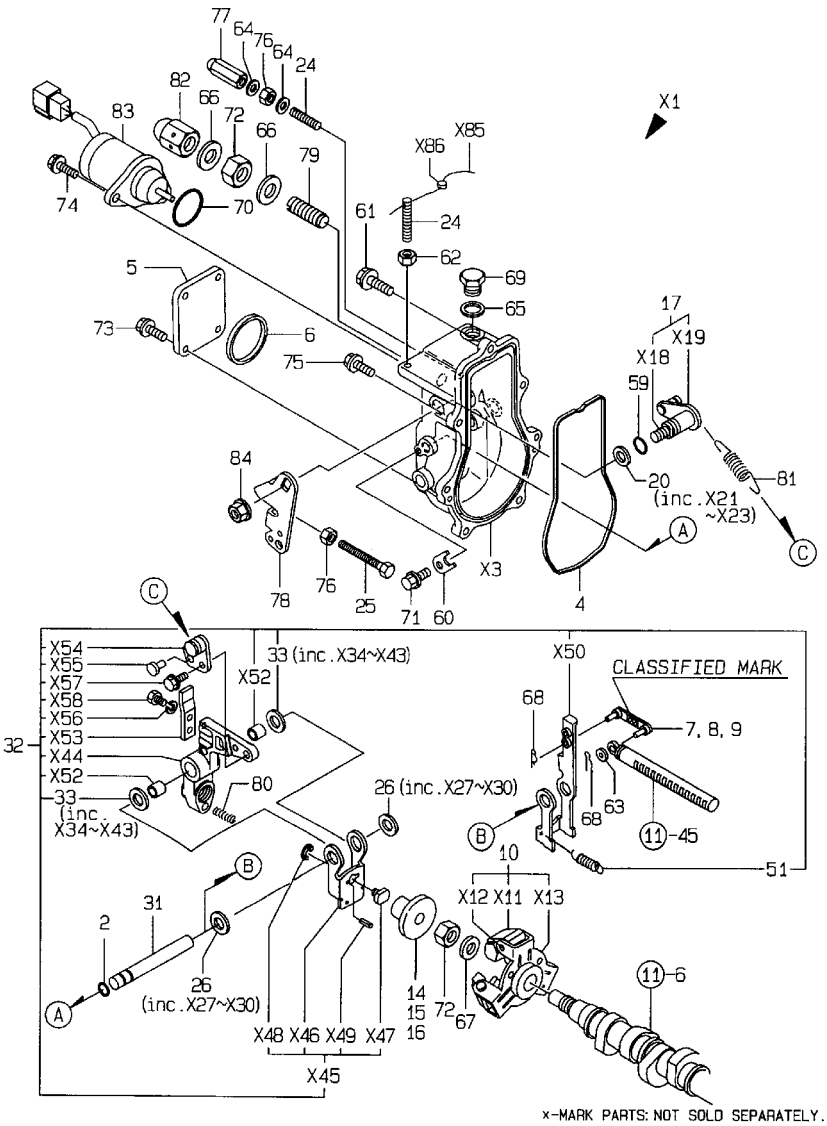
(1) Governor (Fig.12) is incorporated in this Fuel Injection Pump (No.1).

