

0CV10-M65600EN

PREFACE

1. This Parts Catalog carries all parts incorporated in YANMAR Model 3TNE88 - ECS engine manufactured since February, 1999.
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.

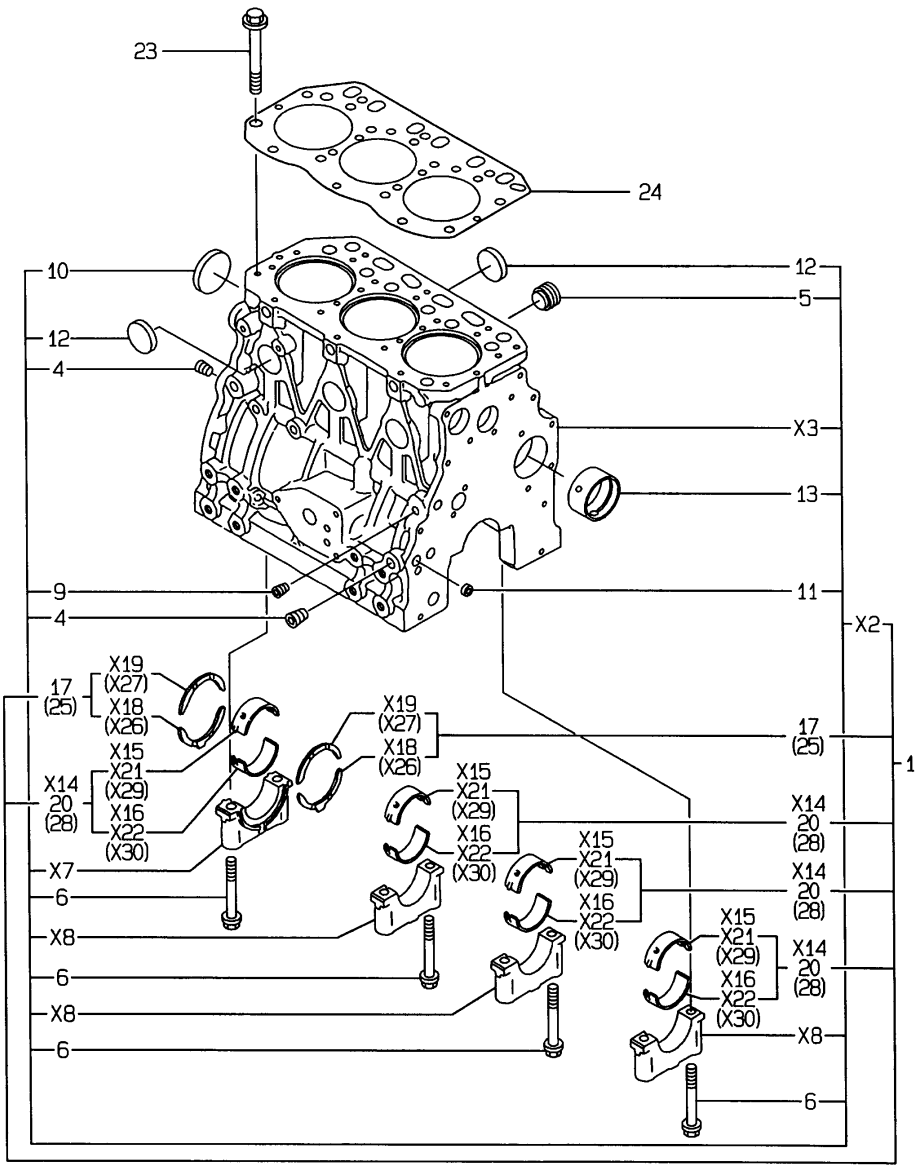
The comments (remarks) on parts that are indicated at the bottom of the illustration are the same symbols as those stated above.

Contents

Fig. No.	Fig. Name	Fig. No.	Fig. Name
3TNE88-ECS			
1.	CYLINDER BLOCK		
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

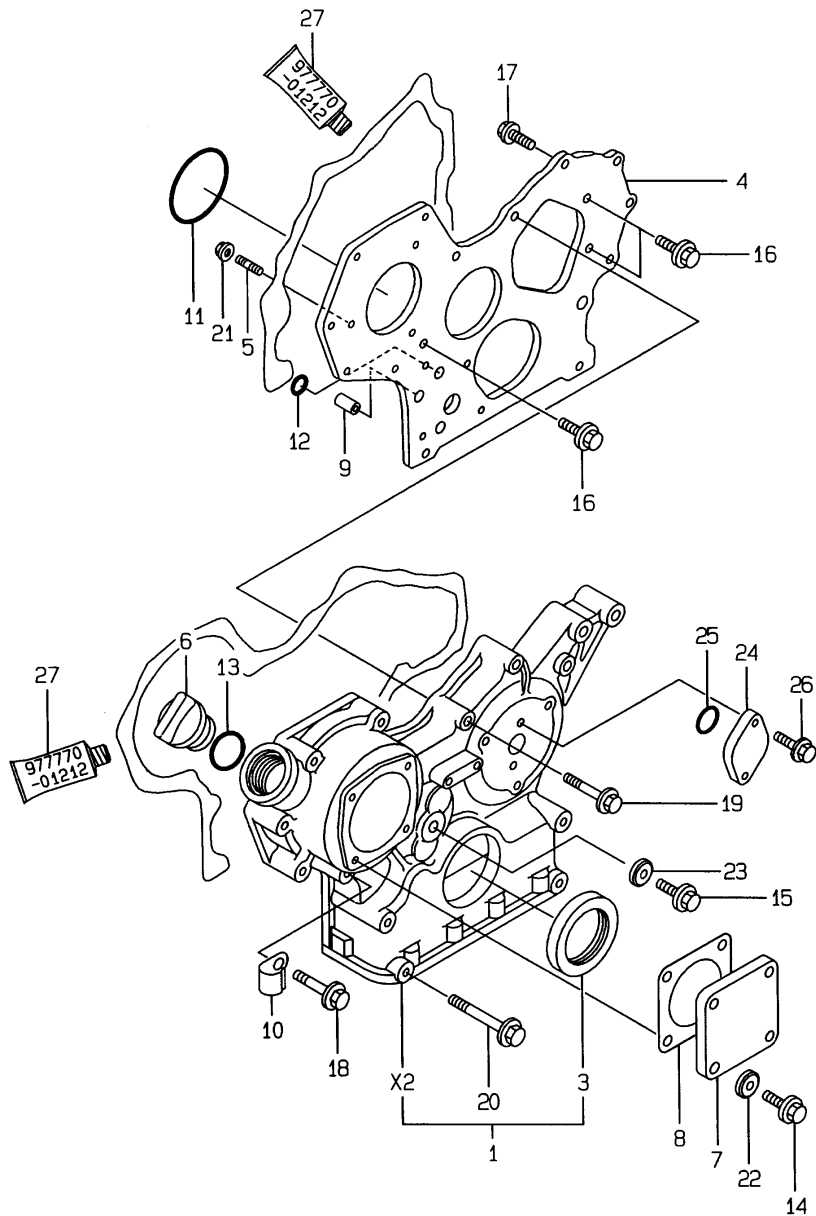


No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	729001-01560	BLOCK ASSY, CYLINDER	1							
4	3	124160-01910	PLUG, PT1/4	3							
5	3	171051-01921	PLUG, NPTF1	1							
6	3	129150-02020	BOLT, METAL CAP	8							
9	3	23871-010000	PLUG, R01	1							
10	3	27231-500000	PLUG 50	1							
11	3	27241-120000	PLUG, 12	2							
12	3	27241-300000	PLUG 30	6							
13	3	129795-02411	BUSH, CAMSHAFT	1							
17	2	129150-02930	BEARING, THRUST	2							
20	2	129001-02930	BEARING, MAIN	4							3
23	1	129150-01200	BOLT, HEAD	14							
24	1	129001-01340	GASKET, HEAD	1							
25	1	129150-02940	BEARING, THRUST 0.25	2							1
28	1	129150-02870	BEARING, 0.25 US	4							2

