

0CW10-M49800EN

P R E F A C E

1. This parts catalog is the 1st edition of 3TNV70-NPR for SANPIERANA.

Pub.No. : 0CW10-G49800

Published : March, 2009

2. Model name

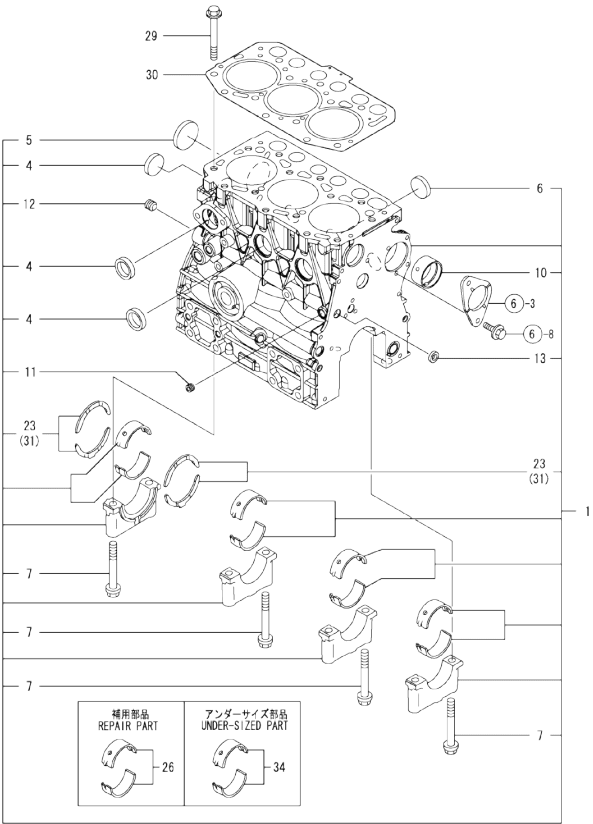
Engine model	Vehicle	Vehicle made by
3TNV70-NPR	EXCAVATOR	SANPIERANA

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0CW10-M49800

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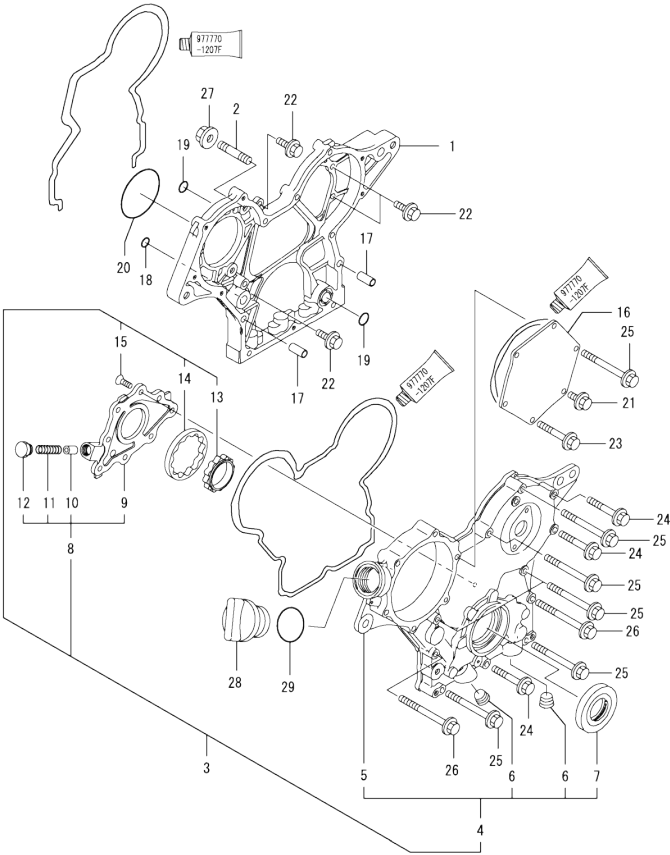
Fig.1. CYLINDER BLOCK



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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	719515-01561	BLOCK ASSY, CYLINDER	1							
4	2	105311-01090	PLUG, 30	4							
5	2	119623-01250	PLUG, 45	1							
6	2	119285-01990	PLUG, 25	3							
7	2	119620-02020	BOLT, METAL CAP	8							
10	2	119717-02411	BUSH, CAMSHAFT	1							
11	2	124060-01050	PLUG, PT1/8	1							
12	2	124160-01910	PLUG, PT1/4	1							
13	2	27241-120000	PLUG, 12	1							
23	2	119717-02930	BEARING, THRUST	2							
26	1	719717-02901	BEARING, MAIN	4							1
29	1	119515-01200	BOLT, HEAD	14							
30	1	119515-01330	GASKET, HEAD	1							
31	1	119810-02941	BEARING, THRUST 0.25	2							2
34	1	719717-02911	BEARING, 0.25 US	4							3