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

(A)=3TNE88-EMS
(B)=
(C)=

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

12. GOVERNOR



No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
2	3	129155-51280	O-RING, S6	1							
4	3	129052-61051	GASKET	1							
5	3	129052-61060	COVER, GOVERNOR CASE	1							
6	3	129052-61071	GASKET	1							
7	3	129155-61120	LINK, L=30 MARK 0	1							1
8	3	129155-61130	LINK, L=31 MARK 1	1							1
9	3	129155-61140	LINK, L=30.5 MARK 05	1							1
10	3	129486-61202	WEIGHT ASSY, GOVERNOR	1							
14	3	129155-61341	SLEEVE	1							2
15	3	129155-61350	SLEEVE, L=24.9	1							2
16	3	129155-61360	SLEEVE, L=25.2	1							2
17	3	129100-61400	SHAFT ASSY	1							
20	3	129155-61430	SHIM, SHAFT	1							
24	3	129155-61450	BOLT, LIMITING	2							
25	3	129155-61461	BOLT, IDLE LIMIT	1							
26	3	129155-61480	SHIM ASSY	2							
31	3	129052-61390	SHAFT, GOVERNOR LEVER	1							
32	3	119908-61501	LEVER ASSY, GOVERNOR	1							
33	4	174307-51700	SHIM SET, PLUNGER	2							
51	4	129486-61540	SPRING, GOV. LEVER	1							
59	3	129155-61830	O-RING, S10	1							