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

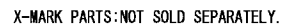
Fig.2. GEAR HOUSING

2.GEAR HOUSING



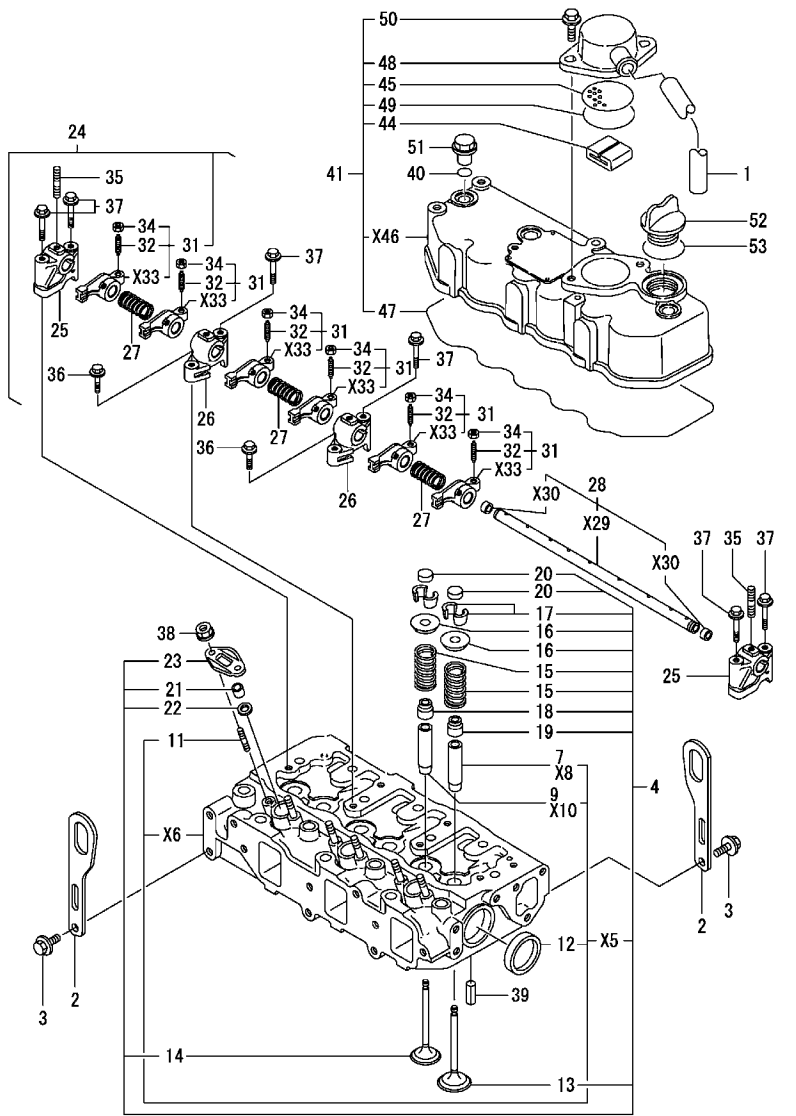
No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	719810-01500	CASE ASSY, GEAR	1							
3	2	129795-01800	SEAL, OIL	1							
4	1	129400-01520	FLANGE, GEAR CASE	1							
5	1	121450-01560	STUD, M8X22	3							
6	1	124160-01751	COVER, FILLER	1							
7	1	124240-01871	COVER	1							
8	1	124240-01883	GASKET	1							
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	129001-91840	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	26106-060162	BOLT, M6X 16 PLATED	2							
27	1	977770-01212	GASKET, LIQUID	1							1

Remarks
(1) OPTIONAL PART.



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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Fig.4. CYLINDER HEAD & BONNET

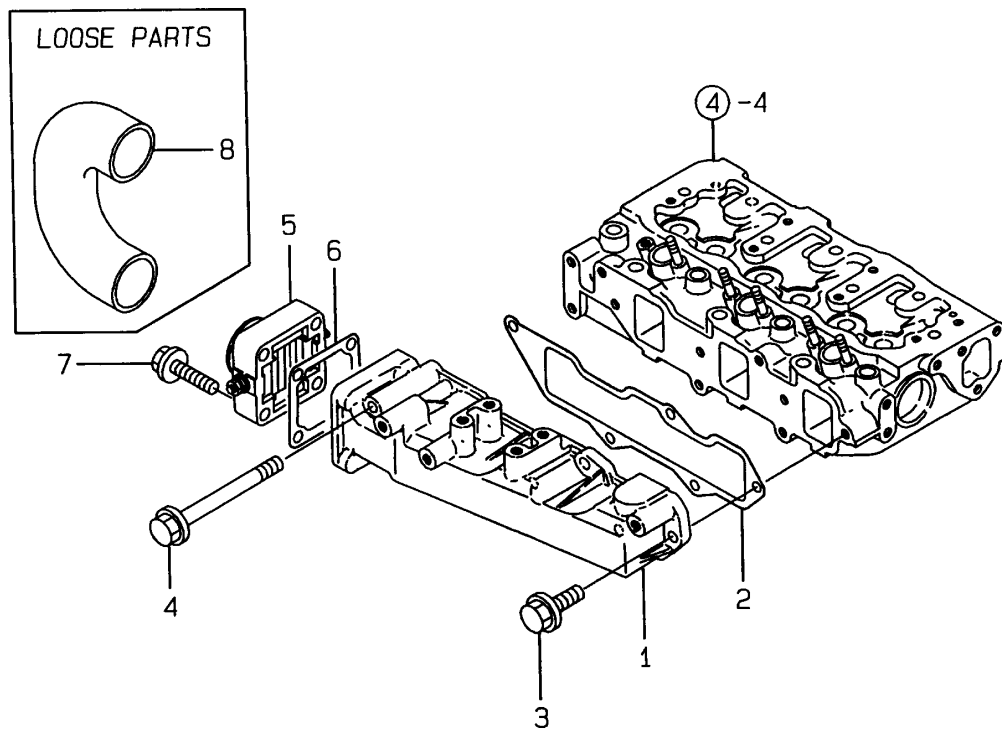


x-MARK PARTS:NOT SOLD SEPARATELY.

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	124736-07900	LIFTER	2							
3	1	26106-080142	BOLT, M8X 14 PLATED	4							
4	1	129051-11700	HEAD ASSY, CYLINDER	1							
7	3	120130-11860	GUIDE, VALVE	3							1
9	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	129155-11241	SHAFT ASSY, ROCKER	1							
25	2	129155-11260	SUPPORT, ROCKER ARM	2							
26	2	129155-11270	SUPPORT, ROCKER ARM	2							
27	2	129150-11280	SPRING	3							
28	2	129150-11290	SHAFT, ROCKER ARM	1							
31	2	729402-11650	ARM ASSY, ROCKER	6							
32	3	129150-11230	SCREW, VALVE ADJUST	6							
34	3	129150-11750	NUT, M8	6							
35	2	26226-080182	STUD, M8X 18	3							
36	1	26106-080252	BOLT, M8X 25 PLATED	2							
37	1	26106-080502	BOLT, M8X 50 PLATED	6							
38	1	26366-060002	NUT, M6	6							
39	1	22351-060012	PIN, SPRING 6.0X12	2							
40	1	24311-000120	O-RING, 1AP12.0	3							
41	1	129100-11350	BONNET ASSY, HEAD	1							
44	2	129150-03070	BAFFLE, BREATHER	1							
45	2	129150-03080	PLATE, BAFFLE	1							
47	2	129150-11310	GASKET, BONNET	1							
48	2	129150-03020	COVER, BREATHER	1							
49	2	24341-000500	O-RING, 1AS50.0	1							
50	2	26106-080162	BOLT, M8X 16 PLATED	2							
51	1	124160-11360	KNOB	3							
52	1	124160-01751	COVER, FILLER	1							
53	1	24311-000320	O-RING, 1AP32.0	1							

Remarks
(1) REPAIR PART.

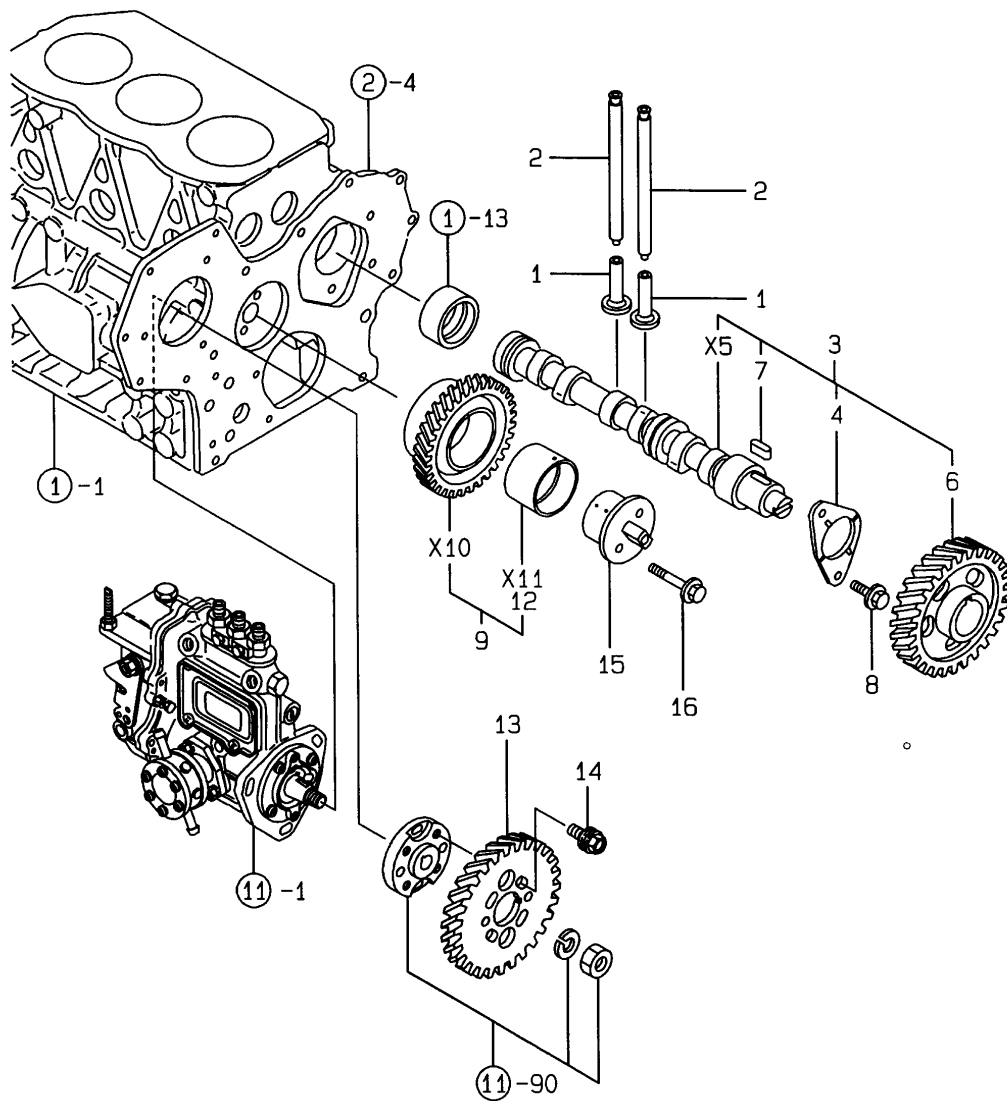
5. SUCTION MANIFOLD



No.	Lev.	Parts No.	Description	(A)=3TNE88-ECS	(D)=	I	R
				(B)= (C)=	(E)= (F)=		
				(A)	(B)	Q'ty	
				(C)	(D)	(E)	(F)
1	1	129001-12100	MANIFOLD, AIR INTAKE	1			
2	1	129001-12110	GASKET, MANIFOLD	1			
3	1	26106-080202	BOLT, M8X 20 PLATED	4			
4	1	26106-080802	BOLT, M8X 80 PLATED	1			
5	1	129120-77501	HEATER	1			
6	1	129150-77511	GASKET	1			
7	1	26106-080352	BOLT, M8X 35 PLATED	4			
8	1	129619-12210	PIPE, AIR INTAKE	1			