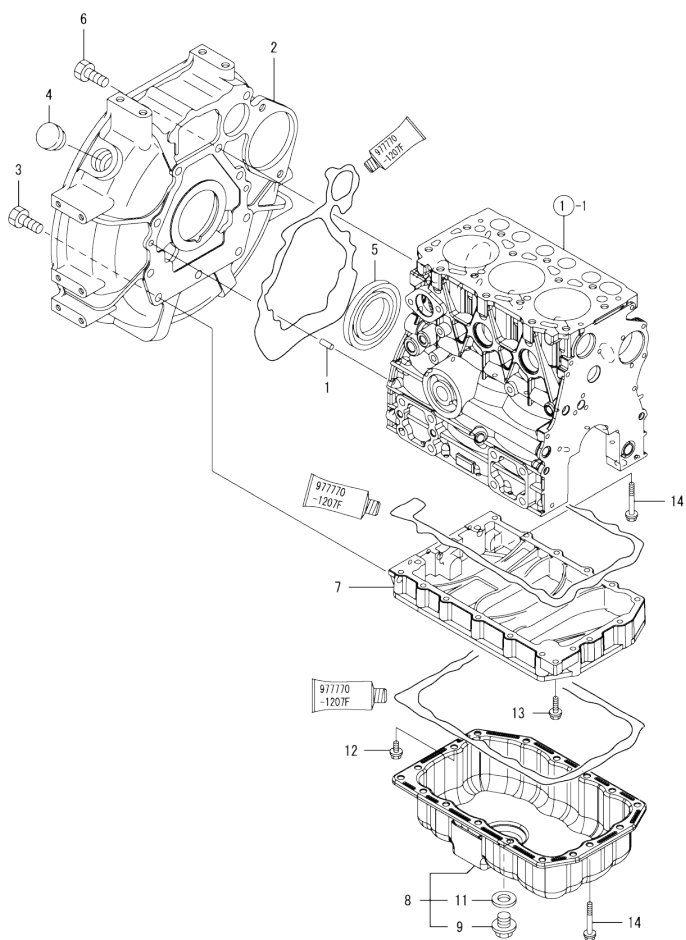
Fig.2. GEAR HOUSING



(A)=3TNV70-NPR
(B)=
(C)=

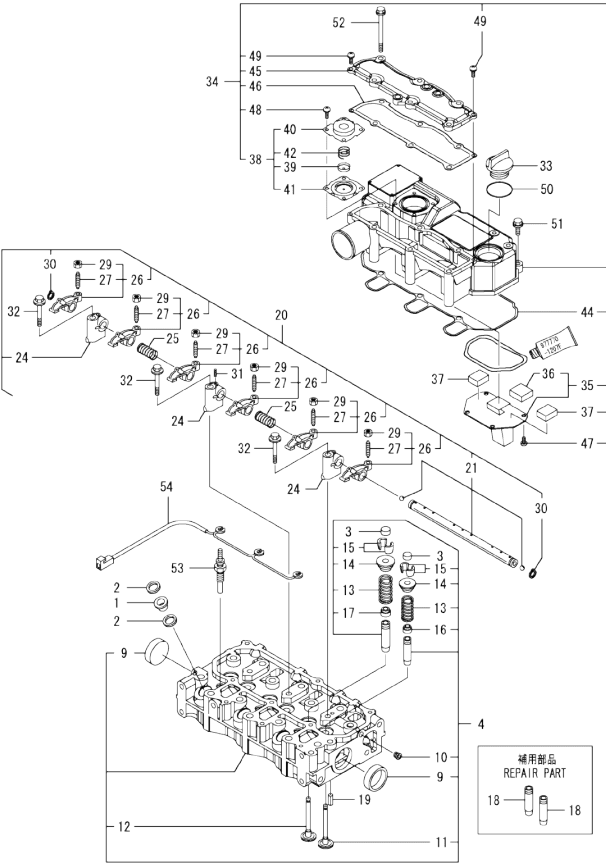
(D)=
(E)=
(F)=

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	119717-01501	CASE, GEAR	1							
2	1	119717-01570	STUD	3							
3	1	119734-01590	COVER ASSY,GEAR CASE	1							
4	2	719734-01500	COVER ASSY,GEAR CASE	1							
5	3	119717-01521	COVER, GEAR CASE	1							
6	3	23876-030000	PLUG, R03	2							
7	3	119717-01800	SEAL, OIL	1							
8	2	119717-32100	COVER ASSY	1							
9	3	119717-32080	COVER	1							
10	3	129900-32130	VALVE, RELIEF	1							
11	3	129001-32320	SPRING	1							
12	3	129001-32330	PLUG	1							
13	2	119717-32110	ROTOR, INNER	1							
14	2	119717-32120	ROTOR, OUTER	1							
15	2	119802-32130	SCREW, M6X16	8							
16	1	119717-01750	COVER	1							
17	1	119660-01911	PIPE, KNOCK	4							
18	1	119624-32040	O-RING, P12.0	1							
19	1	119717-32050	O-RING, P17.0	3							
20	1	121850-51960	O-RING	1							
21	1	26106-060122	BOLT, M6X 12 PLATED	1							