60	3	119660-61901	STOPPER, SHAFT	1							
61	3	129155-61950	BOLT	1							
62	3	124550-66370	NUT, M6	1							
63	3	22117-040000	WASHER, 4	1							
64	3	22190-060003	SEAL WASER 6	2							
65	3	22190-100002	WASHER, SEAL 10	1							
66	3	22190-120002	WASHER, SEAL 12	2							
67	3	22287-120000	WASHER, 12	1							
68	3	22372-040000	PIN, SNAP 4	2							
69	3	23887-100002	PLUG, 10	1							
70	3	158552-61900	O-RING	1							
71	3	26106-060102	BOLT, M6X 10 PLATED	1							
72	3	26776-120002	NUT, LOCK M12	2							
73	3	26106-060102	BOLT, M6X 10 PLATED	4							
74	3	26106-060142	BOLT, M6X 14 PLATED	2							
75	3	26106-060202	BOLT, M6X 20 PLATED	6							
76	3	26756-060002	NUT, LOCK M6	2							
77	2	119600-66840	NUT, CAP	2							
78	2	129100-61440	LEVER, CONTROL	1							
79	2	120323-61470	BOLT, CONTROL	1							
80	2	129100-61650	SPRING, FUEL LIMITER	1							
81	2	171353-61700	SPRING, GOVERNOR	1							
82	2	129209-61930	NUT, CAP	1							
83	2	119653-77950	SOLENOID, STOP	1							
84	2	26366-080002	NUT, M8	1							

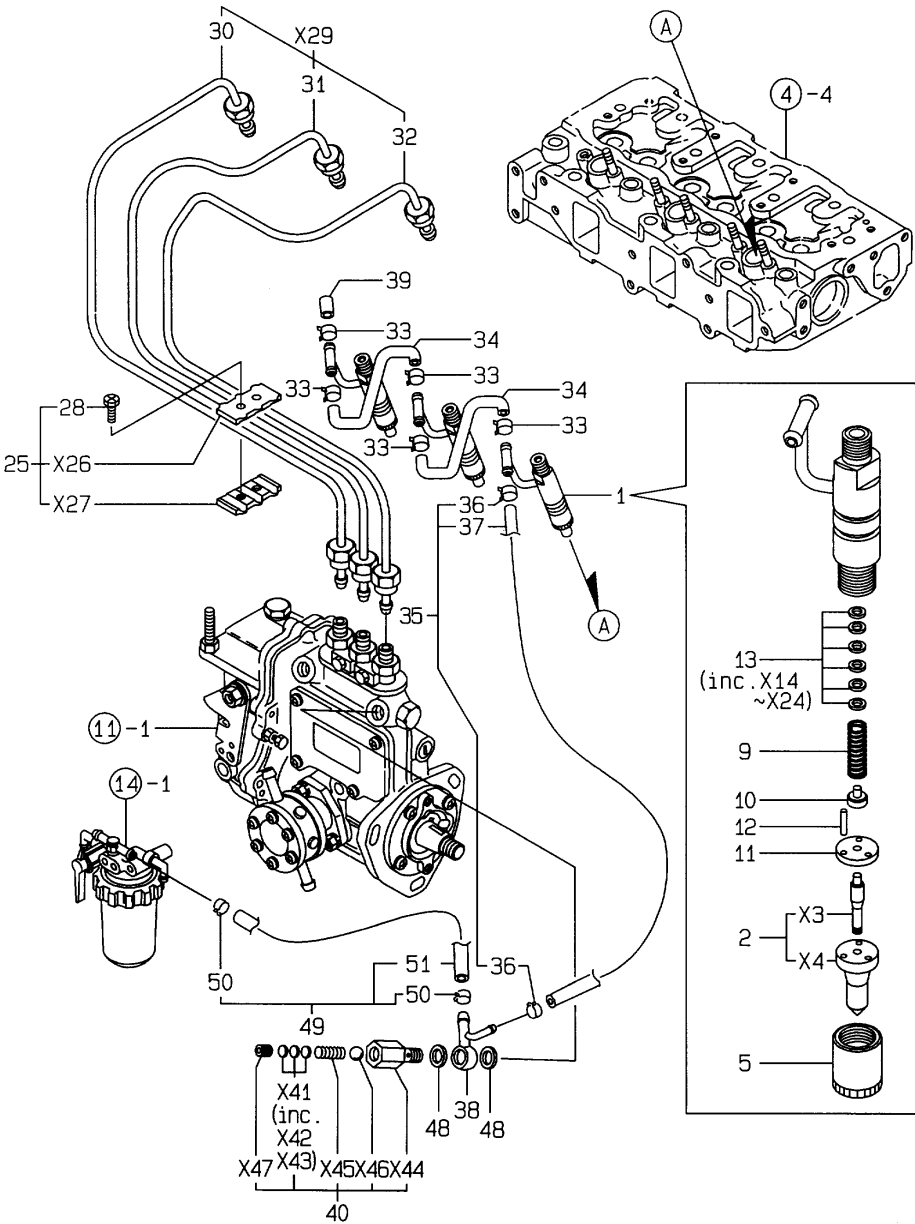
x-MARK PARTS: NOT SOLD SEPARATELY.