[illegible]

7. CAMSHAFT & DRIVING GEAR



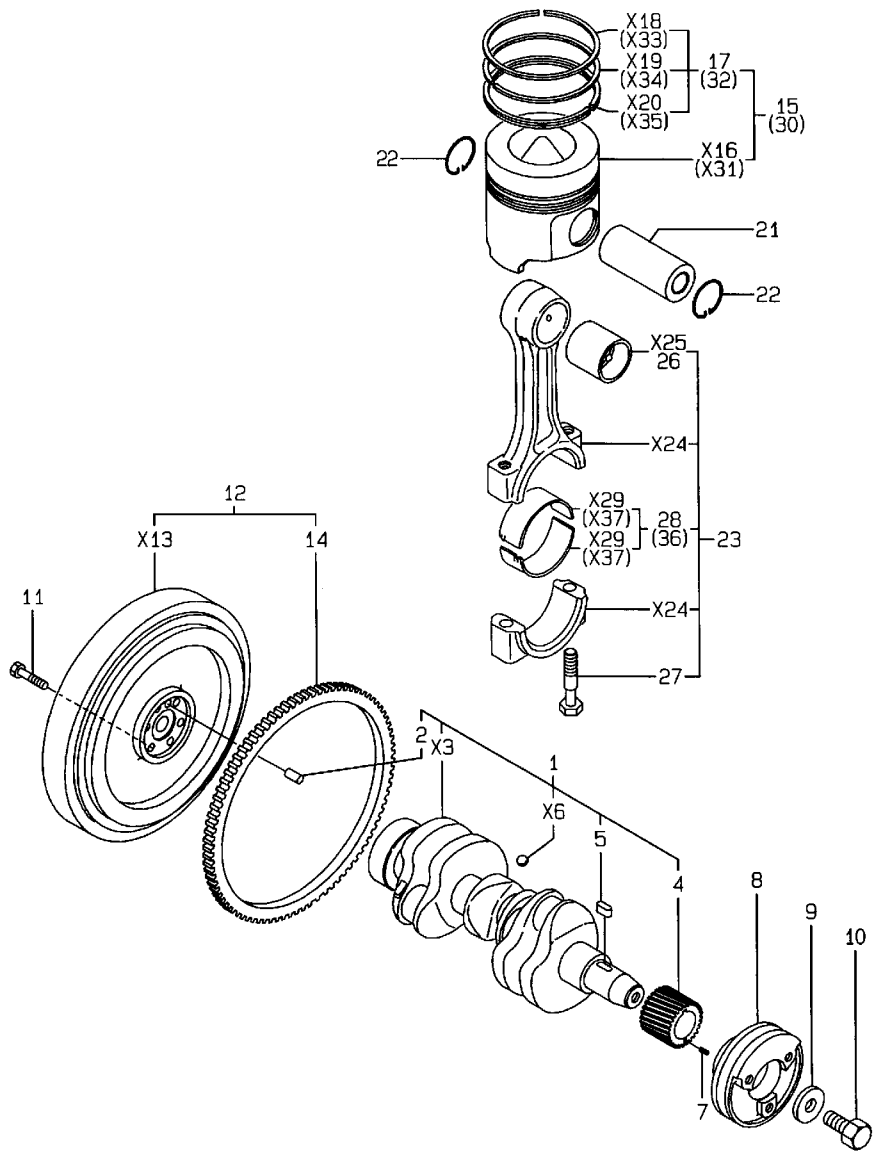
				(A)=3TNE88-ECS (B)= (C)=					(D)= (E)= (F)=		
No.	Lev.	Parts No.	Description	(A)	(B)	(C)	(D)	(E)	(F)	I	R
1	1	129150-14200	TAPPET	6							
2	1	129150-14400	ROD, PUSH L=178	6							
3	1	129129-14580	CAMSHAFT ASSY	1							
4	2	129150-02450	BEARING, THRUST	1							
6	2	129150-14101	GEAR, CAMSHAFT	1							
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	129150-25930	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.

N:Old $\xleftrightarrow[\text{No}]{\text{Yes}}$ New, Q:Old $\xleftrightarrow[\text{Yes}]{\text{No}}$ New, R:Old $\xleftrightarrow[\text{Yes}]{\text{No}}$ New, S:Old $\xleftrightarrow[\text{No}]{\text{Yes}}$ New, W:Add, Z:Discontinued, F:Interchangeable by set, K:Q'ty Change
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Fig.8. CRANKSHAFT & PISTON

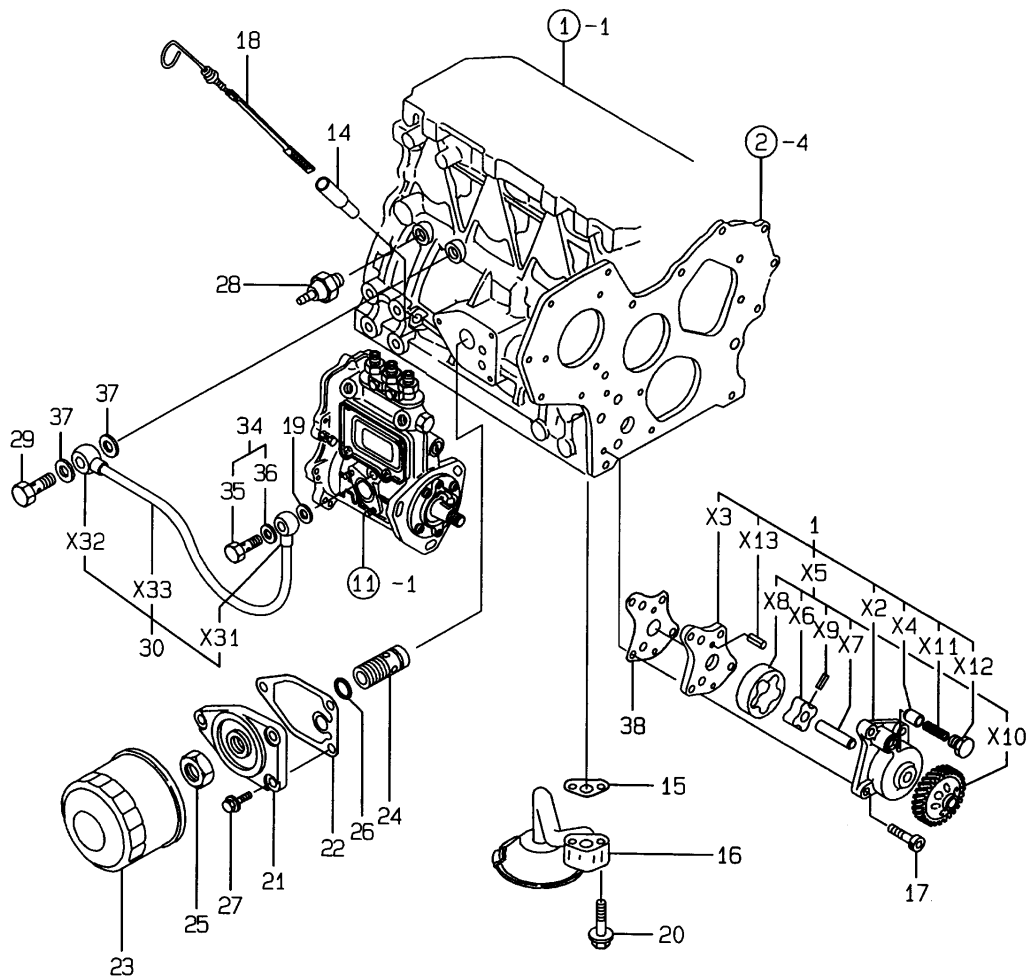
8.CRANKSHAFT & PISTON



No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129001-21000	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