22	1	26106-060162	BOLT, M6X 16 PLATED	4							
23	1	26106-060402	BOLT, M6X 40 PLATED	4							
24	1	26106-060402	BOLT, M6X 40 PLATED	3							
25	1	26106-060602	BOLT, M6X 60 PLATED	7							
26	1	26106-060652	BOLT, M6X 65 PLATED	2							
27	1	26306-080002	NUT, M8	3							
28	1	124160-01751	COVER, FILLER	1							
29	1	24311-000320	O-RING, 1AP32.0	1							



No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129100-01580	PIN, M8X16	2							
2	1	119515-01601	HOUSING, FLYWHEEL	1							
3	1	121120-01620	BOLT, M10X28	3							
4	1	119620-01750	CAP	1							
5	1	124085-02220	SEAL, OIL	1							
6	1	26206-100252	BOLT, M10X 25 PLATED	7							
7	1	119515-01720	SPACER, OIL SUMP	1							
8	1	119540-01770	SUMP ASSY, OIL	1							
9	2	105425-01690	PLUG, 16	1							
11	2	22190-160002	WASHER, SEAL 16	1							
12	1	26106-060122	BOLT, M6X 12 PLATED	1							
13	1	26106-060252	BOLT, M6X 25 PLATED	1							
14	1	26106-060452	BOLT, M6X 45 PLATED	17							

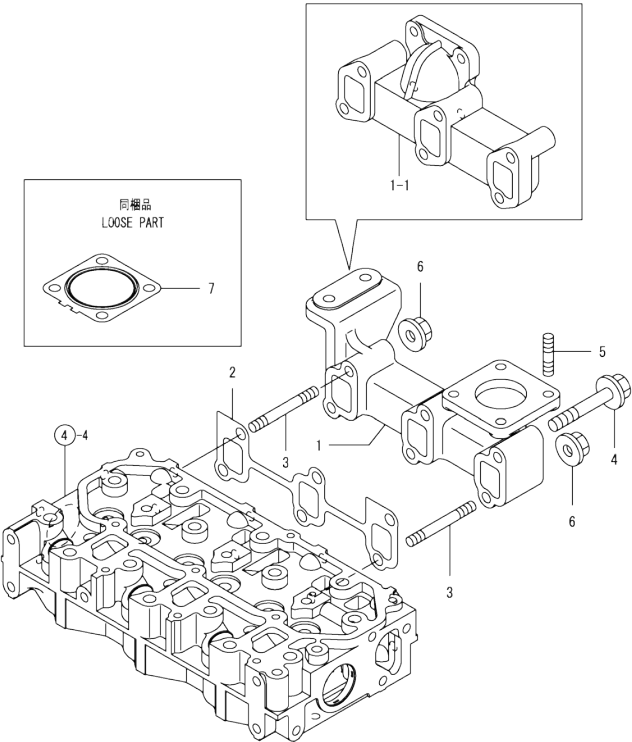
Fig.4. CYLINDER HEAD & BONNET



Remarks
(1) REPAIR PART.