Remarks

* This figure(Governor) is incorporated in the Fuel Injection Pump(Fig.11).
(1) Certain the classification mark, then place your order(Refer to illustration).
(2) Selective parts.

Fig.13. FUEL INJECTION VALVE

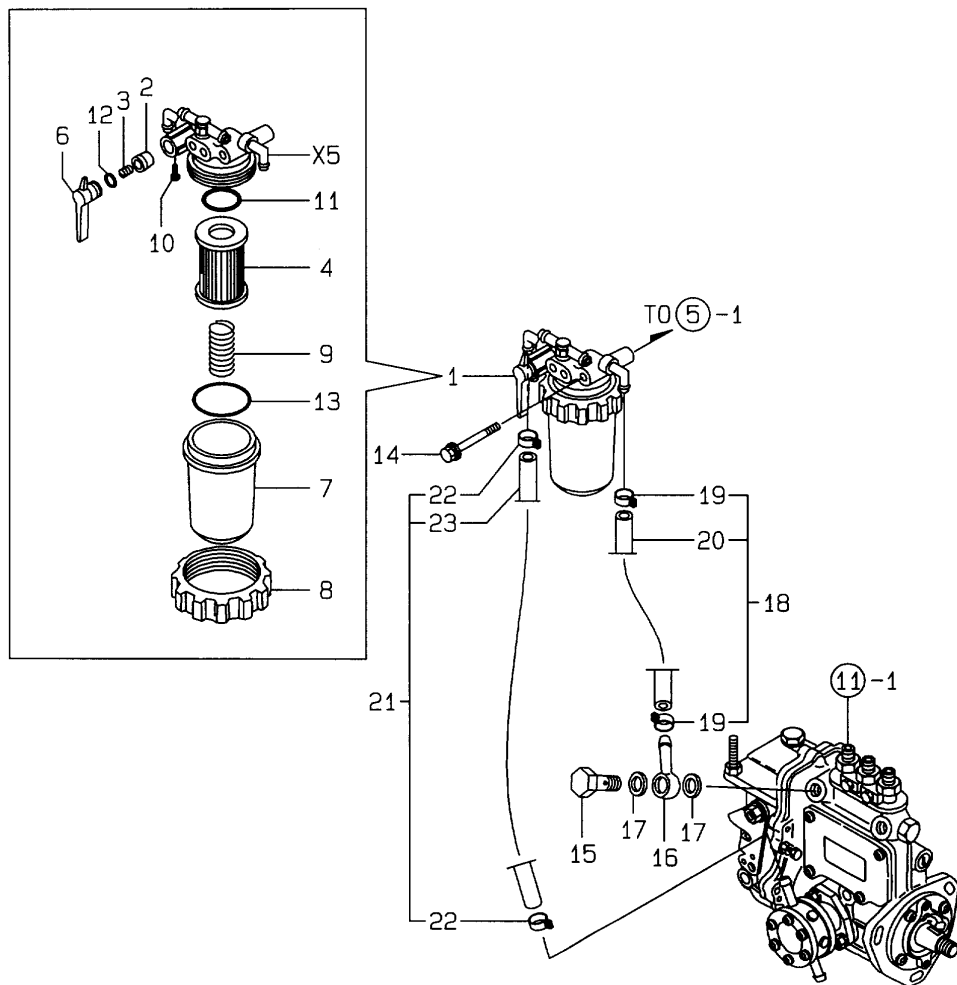
13.FUEL INJECTION VALVE



No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	729209-53100	VALVE ASSY,INJECTION	3							
2	2	129209-53000	VALVE ASSY,INJECTION	3							
5	2	114250-53080	NUT, NOZZLE	3							
9	2	114250-53120	SPRING, NOZZLE	3							
10	2	114250-53130	SEAT, SPRING	3							
11	2	114250-53140	SPACER	3							
12	2	114250-53210	PIN	6							
13	2	114250-53400	SHIM SET	3							
25	1	129150-59120	RETAINER, PIPE	1							
28	2	129150-59131	BOLT, M4X14	2							
30	2	129211-59810	PIPE ASSY, INJECTION	1							
31	2	129211-59820	PIPE ASSY, INJECTION	1							
32	2	129211-59830	PIPE ASSY, INJECTION	1							
33	1	124066-59100	CLAMP, HOSE 8	5							
34	1	121250-59550	HOSE, FUEL D8X120	2							
35	1	119840-59500	HOSE ASSY, RETURN	1							
36	2	124066-59100	CLAMP, HOSE 8	2							
37	2	119840-59560	HOSE, FUEL RETURN	1							
38	1	119840-59570	JOINT	1							
39	1	129150-59580	CAP	1							
40	1	129100-59951	VALVE ASSY, CHECK	1							
48	1	22190-120002	WASHER, SEAL 12	2							
49	1	129210-59130	HOSE ASSY, FUEL	1							
50	2	124766-59050	CLAMP, HOSE 11.5	2							
51	2	105025-59750	HOSE, FUEL	1							

Fig.14. FUEL LINE

14. FUEL LINE



No.	Lev.	Parts No.	Description	(A)=3TNE88-EMS		(D)=		(E)=		I	R
				(B)=	(C)=	(F)=					
				(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	22190-120002	WASHER, SEAL 12	2							
18	1	129210-59020	PIPE ASSY, FUEL	1							
19	2	124766-59050	CLIP, HOSE 12	2							
20	2	129115-59510	PIPE, FUEL	1							
21	1	129210-59130	PIPE ASSY, FUEL	1							
22	2	124766-59050	CLIP, HOSE 12	2							
23	2	105025-59750	PIPE, FUEL	1							