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

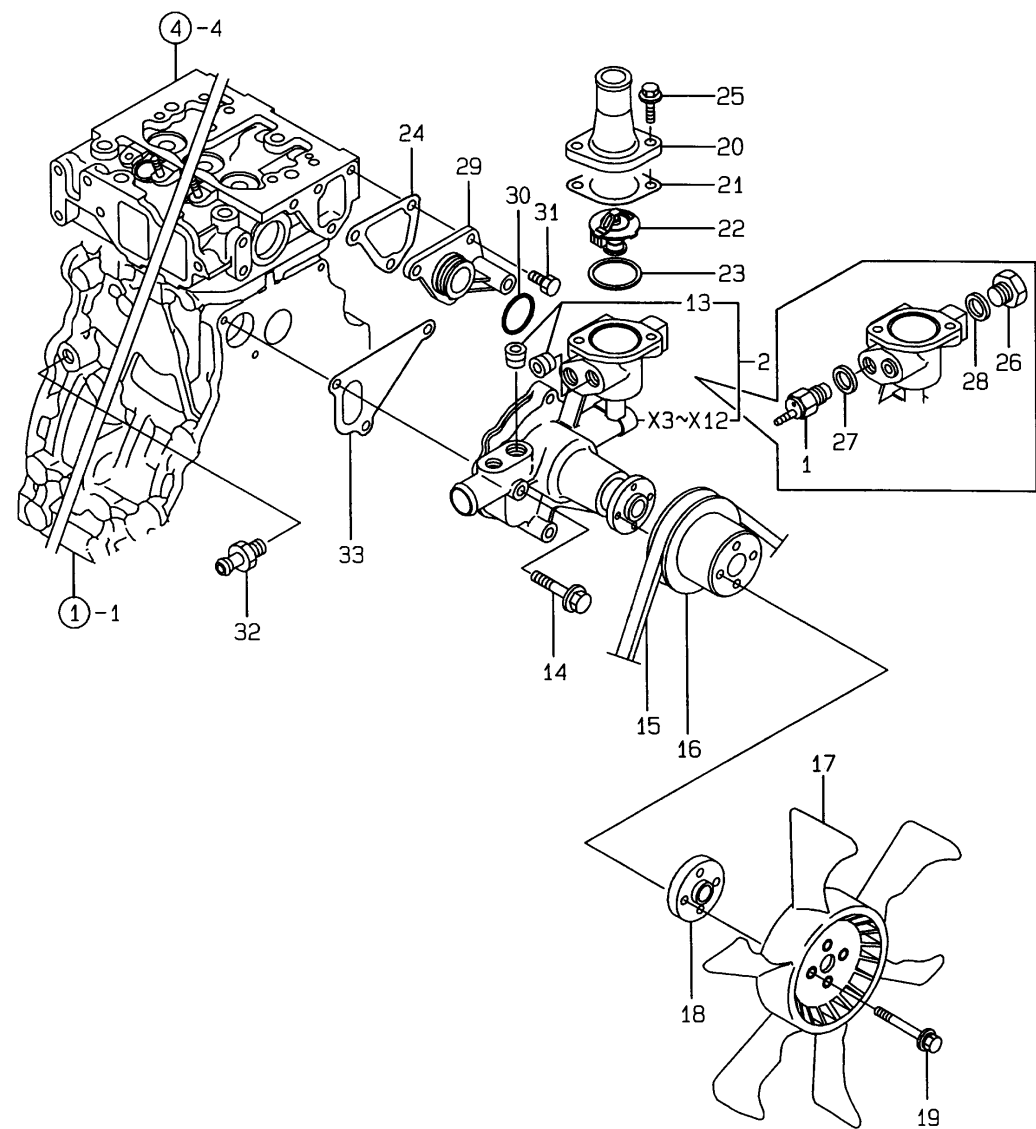
9.LUB.OIL SYSTEM



No.	Lev.	Parts No.	Description	(A)=3TNE88-ECS	(B)=	(C)=	(D)=	(E)=	(F)=	I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129001-32001	PUMP ASSY, OIL	1							
14	1	121520-34810	GUIDE, DIPSTICK	1							
15	1	129150-35041	GASKET	1							
16	1	129100-35301	PIPE ASSY, OIL INLET	1							
17	1	26450-060252	BOLT, M6X 25	4							
18	1	129136-34800	DIPSTICK, OIL	1							
19	1	22190-080003	WASHER, SEAL 8	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	124160-39450	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	22190-080003	WASHER, SEAL 8	1							
37	1	23414-100000	GASKET, 10X1.0	2							
38	1	129150-32020	GASKET, PUMP	1							

Fig.10. COOLING WATER SYSTEM

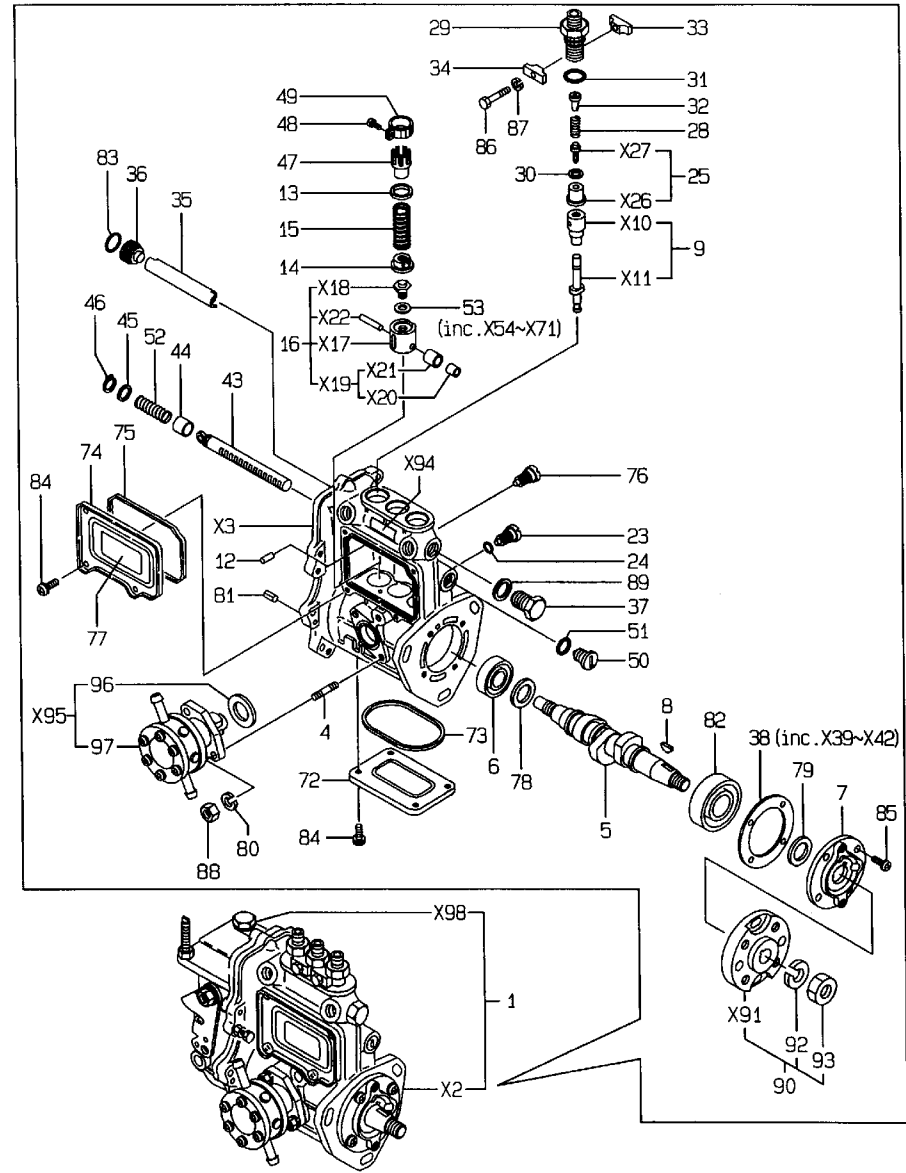
10.COOLING WATER SYSTEM



No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	121250-44901	SWITCH, 110	1							
2	1	129001-42002	PUMP ASSY, WATER	1							
13	2	23871-030000	PLUG, R03	2							
14	1	26106-080602	BOLT, M8X 60 PLATED	3							
15	1	25132-003800	V-BELT, A38	1							
16	1	129556-42350	V-PULLEY, 96	1							
17	1	129335-44740	FAN, COOLING D335	1							
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	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	121450-42450	PLUG, M16	1							
27	1	124465-44950	GASKET, 16	1							
28	1	124465-44950	GASKET, 16	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	121550-49111	JOINT, PT1/4	1							
33	1	129100-42020	GASKET, WATER PUMP	1							

Fig.11. FUEL INJECTION PUMP

11.FUEL INJECTION PUMP

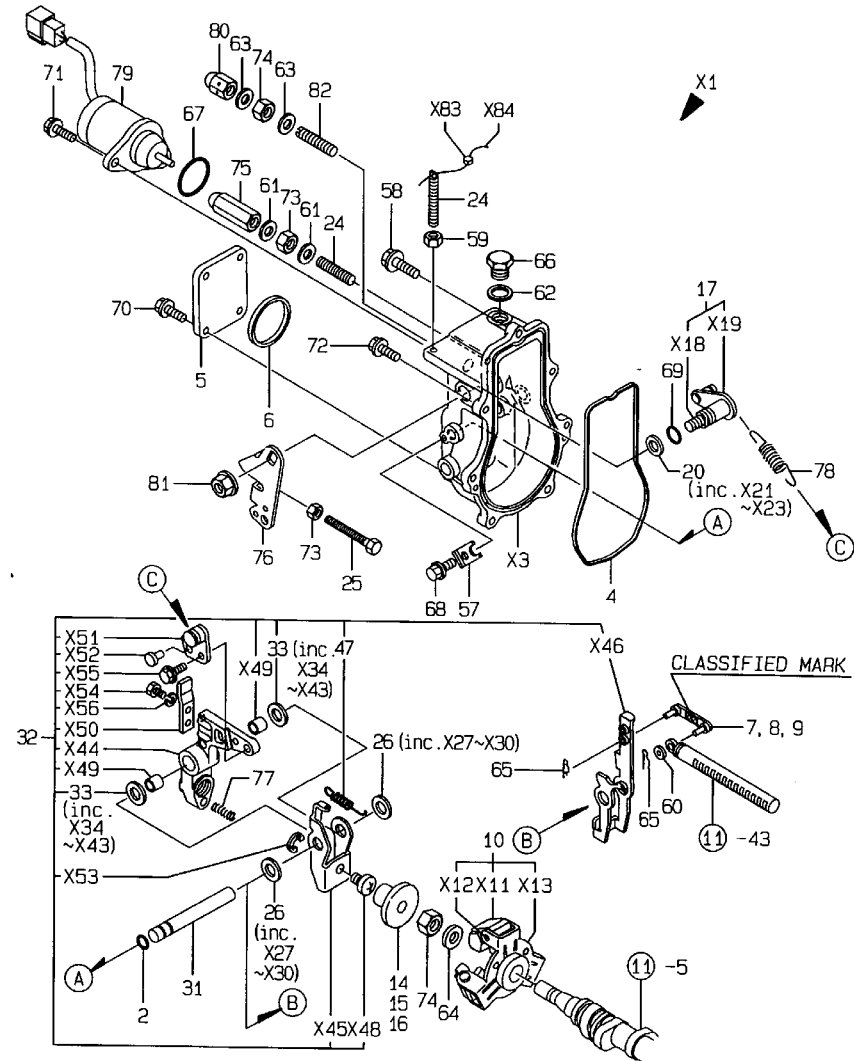


Remarks
(1)GOVERNOR ASSY(FIG.12)IS
INCORPORATED IN THIS FUEL
INJECTION PUMP ASSY(REF.NO.1)