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129901-11450	PROTECTOR, NOZZLE	3							
2	1	119600-11460	GASKET, NOZZLE	6							
3	1	105010-11490	CAP, VALVE	6							
4	1	119515-11740	HEAD ASSY, CYLINDER	1							
9	2	119285-11990	PLUG, 35	2							
10	2	23876-005000	PLUG, R005	1							
11	2	119515-11101	VALVE, INTAKE	3							
12	2	119515-11110	VALVE, EXHAUST	3							
13	2	119717-11131	SPRING, VALVE	6							
14	2	129508-11180	RETAINER, SPRING	6							
15	2	119717-11190	COTTER	12							
16	2	119717-11340	SEAL, VALVE STEM	3							
17	2	119717-11350	SEAL, VALVE STEM	3							
18	1	119515-11800	GUIDE, VALVE	6							1
19	1	22351-060012	PIN, SPRING 6.0X12	2							
20	1	119515-11200	SUPPORT ASSY, ARM	1							
21	2	119515-11240	SHAFT ASSY, ROCKER	1							
24	2	119717-11260	SUPPORT, ROCKER ARM	3							
25	2	119515-11280	SPRING	2							
26	2	119717-11650	ARM, ROCKER	6							
27	3	129150-11230	SCREW, VALVE ADJUST	6							
29	3	129150-11750	NUT, M8	6							
30	2	22242-000120	RING, 12	2							
31	2	26979-050162	SCREW, M5X16	1							
32	1	26106-080402	BOLT, M8X 40 PLATED	3							
33	1	124160-01751	COVER, FILLER	1							
34	1	119515-11380	BONNET ASSY, HEAD	1							
35	2	119717-03031	PLATE	1							
36	3	119717-03070	BAFFLE, BREATHER	1							
37	2	119717-03070	BAFFLE, BREATHER	2							
38	2	119802-03100	DIAPHRAGM ASSY	1							
39	3	119802-03110	PLATE	1							
40	3	119802-03121	COVER, DIAPHRAGM	1							
41	3	119802-03131	DIAPHRAGM	1							
42	3	119802-03141	SPRING, DIAPHRAGM	1							
44	2	119515-11310	GASKET, BONNET	1							
45	2	119515-11320	COVER, BONNET	1							
46	2	119515-11330	GASKET, BONNET	1							
47	2	22857-500100	SCREW, 5X10	4							
48	2	22857-500100	SCREW, 5X10	4							
49	2	22857-500160	SCREW, 5X16	2							
50	1	24311-000320	O-RING, 1AP32.0	1							
51	1	26106-060202	BOLT, M6X 20 PLATED	3							
52	1	26106-060752	BOLT, M6X 75 PLATED	6							
53	1	119717-77800	PLUG, GLOW	3							
54	1	119717-77820	CONNECTOR, GLOW PLUG	1							

Fig.5. EXHAUST MANIFOLD

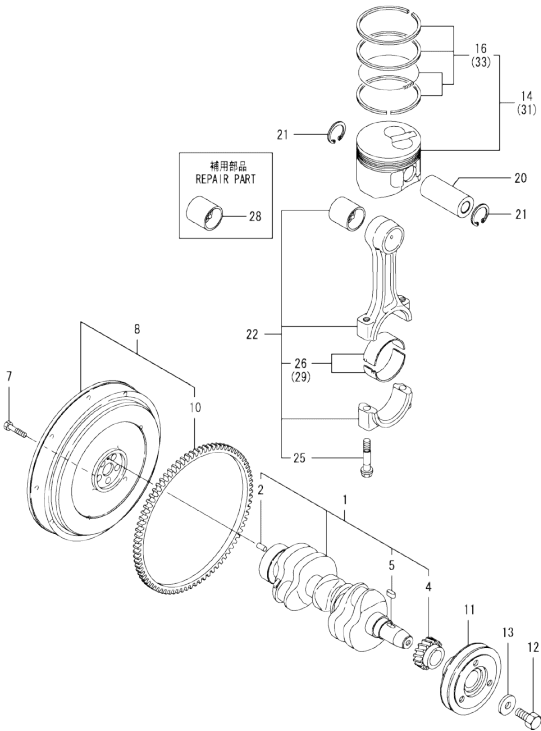


(A)=3TNV70-NPR
(B)=
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	119717-13109	MANIFOLD, EXHAUST	1							
1-1	1	119718-13100	MANIFOLD, EXHAUST	1							N
(A=E#57583)											
2	1	119717-13110	GASKET	1							
3	1	119717-13600	STUD, M8X50	2							
4	1	119802-13620	BOLT, M8X50	4							
5	1	119131-18320	STUD, M8X22	4							
6	1	26306-080002	NUT, M8	2							
7	1	119515-13200	GASKET, SILENCER	1							

Fig.7. CRANKSHAFT & PISTON



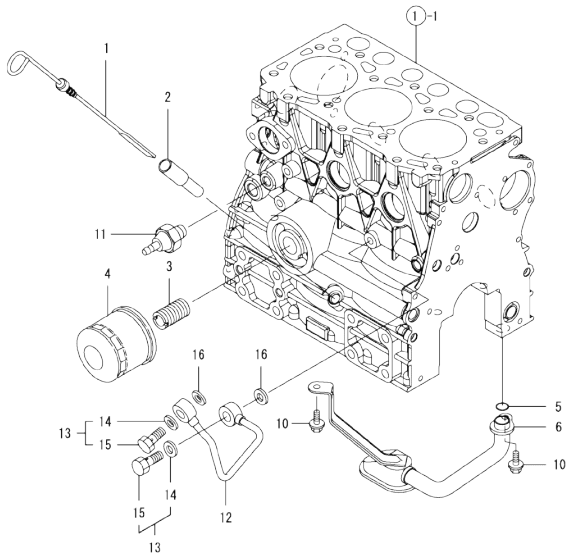
(A)=3TNV70-NPR
(B)=
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	119515-21700	CRANKSHAFT ASSY	1							
2	2	129100-01580	PIN, M8X16	1							
4	2	119717-21200	GEAR, CRANKSHAFT	1							
5	2	22512-040120	KEY, 4X 12	1							
7	1	119620-21500	BOLT, FLYWHEEL	5							
8	1	119515-21580	FLYWHEEL ASSY	1							
10	2	124950-21600	GEAR, RING	1							
11	1	119717-21650	V-PULLEY	1							
12	1	119621-21680	BOLT, FLANGE 12X1.25	1							
13	1	119620-21941	WASHER	1							
14	1	119515-22080	PISTON ASSY	3							
16	2	119515-22500	RING SET, PISTON	3							
20	1	119515-22300	PIN, PISTON	3							
21	1	22252-000220	RING, 22	6							
22	1	119515-23000	ROD ASSY, CONNECTING	3							
25	2	119717-23200	BOLT, CONNECTING ROD	6							
26	2	119515-23601	BEARING, CRANK PIN	3							
28	1	119717-23910	BEARING, PISTON PIN	3							1
29	1	119515-23611	METAL ASSY, 0.25	3							2
31	1	119515-22900	PISTON ASSY, 0.25 OS	3							3
33	2	119515-22550	RING SET, 0.25 OS	3							3