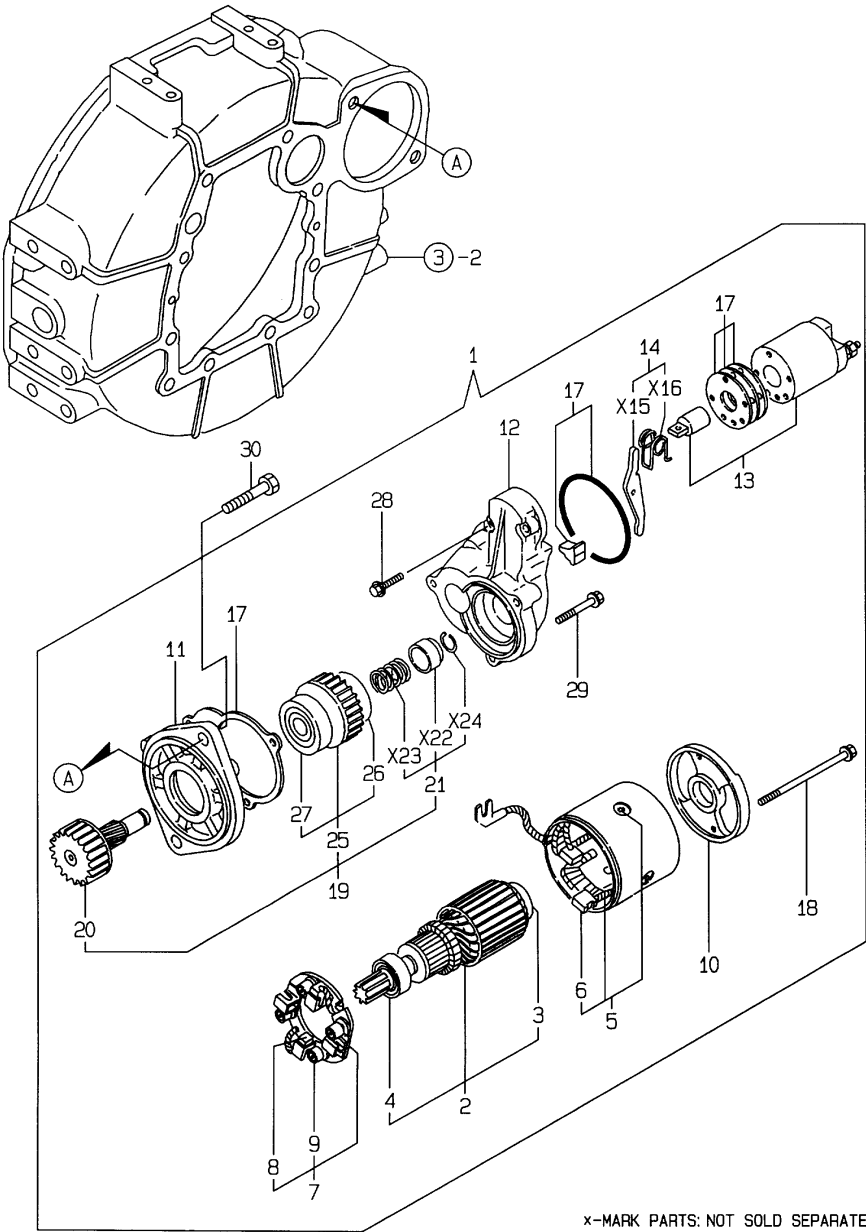
0CV10-M79300 3TNE88-EMS
Fig.15. STARTING MOTOR