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	729209-51460	PUMP ASSY, INJECTION	1							1
4	3	129155-51020	STUD	2							
5	3	129171-51040	CAMSHAFT	1							
6	3	129155-51050	BEARING, 17BM001D	1							
7	3	129208-51060	SUPPORT	1							
8	3	122710-51090	KEY	1							
9	3	129470-51101	PLUNGER ASSY	3							
12	3	129155-51140	PIN	3							
13	3	174307-51170	RETAINER, SPRING A	3							
14	3	129155-51180	RETAINER, SPRING	3							
15	3	124950-51190	SPRING, PLUNGER	3							
16	3	129155-51200	TAPPET ASSY	3							
23	3	129155-51270	STOPPER, TAPPET	3							
24	3	129155-51280	O-RING, S6	3							
25	3	129209-51300	VALVE ASSY, DELIVERY	3							
28	3	129573-51330	SPRING, DELIVERY	3							
29	3	129573-51340	RETAINER	3							
30	3	124550-51350	GASKET, DELIVERY	3							
31	3	124550-51370	O-RING	3							
32	3	129573-51370	STOPPER, VALVE	3							
33	3	129155-51380	STOPPER	2							
34	3	129155-51390	STOPPER	2							
35	3	129155-51400	DEFLECTOR	1							
36	3	129155-51410	BOLT	1							
37	3	129155-51420	PLUG, M16	1							
38	3	129155-51450	SHIM SET, ADJUSTING	1							
43	3	129155-51500	RACK, CONTROL	1							
44	3	129155-51521	BUSH, RACK	1							
45	3	129155-51530	SPACER	1							
46	3	129155-51540	CIRCLIP	1							
47	3	129155-51550	PINION, CONTROL	3							
48	3	122117-51560	SCREW	3							
49	3	174307-51560	PINION	3							
50	3	129155-51570	PLUG, M12	1							
51	3	129155-51580	O-RING	1							
52	3	129155-51591	SPRING, RACK	1							
53	3	129155-51600	SHIM SET, ADJUSTING	3							
72	3	129155-51700	COVER	1							
73	3	129155-51710	GASKET	1							
74	3	129155-51750	COVER	1							
75	3	129155-51760	GASKET	1							
76	3	129155-51790	STOOPER, RACK	1							
77	3	129156-51910	LABEL, CAUTION	1							
78	3	129155-51930	SPACER, T=3.25	1							
79	3	129155-51940	SPACER, T=1.5	1							
80	3	22217-060000	WASHER, SPRING 6	2							
81	3	22351-050010	PIN, SPRING 5.0X10	2							
82	3	24101-063034	BEARING, BALL 6303	1							
83	3	24341-000160	O-RING, 1AS16.0	1							
84	3	26022-050102	SCREW, M5X10	8							
85	3	26022-060162	SCREW, M6X16	4							

Fig.12. GOVERNOR

12. GOVERNOR

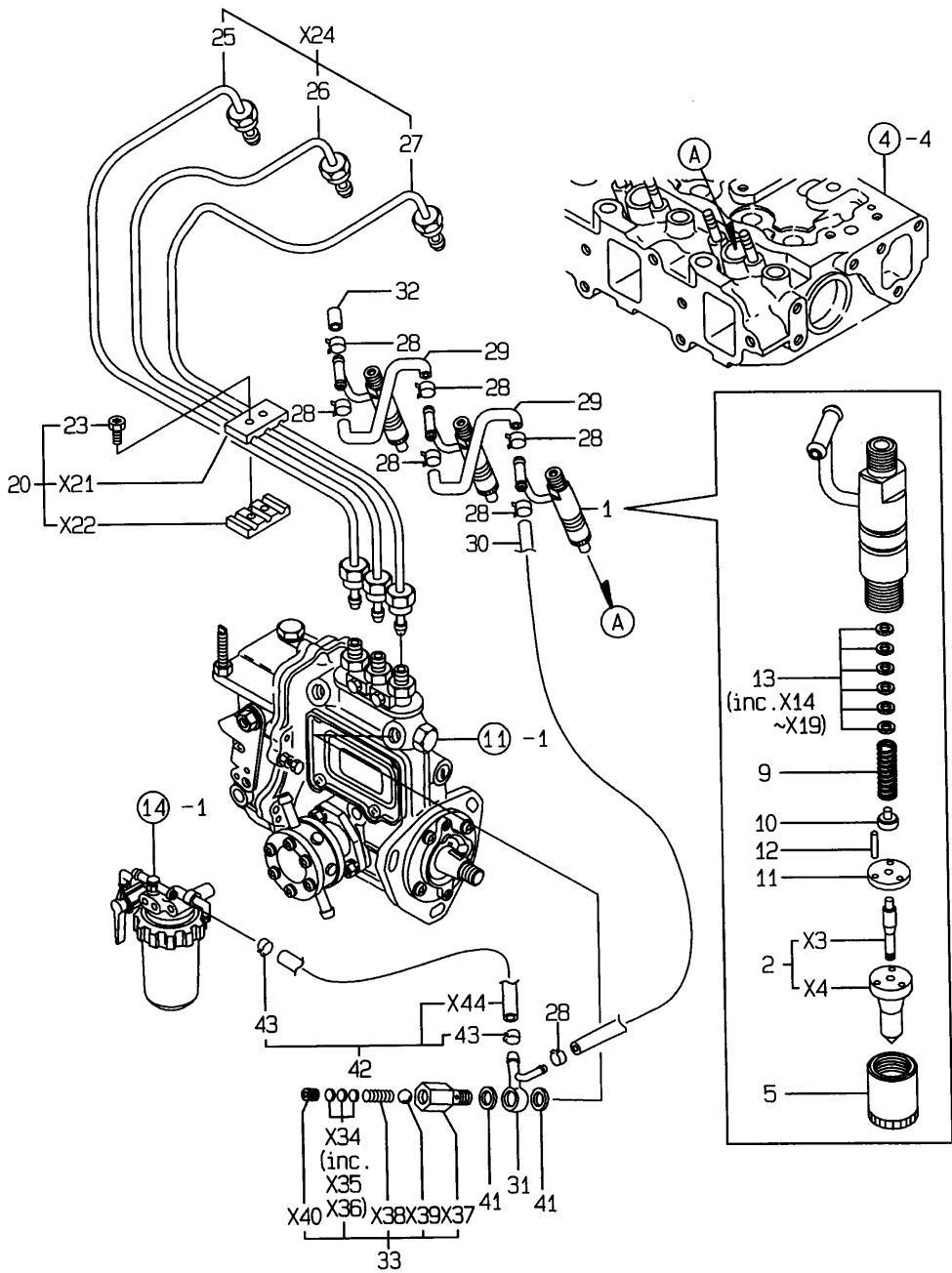


Remarks
(1) SELECTIVE PARTS: CERTAIN THE CLASSIFICATION MARK, THEN PLACE YOUR ORDER.(REFER TO ILLUSTRATION).
(2) SELECTIVE PARTS.
* THIS FIGURE(GOVERNOR ASSY)IS INCORPORATED IN THE FUEL INJECTION PUMP ASSY(FIG.11).

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	129052-61050	GASKET	1							
5	3	129052-61060	COVER, GOVERNOR CASE	1							
6	3	129052-61070	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	129155-61201	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	SPACER	1							
24	3	129155-61450	BOLT, LIMITER	2							
25	3	129155-61460	BOLT, IDLE	1							
26	3	129155-61480	SPACER ASSY	2							
31	3	129052-61390	SHAFT	1							
32	3	129052-61500	LEVER ASSY, GOVERNOR	1							
33	4	174307-51700	SHIM SET	2							
47	4	129052-61540	SPRING, SET	1							
57	3	119660-61901	RETAINER, SHAFT	1							
58	3	129155-61950	BOLT	1							
59	3	124550-66370	NUT, M6	1							
60	3	22117-040000	WASHER, 4	1							
61	3	22190-060003	SEAL WASER 6	2							
62	3	22190-100002	WASHER, SEAL 10	1							
63	3	22190-120002	WASHER, SEAL 12	2							
64	3	22287-120000	WASHER, 12	1							
65	3	22372-040000	PIN, SNAP 4	2							
66	3	23887-100002	PLUG, 10	1							
67	3	24341-000280	O-RING, 1AS28.0	1							
67-1	3	158552-61900	O-RING	1							N
(A=EXXXXX)											
68	3	26106-060102	BOLT, M6X 10 PLATED	1							
69	3	129155-61830	O-RING, S10	1							
70	3	26106-060102	BOLT, M6X 10 PLATED	4							
71	3	26106-060142	BOLT, M6X 14 PLATED	2							
72	3	26106-060202	BOLT, M6X 20 PLATED	6							
73	3	26756-060002	NUT, LOCK M6	2							
74	3	26776-120002	NUT, LOCK M12	2							
75	3	119600-66840	NUT, CAP	1							
76	2	129100-61440	LEVER, CONTROL	1							
77	2	129100-61650	SPRING, CONTROLLER	1							
78	2	171353-61700	SPRING, GOVERNOR	1							
79	2	119653-77950	SOLENOID, STOP	1							
80	2	129100-61930	NUT, CAP	1							
81	2	26366-080002	NUT, M8	1							
82	2	129155-61470	BOLT, CONTROL	1							