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

Fig.8. LUB.OIL SYSTEM



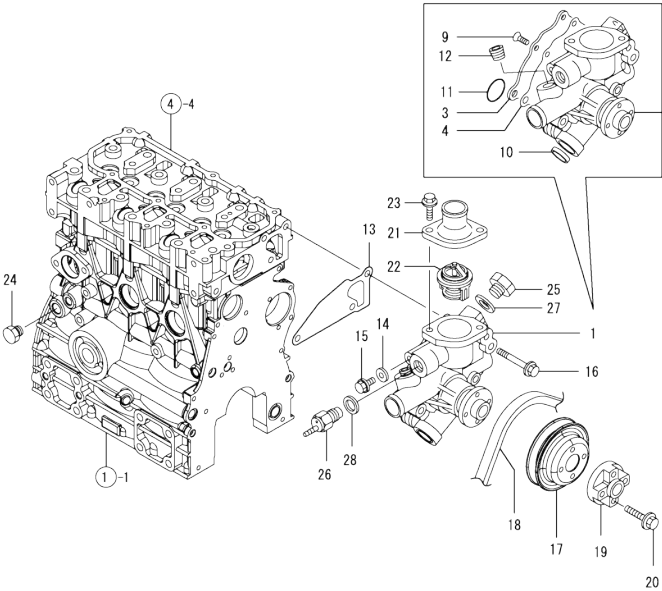
(A)=3TNV70-NPR
(B)=
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	119515-34801	DIPSTICK, OIL	1							
2	1	121520-34810	GUIDE, DIPSTICK	1							
3	1	129100-35140	STUD	1							
4	1	119305-35151	FILTER ASSY, D68XL65	1							1
5	1	119717-32060	O-RING, P15.0	1							
6	1	119515-35080	PIPE ASSY, OIL INLET	1							
10	1	26106-060102	BOLT, M6X 10 PLATED	2							
11	1	114250-39450	SWITCH, 0.5KG	1							
12	1	119717-39210	PIPE, OIL	1							
13	1	129005-59830	BOLT ASSY, JOINT M8	2							
14	2	22190-080002	WASHER, SEAL 6	2							
15	2	23857-030000	BOLT, JOINT 3	2							
16	1	22190-080002	WASHER, SEAL 6	2							

Remarks
(1) REPAIR PART.