(A)=3TNE88-EMS
(B)=
(C)=

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

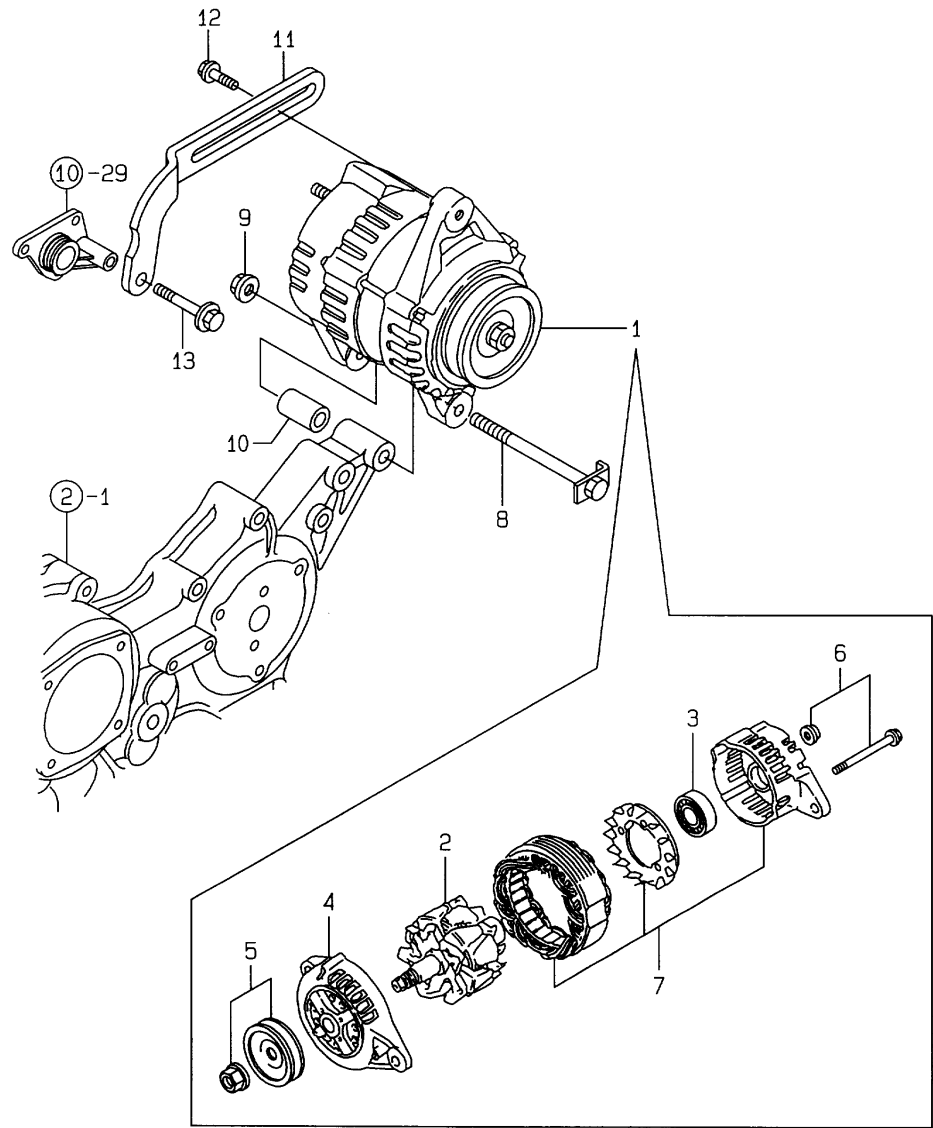
No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129400-77012	STARTER	1							
2	2	129486-77400	ARMATURE	1							
3	3	171008-77410	BEARING	1							
4	3	171008-77420	BEARING	1							
5	2	129400-77441	COIL ASSY, FIELD	1							
6	3	129486-77460	BRUSH	2							
7	2	129486-77470	HOLDER ASSY, BRUSH	1							
8	3	129486-77460	BRUSH	2							
9	3	129486-77490	SPRING	4							
10	2	129900-77460	COVER	1							
11	2	171008-77510	CASE, GEAR	1							
12	2	129400-77520	HOUSING	1							
13	2	129400-77531	SWITCH ASSY	1							
14	2	171008-77540	LEVER SET	1							
17	2	129400-77571	COVER ASSY, DUST	1							
18	2	129900-77640	BOLT, THROUGH	2							
19	2	171008-77650	PINION ASSY	1							
20	3	171008-77660	SHAFT	1							
21	3	171008-77670	STOPPER SET	1							
25	3	X2114555500	CLUTCH ASSY	1							
26	4	X2114955020	BEARING, BALL	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	26116-120302	BOLT, M12X 30 PLATED	2							

15.STARTING MOTOR



x-MARK PARTS: NOT SOLD SEPARATELY.