Fig.13. FUEL INJECTION VALVE

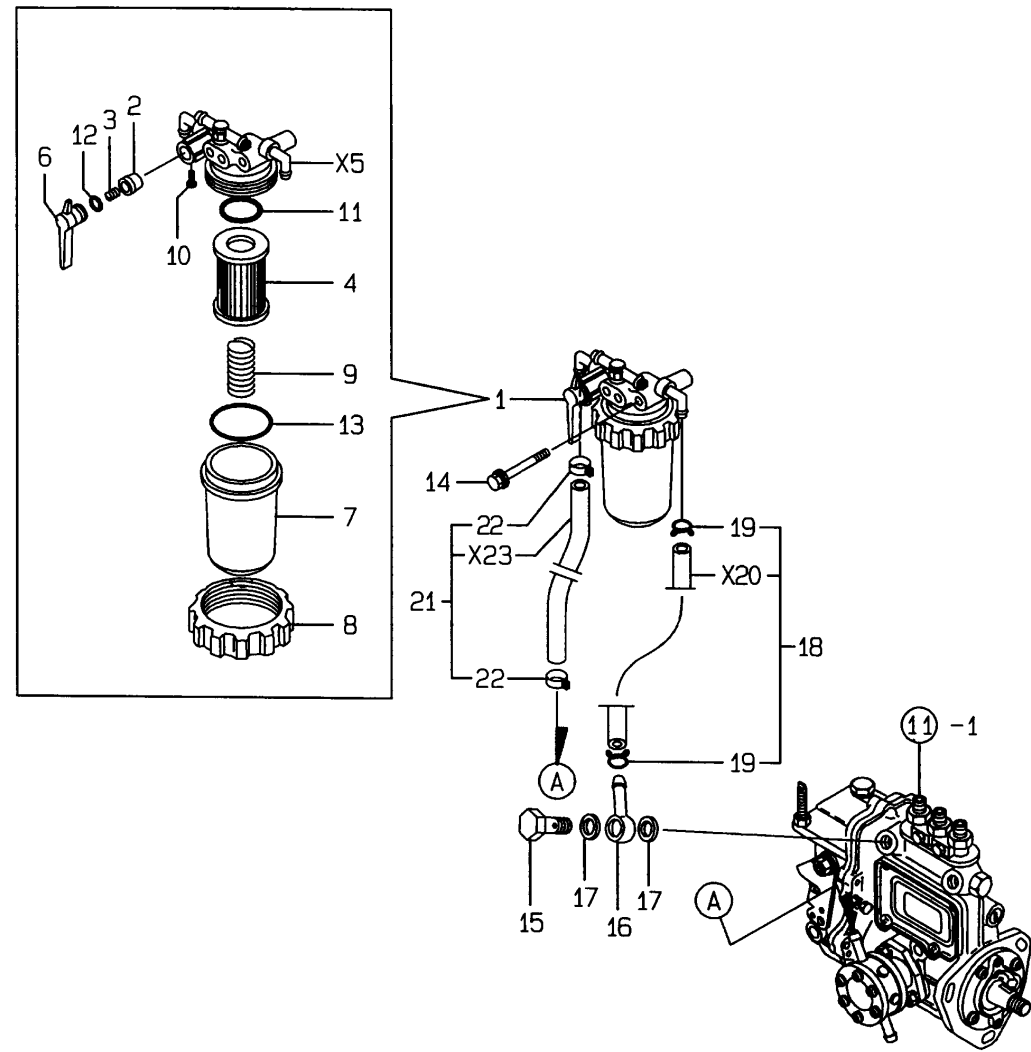
13.FUEL INJECTION VALVE



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 D16.95	3							
9	2	114250-53120	SPRING, NOZZLE	3							
10	2	114250-53130	SEAT, SPRING	3							
11	2	114250-53140	PLATE	3							
12	2	114250-53210	PIN	6							
13	2	114250-53400	SHIM SET	3							
20	1	119305-59120	RETAINER, PIPE	2							
23	2	129150-59131	BOLT, M4X14	2							
25	2	129052-59810	PIPE ASSY, INJECTION	1							
26	2	129052-59820	PIPE ASSY, INJECTION	1							
27	2	129052-59830	PIPE ASSY, INJECTION	1							
28	1	124066-59100	CLIP, HOSE 8	7							
29	1	121250-59550	PIPE, FUEL D8X120	2							
30	1	119840-59560	PIPE, FUEL RETURN	1							
31	1	119840-59570	JOINT	1							
32	1	129150-59580	CAP	1							
33	1	129100-59951	VALVE ASSY, CHECK	1							
41	1	23414-120000	GASKET, 12X1.0	2							
42	1	129210-59120	PIPE ASSY, FUEL	1							
43	2	124766-59050	CLIP, HOSE 12	2							

Fig.14. FUEL LINE

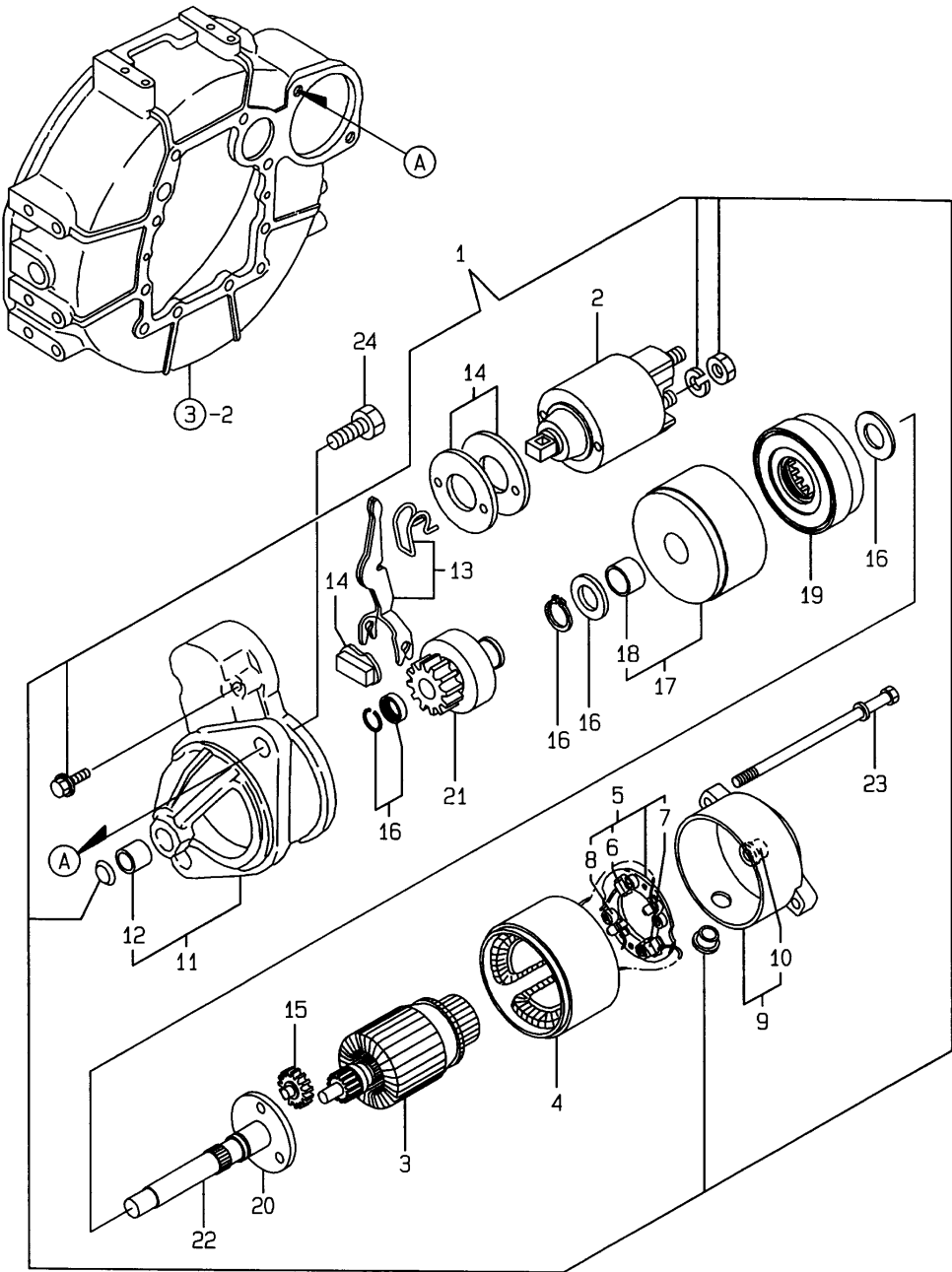
14.FUEL LINE



No.	Lev.	Parts No.	Description	Q'ty						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	22190-120002	WASHER, SEAL 12	2							
18	1	129210-59020	PIPE ASSY, FUEL	1							
19	2	124766-59050	CLIP, HOSE 12	2							
21	1	129210-59120	PIPE ASSY, FUEL	1							
22	2	124766-59050	CLIP, HOSE 12	2							