Fig.9. COOLING WATER SYSTEM

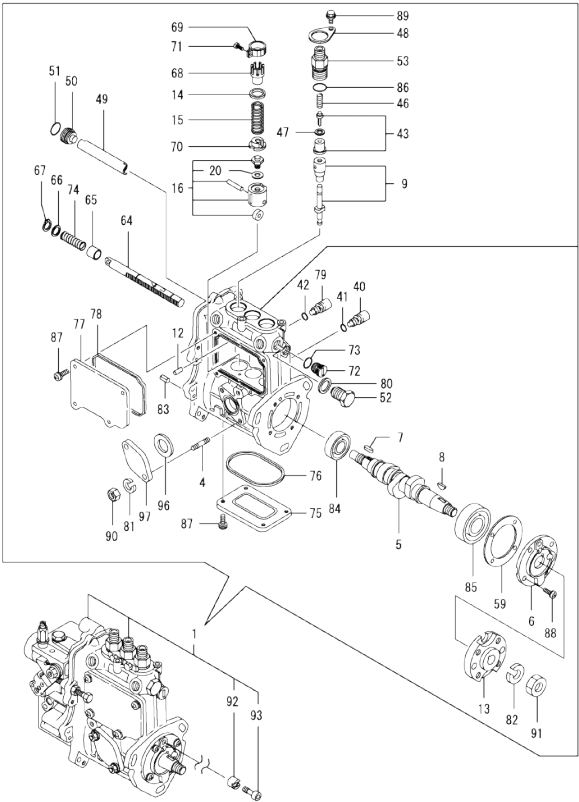


(A)=3TNV70-NPR
(B)=
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	119540-42000	PUMP ASSY, WATER	1							
1-1	1	119C10-42000	PUMP ASSY, WATER	1							N
(A=E/ 86798)											
1-2	1	119C10-42001	PUMP ASSY, CW	1							N
(A=EK8263)											
3	2	119515-42041	COVER	1							
4	2	119717-42031	GASKET	1							
9	2	26577-060122	SCREW, M6X12	4							
10	2	27241-250000	PLUG, 25	1							
10-1	2	119717-42050	PLUG, 25	1							N
(A=EK8263)											
11	2	119717-42320	O-RING, P26	1							
11-1	2	119C10-42320	O-RING, 2028	1							S
(A=E/ 86798)											
12	2	129916-49740	PLUG, R3/8	1							
13	1	119515-42020	GASKET, WATER PUMP	1							
14	1	23414-080000	GASKET, 8X1.0	1							
15	1	26106-080122	BOLT, M8X 12 PLATED	1							
16	1	26106-080502	BOLT, M8X 50 PLATED	3							
17	1	119740-42350	V-PULLEY, D=90	1							
18	1	171001-42290	V-BELT, A35.5	1							
19	1	121267-44760	SPACER, FAN	1							
20	1	26106-060302	BOLT, M6X 30 PLATED	4							
21	1	129350-49530	COVER, THERMOSTAT	1							
22	1	119717-49800	THERMOSTAT, 71C	1							
23	1	26106-080202	BOLT, M8X 20 PLATED	2							
24	1	171056-49120	PLUG, DRAIN R1/4	1							
25	1	121450-42450	PLUG, M16	1							
26	1	121250-44901	SWITCH, THERMO 110	1							
27	1	124465-44950	GASKET, 16	1							
28	1	124465-44950	GASKET, 16	1							

Fig.10. FUEL INJECTION PUMP

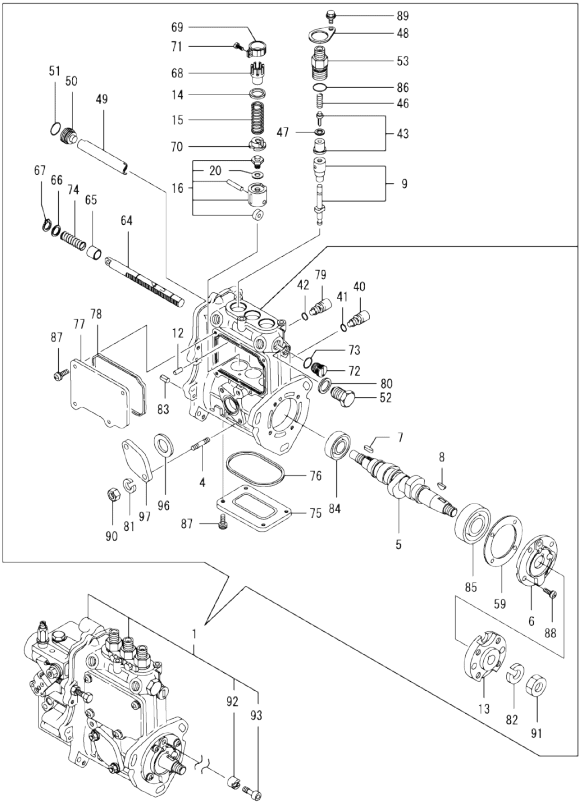


Remarks
(1) GOVERNOR ASSY(FIG.11) IS
INCORPORATED IN THIS FOP.CMP
(REF.NO.1).