16. GENERATOR

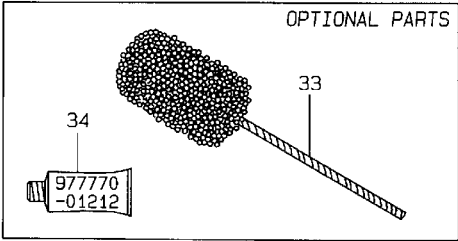
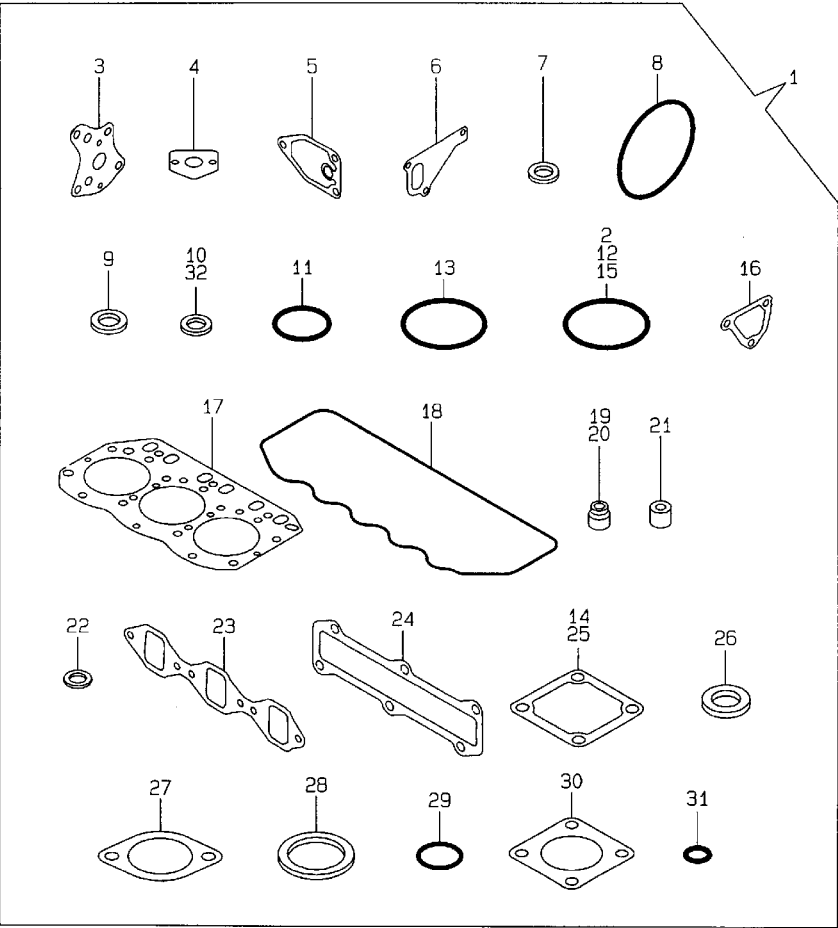


No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	119836-77201	GENERATOR	1							
2	2	129612-77700	ROTOR ASSY	1							
3	2	129612-77710	BEARING, BALL	1							
4	2	129612-77730	BRACKET ASSY, FILTER	1							
5	2	129612-77740	PULLEY	1							
6	2	129612-77750	SCREW KIT	1							
7	2	119836-77920	BRACKET ASSY	1							
8	1	129136-77251	BOLT, M8X110	1							
9	1	129612-77260	NUT, ALTERNATOR	1							
10	1	119820-77340	PIECE, DISTANCE	1							
11	1	129100-77330	ADJUSTER	1							
12	1	119810-77340	BOLT, ADJUSTER	1							
13	1	26106-080502	BOLT, M8X 50 PLATED	1							

(A)=3TNE88-EMS
(B)=
(C)=

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

17.GASKET SET



No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	729030-92750	GASKET SET	1							1
2	2	24341-000500	O-RING, 1AS50.0	1							
3	2	129150-32020	GASKET, PUMP	1							
4	2	129150-35041	GASKET	1							
5	2	129150-35111	GASKET	1							
6	2	129486-42021	GASKET, WATER PUMP	1							
7	2	22190-080002	WASHER, SEAL 6	7							
8	2	121850-51960	O-RING	1							
9	2	22190-120002	WASHER, SEAL 12	4							
10	2	22190-100002	WASHER, SEAL 10	2							
11	2	24311-000160	O-RING, 1AP16.0	3							
12	2	129486-42140	O-RING, G30	1							
13	2	24341-000240	O-RING, 1AS24.0	1							
14	2	129100-77510	GASKET	1							
15	2	24311-000320	O-RING, 1AP32.0	2							
16	2	124395-49840	GASKET	1							
17	2	129001-01340	GASKET, HEAD	1							
18	2	129150-11310	GASKET, BONNET	1							
19	2	121400-11340	SEAL, VALVE STEM	3							
20	2	124460-11340	SEAL, VALVE STEM	3							
21	2	119625-11870	PROTECTOR, NOZZLE	3							
22	2	119625-11880	SEAT, NOZZLE	3							
23	2	129150-12111	GASKET, MANIFOLD	1							
24	2	129001-13110	GASKET	1							
25	2	129150-77511	GASKET	1							
26	2	124465-44950	GASKET, 16	1							
27	2	129795-49551	GASKET	1							
28	2	129150-49811	GASKET, THERMOSTAT	1							
29	2	24311-000120	O-RING, 1AP12.0	3							
30	2	124701-11911	GASKET, SILENCER	1							
31	2	24311-240100	O-RING, 1AP10A	1							
32	2	129150-49360	GASKET	1							
33	1	129400-92430	HONE	1							1
34	1	977770-01212	GASKET, LIQUID	1							1