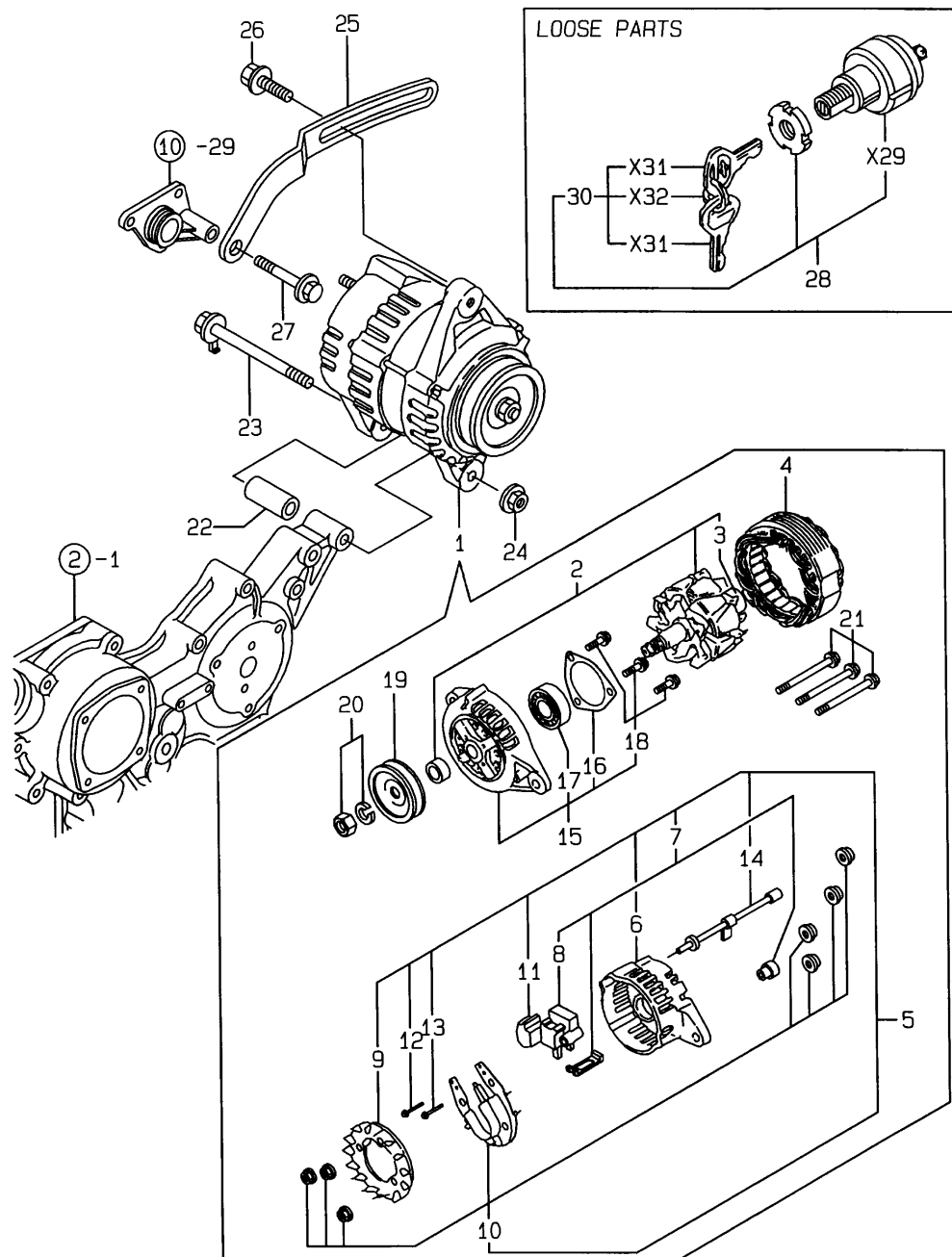
Fig.15. STARTING MOTOR

15.STARTING MOTOR



No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129698-77010	STARTER, 12V1.2KW	1							
2	2	124298-77020	SWITCH, MAGNETIC	1							
3	2	129698-77100	ARMATURE ASSY	1							
4	2	129698-77110	YOKE ASSY	1							
5	2	129698-77120	HOLDER ASSY, BRUSH	1							
6	3	129698-77140	BRUSH SET	1							
7	3	129698-77130	BRUSH	2							
8	3	129698-77150	SPRING, BRUSH	4							
9	2	129698-77160	COVER ASSY	1							
10	3	129698-77170	BEARING	1							
11	2	129698-77260	CASE ASSY	1							
12	3	X2114535200	METAL, STARTER	1							
13	2	129698-77270	LEVER SET, SHIFT	1							
14	2	129698-77280	COVER KIT	1							
15	2	129698-77240	GEAR	3							
16	2	129698-77250	WASHER SET	1							
17	2	129698-77180	BRACKET	1							
18	3	129698-77190	BRACKET	1							
19	2	129698-77200	GEAR, INTERNAL	1							
20	2	129698-77210	BRACKET	1							
21	2	129698-77220	PINION ASSY	1							
22	2	129698-77230	SHAFT	1							
23	2	124195-77770	BOLT, THROUGH	2							
24	1	26116-120252	BOLT, M12X 25 PLATED	2							

16. GENERATOR

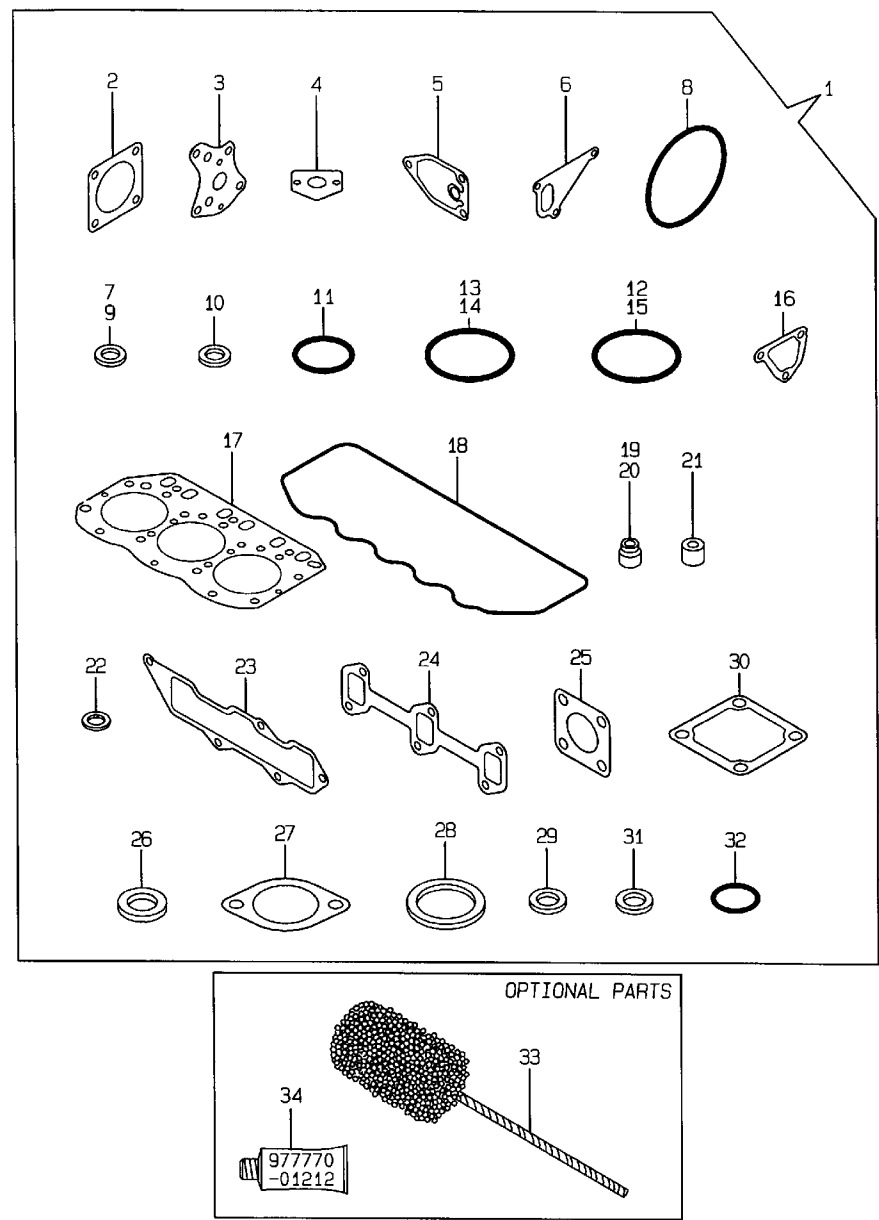


No.	Lev.	Parts No.	Description	(A)=3TNE88-ECS			(D)=		
				(B)=	(C)=	(E)=	(F)=	(G)=	(H)=
1	1	119836-77200	GENERATOR	1					
2	2	119836-77700	ROTOR ASSY	1					
3	3	119836-77850	BALL BEARING	1					
4	2	119836-77710	STATOR ASSY	1					
5	2	119836-77721	COVER ASSY, REAR	1					
6	3	119836-77730	COVER, REAR	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	129612-77260	NUT, ALTERNATOR	1					
25	1	129100-77330	ADJUSTER	1					
26	1	119810-77340	BOLT, ADJUSTER	1					
27	1	26106-080502	BOLT, M8X 50 PLATED	1					
28	1	933110-00100	SWITCH ASSY, STARTER	1					
30	2	933110-00301	KEY ASSY	1					