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	719540-51490	PUMP ASSY, INJECTION	1							1
4	2	129155-51020	STUD	2							
5	2	119717-51030	CAMSHAFT	1							
6	2	119717-51060	SUPPORT, CAMSHAFT	1							
7	2	119717-51070	KEY	1							
8	2	122710-51090	KEY	1							
9	2	119515-51100	PLUNGER ASSY	3							
12	2	129155-51140	PIN	3							
13	2	119717-51150	FLANGE	1							
14	2	158600-51170	RETAINER, SPRING	3							
15	2	119717-51190	SPRING, PLUNGER	3							
16	2	119717-51200	TAPPET ASSY	3							
20	3	129155-51600	SHIM SET, ADJUSTING	3							
40	2	158600-51270	STOPPER, TAPPET	3							
41	2	129155-51280	O-RING, S6	3							
42	2	129155-51280	O-RING, S6	1							
43	2	119717-51300	VALVE ASSY, DELIVERY	3							
46	2	119717-51330	SPRING, DELIVERY	3							
47	2	124550-51350	GASKET, DELIVERY	3							
48	2	118400-51370	LOCKING	3							
49	2	129155-51400	DEFLECTOR	1							
50	2	158600-51410	PLUG, DEFLECTOR	1							
51	2	119717-51420	O-RING	1							
52	2	158600-51420	PLUG, DEFLECTOR	1							
53	2	158600-51442	VALVE ASSY, DELIVERY	3							
59	2	129155-51450	SHIM SET, ADJUSTING	1							
64	2	119717-51500	RACK, CONTROL	1							
65	2	129155-51521	BUSH, RACK	1							
66	2	129155-51530	SPACER	1							
67	2	129155-51540	CIRCLIP	1							
68	2	129155-51550	PINION, CONTROL	3							
69	2	129100-51560	PINION	3							
70	2	119717-51570	RETAINER, SPRING	3							
71	2	129100-51570	SCREW	3							
72	2	158600-51570	PLUG	1							
73	2	129155-51580	O-RING	1							
74	2	129155-51591	SPRING, RACK	1							
75	2	129155-51701	COVER	1							
76	2	119717-51711	GASKET	1							
77	2	119717-51750	COVER	1							
78	2	119717-51761	GASKET	1							
79	2	158600-51790	STOOPER, RACK	1							
80	2	22190-160002	WASHER, SEAL 16	1							
81	2	22217-060000	WASHER, SPRING 6	2							
82	2	22217-120000	WASHER, SPRING 12	1							
83	2	22351-050010	PIN, SPRING 5.0X10	2							
84	2	24101-060034	BEARING, BALL 6003	1							
85	2	24101-063034	BEARING, BALL 6303	1							
86	2	24316-000150	O-RING, 4DP15.0	3							
87	2	26022-050122	SCREW, M5X12	8							
88	2	26022-060162	SCREW, M6X16	4							

N:Old $\xrightarrow{\text{New}}$ New, Q:Old $\xrightarrow{\text{New}}$ New, R:Old $\xrightarrow{\text{New}}$ New, S:Old $\xrightarrow{\text{New}}$ New, W:Add, Z:Discontinued, F:Interchangeable by set, K:Q'ty Change
++ CONTINUE ++
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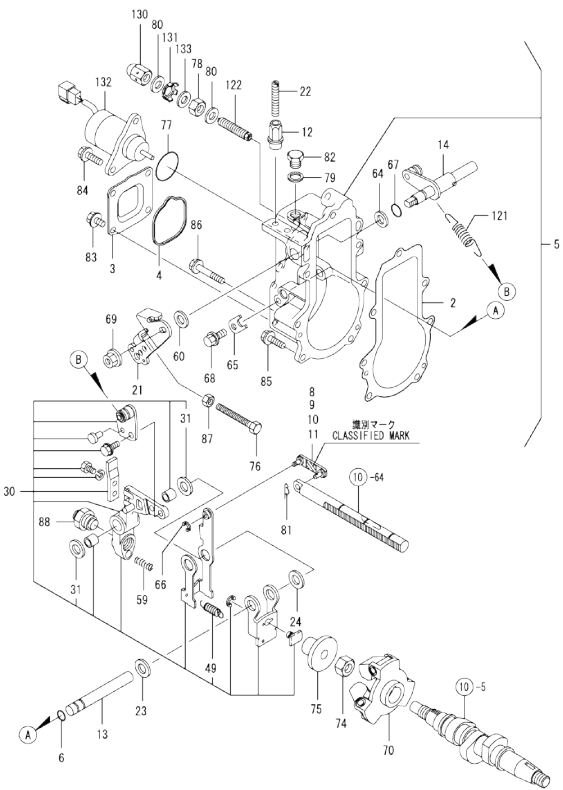
Fig.10. FUEL INJECTION PUMP



Remarks
(1) GOVERNOR ASSY(FIG.11) IS
INCORPORATED IN THIS FOP.CMP
(REF.NO.1).