Remarks
(1) OPTIONAL PART.

Parts No. Index

Parts No.	Fig. No.	Ref. No.
101304-59020	14	16
103854-39140	14	15
104200-55321	14	2
104200-55330	14	3
104200-55750	14	10
105025-59750	13	51
	14	23
114250-39450	9	28
114250-53080	13	5
114250-53120	13	9
114250-53130	13	10
114250-53140	13	11
114250-53210	13	12
114250-53400	13	13
119025-51520	11	46
119131-18320	6	5
119260-34810	9	14
119600-66840	12	77
119620-01750	3	3
119620-49290	10	33
119625-11870	4	21
	17	21
119625-11880	4	22
	17	22
119625-11900	4	23
119653-77950	12	83
119660-61901	12	60
119717-51420	11	87
119810-77340	16	12
119820-77340	16	10
119836-77201	16	1
119836-77920	16	7
119840-59500	13	35
119840-59560	13	37
119840-59570	13	38
119865-21600	8	14
119908-61501	12	32
120130-11860	4	8
120323-61470	12	79
121023-01550	2	24
121111-21501	8	11
121250-44901	10	1
121250-59550	13	34
121400-11340	4	18
	17	19
121450-01560	2	5
121550-23200	8	27
121850-21680	8	10
121850-51960	2	11
	17	8

Parts No.	Fig. No.	Ref. No.
122710-51090	11	10
124066-59100	13	33
		36
124160-01751	2	6
	4	52
124160-01910	1	4
124160-11360	4	50
124160-39140	9	29
124240-01871	2	7
124250-49351	10	26
124395-49840	10	24
	17	16
124460-11340	4	19
	17	20
124465-44950	10	27
	17	26
124550-51350	11	32
124550-59820	9	35
124550-59830	9	34
124550-66370	12	62
124574-44761	10	18
124701-11911	6	7
	17	30
124766-59050	13	50
	14	19
		22
124950-51190	11	17
129001-01250	1	10
129001-01340	1	24
	17	17
129001-02930	1	17
129001-13100	6	1
129001-13110	6	2
	17	24
129001-21100	8	1
129001-22070	8	15
129001-22500	8	17
129001-22930	8	30
129001-22950	8	32
129001-32001	9	1
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129001-91841	2	20
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129150-02870	1	28
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129150-02940	1	25
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129150-03070	4	47
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129150-59131	13	28
129150-59580	13	39
129150-77511	5	5
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129155-11241	4	26
129155-11260	4	27
129155-11270	4	28
129155-51020	11	5
129155-51051	11	8
129155-51140	11	14
129155-51180	11	16
129155-51200	11	18
129155-51280	11	26
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129155-51400	11	37
129155-51450	11	40
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129155-52051	11	96
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171008-77540	15	14
171008-77650	15	19
171008-77660	15	20
171008-77670	15	21
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26106-080502	3	21
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26106-080552	2	19
26106-080602	10	14
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26716-120002	11	93
26756-060002	12	76
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27241-300000	1	12
27241-400000	4	12
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719810-01500	2	1
729001-01560	1	1
729030-92750	17	1
729132-11521	4	40
729209-53100	13	1
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