OCV10-M65600

Fig.17. GASKET SET

17.GASKET SET



No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	729030-92670	GASKET SET	1							1
2	2	124240-01883	GASKET	1							
3	2	129150-32020	GASKET, PUMP	1							
4	2	129150-35041	GASKET	1							
5	2	129150-35111	GASKET	1							
6	2	129100-42020	GASKET, WATER PUMP	1							
7	2	22190-080002	WASHER, SEAL 6	5							
8	2	121850-51960	O-RING	1							
9	2	22190-080003	WASHER, SEAL 8	2							
10	2	23414-100000	GASKET, 10X1.0	2							
11	2	24311-000160	O-RING, 1AP16.0	3							
12	2	24321-000300	O-RING, 1AG30.0	1							
13	2	24341-000240	O-RING, 1AS24.0	1							
14	2	24341-000250	O-RING, 1AS25.0	1							
15	2	24311-000320	O-RING, 1AP32.0	1							
16	2	129100-49840	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	129001-12110	GASKET, MANIFOLD	1							
24	2	129150-13110	GASKET	1							
25	2	124701-11911	GASKET, SILENCER	1							
26	2	124465-44950	GASKET, 16	2							
27	2	129795-49551	GASKET	1							
28	2	129150-49811	GASKET, THERMOSTAT	1							
29	2	22190-120002	WASHER, SEAL 12	2							
30	2	129150-77511	GASKET	1							
31	2	23414-120000	GASKET, 12X1.0	2							
32	2	24311-000120	O-RING, 1AP12.0	3							
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
114250-53080	13	5
114250-53120	13	9
114250-53130	13	10
114250-53140	13	11
114250-53210	13	12
114250-53400	13	13
119131-18320	6	5
119305-59120	13	20
119600-66840	12	75
119620-01750	3	3
119625-11870	4	21
	17	21
119625-11880	4	22
	17	22
119625-11900	4	23
119653-77950	12	79
119660-61901	12	57
119810-77340	16	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
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	30
119840-59570	13	31
119865-21600	8	14
120130-11860	4	7
121023-01550	2	24

Parts No.	Fig. No.	Ref. No.
121111-21501	8	11
121250-44901	10	1
121250-59550	13	29
121400-11340	4	18
	17	19
121450-01560	2	5
121450-42450	10	26
121520-34810	9	14
121550-23200	8	27
121550-49111	10	32
121850-21680	8	10
121850-51960	2	11
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122117-51560	11	48
122710-51090	11	8
124066-59100	13	28
124160-01751	2	6
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124160-01910	1	4
124160-11360	4	51
124160-39140	9	29
124160-39450	9	28
124195-77770	15	23
124240-01871	2	7
124240-01883	2	8
	17	2
124298-77020	15	2
124460-11340	4	19
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124465-44950	10	27
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	17	28
124550-51350	11	30
124550-51370	11	31
124550-59820	9	35
124550-59830	9	34
124550-66370	12	59
124574-44761	10	18
124701-11911	6	7
	17	25
124736-07900	4	2
124766-59050	13	43
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	22	
124950-51190	11	15
129001-01340	1	24
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129001-02930	1	20
129001-12100	5	1
129001-12110	5	2

Parts No.	Fig. No.	Ref. No.
129001-12110	17	23
129001-21000	8	1
129001-22070	8	15
129001-22500	8	17
129001-22930	8	30
129001-22950	8	32
129001-32001	9	1
129001-35300	9	24
129001-42002	10	2
129001-42040	10	29
129001-91840	2	20
129051-11700	4	4
129052-55620	14	1
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129052-59830	13	27
129052-61050	12	4
129052-61060	12	5
129052-61070	12	6
129052-61390	12	31
129052-61500	12	32
129052-61540	12	47
129100-01580	3	1
	14	
	8	2
129100-01640	3	15
129100-01730	3	6
129100-01760	3	7
129100-11100	4	13
129100-11110	4	14
129100-11350	4	41
129100-13110	6	1
129100-23910	8	26
129100-25061	7	15
129100-35301	9	16
129100-42020	10	33
	17	6
129100-49840	10	24
	17	16
129100-52100	11	97
129100-55650	14	4
129100-55670	14	6
129100-55680	14	7
129100-55690	14	8
129100-55700	14	9
129100-59951	13	33
129100-61400	12	17
129100-61440	12	76
129100-61650	12	77
129100-61930	12	80

Parts No.	Fig. No.	Ref. No.
129100-77330	16	25
129120-77501	5	5
129129-14580	7	3
129136-34800	9	18
129136-77251	16	23
129150-01200	1	23
129150-02020	1	6
129150-02450	7	4
129150-02870	1	28
129150-02930	1	17
129150-02940	1	25
129150-03020	4	48
129150-03070	4	44
129150-03080	4	45
129150-03100	2	10
129150-11230	4	32
129150-11280	4	27
129150-11290	4	28
129150-11310	4	47
	17	18
129150-11370	4	20
129150-11750	4	34
129150-11810	4	9
129150-13110	6	2
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129150-14101	7	6
129150-14200	7	1
129150-14400	7	2
129150-21200	8	4
129150-23600	8	28
129150-23610	8	36
129150-25101	7	9
129150-25301	7	14
129150-25920	7	12
129150-25930	7	13
129150-32020	9	38
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129150-35041	9	15
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129150-35101	9	21
129150-35111	9	22
	17	5
129150-35151	9	23
129150-35350	9	25
129150-39450	9	30
129150-49811	10	23
	17	28
129150-59131	13	23
129150-59580	13	32
129150-77511	5	6

Parts No. Index

Parts No.	Fig. No.	Ref. No.
129150-77511	17	30
129155-11241	4	24
129155-11260	4	25
129155-11270	4	26
129155-49800	10	22
129155-51020	11	4
129155-51050	11	6
129155-51140	11	12
129155-51180	11	14
129155-51200	11	16
129155-51270	11	23
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129155-51500	11	43
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129155-51700	11	72
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129155-61360	12	16
129155-61430	12	20
129155-61450	12	24
129155-61460	12	25
129155-61470	12	82
129155-61480	12	26
129155-61830	12	69
129155-61950	12	58

Parts No.	Fig. No.	Ref. No.
129156-51910	11	77
129171-51040	11	5
129202-22300	8	21
129208-51060	11	7
129208-54500	11	90
129209-51300	11	25
129209-53000	13	2
129210-59020	14	18
129210-59120	13	42
	14	21
129335-44740	10	17
129350-49560	10	20
129400-01520	2	4
129400-92430	17	33
129470-51101	11	9
129486-01670	3	18
129556-42350	10	16
129573-51330	11	28
129573-51340	11	29
129573-51370	11	32
129612-01600	3	2
129612-77260	16	24
129619-12210	5	8
129698-77010	15	1
129698-77100	15	3
129698-77110	15	4
129698-77120	15	5
129698-77130	15	7
129698-77140	15	6
129698-77150	15	8
129698-77160	15	9
129698-77170	15	10
129698-77180	15	17
129698-77190	15	18
129698-77200	15	19
129698-77210	15	20
129698-77220	15	21
129698-77230	15	22
129698-77240	15	15
129698-77250	15	16
129698-77260	15	11
129698-77270	15	13
129698-77280	15	14
129795-01780	3	17
129795-01800	2	3
129795-01950	2	9
129795-02411	1	13
129795-11120	4	15
129795-11180	4	16
129795-21661	8	9

Parts No.	Fig. No.	Ref. No.
129795-49551	10	21
	17	27
158552-61900	12	67 -1
171051-01921	1	5
171301-01640	3	8
171340-21580	8	12
171340-21650	8	8
171350-03090	4	1
171353-61700	12	78
174307-51170	11	13
174307-51560	11	49
174307-51700	12	33
22117-040000	12	60
22190-060003	12	61
22190-080002	2	22
		23
	17	7
22190-080003	9	19
		36
	17	9
22190-100002	12	62
22190-120002	12	63
	14	17
	17	29
22190-160002	11	89
22217-050000	11	87
22217-060000	11	80
22217-120000	11	92
22252-000260	8	22
22287-120000	12	64
22351-040010	8	7
22351-050010	11	81
22351-060012	4	39
22372-040000	12	65
22512-070140	7	7
	8	5
23414-100000	9	37
	17	10
23414-120000	13	41
	17	31
23871-010000	1	9
23871-030000	10	13
23887-100002	12	66
24101-063034	11	82
24311-000120	4	40
	17	32
24311-000160	2	12
	9	26
	14	11
	17	11

Parts No.	Fig. No.	Ref. No.
24311-000320	2	13
	4	53
	17	15
24311-240100	14	12
24321-000300	10	30
	17	12
24321-000650	14	13
24341-000160	11	83
24341-000240	2	25
	17	13
24341-000250	3	10
	17	14
24341-000280	12	67
24341-000500	4	49
25132-003800	10	15
26014-060252	10	19
26014-080702	14	14
26022-050102	11	84
26022-060162	11	85
26106-060102	12	68
		70
26106-060142	12	71
26106-060162	2	26
26106-060202	12	72
26106-080122	2	14
26106-080142	4	3
	7	8
26106-080162	2	15
		16
	3	11
	4	50
	10	31
26106-080202	2	17
	5	3
	9	27
	10	25
26106-080252	3	12
	4	36
26106-080352	3	19
	5	7
	9	20
26106-080452	2	18
	3	13
		13 -1
	7	16
26106-080502	3	21
	4	37
	16	27
26106-080552	2	19
26106-080602	10	14

Parts No. Index

Parts No.	Fig. No.	Ref. No.
26106-080802	5	4
	6	4
26116-050302	11	86
26116-120252	15	24
26206-100252	3	4
26206-100302	3	5
26216-060202	4	11
26216-080802	6	6
26226-080182	4	35
26366-060002	4	38
26366-080002	2	21
	6	3
	12	81
26450-060252	9	17
26716-060002	11	88
26716-120002	11	93
26756-060002	12	73
26776-120002	12	74
27231-500000	1	10
27241-120000	1	11
27241-300000	1	12
27241-400000	4	12
27310-080001	4	17
719810-01500	2	1
729001-01560	1	1
729030-92670	17	1
729209-51460	11	1
729209-53100	13	1
729402-11650	4	31
729402-23100	8	23
933110-00100	16	28
933110-00301	16	30
977770-01212	2	27
	3	20
	17	34
X2114535200	15	12

Parts No.	Fig. No.	Ref. No.
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Parts No.	Fig. No.	Ref. No.
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Parts No.	Fig. No.	Ref. No.
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