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
89	2	26106-050102	BOLT, M5X 10 PLATED	3							
90	2	26716-060002	NUT, M6	2							
91	2	26716-120002	NUT, M12	1							
92	2	119717-51480	COLLAR	1							
93	2	119717-51490	BOLT	1							
96	2	129155-52051	GASKET	1							
97	2	129100-52200	COVER	1							

Fig.11. GOVERNOR



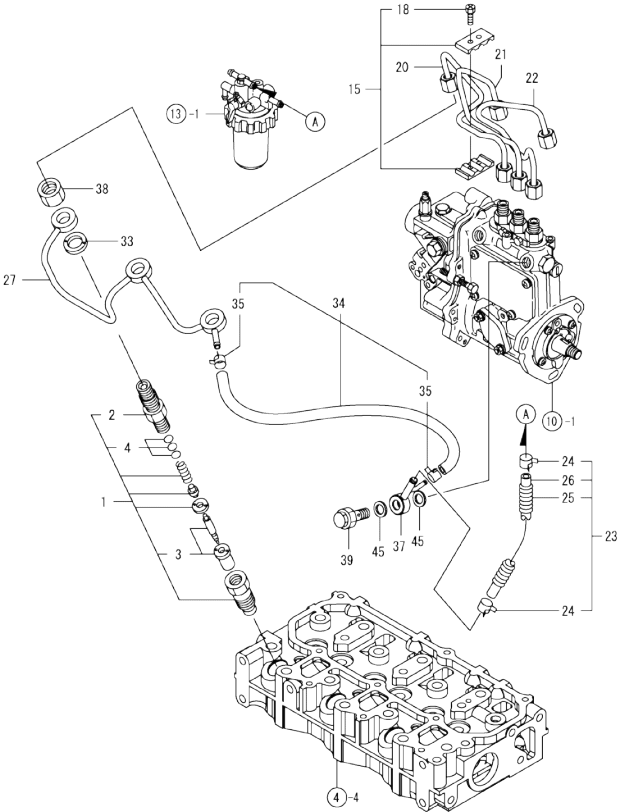
Remarks
* THIS FIGURE(GOVERNOR ASSY)IS
INCORPORATED IN THE FUEL INJECTION
PUMP ASSY(FIG.10).
(1) SELECTIVE PARTS: CERTAIN THE
CLASSIFICATION MARK, THEN PLACE
YOUR ORDER(REF. TO ILLUSTRATION).

(A)=3TNV70-NPR
(B)=
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
2	2	119717-61050	GASKET	1							
3	2	119717-61060	COVER, GOVERNOR CASE	1							
4	2	119717-61070	GASKET	1							
5	2	119717-61100	CASE ASSY, GOVERNOR	1							
6	3	129155-51280	O-RING, S6	1							
8	3	119717-61120	LINK, MARK :3	1							1
9	3	119717-61130	LINK, MARK 98	1							1
10	3	119717-61140	LINK, MARK 88	1							1
11	3	119717-61150	LINK, MARK 03	1							1
12	3	129209-61370	NUT, M6	1							
13	3	129052-61390	SHAFT	1							
14	3	119717-61400	SHAFT ASSY	1							
21	3	119515-61440	LEVER, CONTROL	1							
22	3	129155-61450	BOLT, LIMITER	1							
23	3	129156-61460	SHIM, T=0.6	1							
24	3	129155-61480	SPACER ASSY	1							
30	3	119717-61500	LEVER ASSY, GOVERNOR	1							
31	4	174307-51700	SHIM SET	2							
49	4	129486-61540	SPRING, SET	1							
59	3	129100-61650	SPRING, CONTROLLER	1							
60	3	158552-61700	SHIM SET	1							
64	3	158552-61710	SHIM, T=1.0	1							
65	3	119660-61901	RETAINER, SHAFT	1							
66	3	22272-000030	RING, E- 3	1							
67	3	24341-000070	O-RING, 1AS7.0	1							
68	3	26106-060102	BOLT, M6X 10 PLATED	1							
69	3	26366-080002	NUT, M8	1							
70	2	119717-61200	WEIGHT ASSY, GOVERNOR	1							
74	2	129008-61301	NUT, M8	1							
75	2	129155-61341	SLEEVE	1							
76	2	129155-61460	BOLT, IDLE	1							
77	2	158552-61900	O-RING	1							
78	2	129209-61920	NUT, ARB	1							
79	2	22190-100002	WASHER, SEAL 10	1							
80	2	22190-120002	WASHER, SEAL 12	2							
81	2	22372-040000	PIN, SNAP 4	1							
82	2	23887-100002	PLUG, 10	1							
83	2	26106-060102	BOLT, M6X 10 PLATED	4							
84	2	26106-060142	BOLT, M6X 14 PLATED	2							
85	2	26106-060202	BOLT, M6X 20 PLATED	4							
86	2	26106-060452	BOLT, M6X 45 PLATED	3							
87	2	26756-060002	NUT, LOCK M6	1							
88	2	119515-61550	ANGLEIGH ASSY	1							
121	2	119718-61700	SPRING, GOVERNOR	1							
122	2	158601-61740	LIMITER ASSY, FUEL	1							
130	2	129209-61930	NUT, CAP	1							
131	2	129209-61970	PLATE	1							
132	2	119233-77932	SOLENOID, STOP	1							
133	2	23414-120016	GASKET, 12X1.0	1							

Fig.12. FUEL INJECTION VALVE

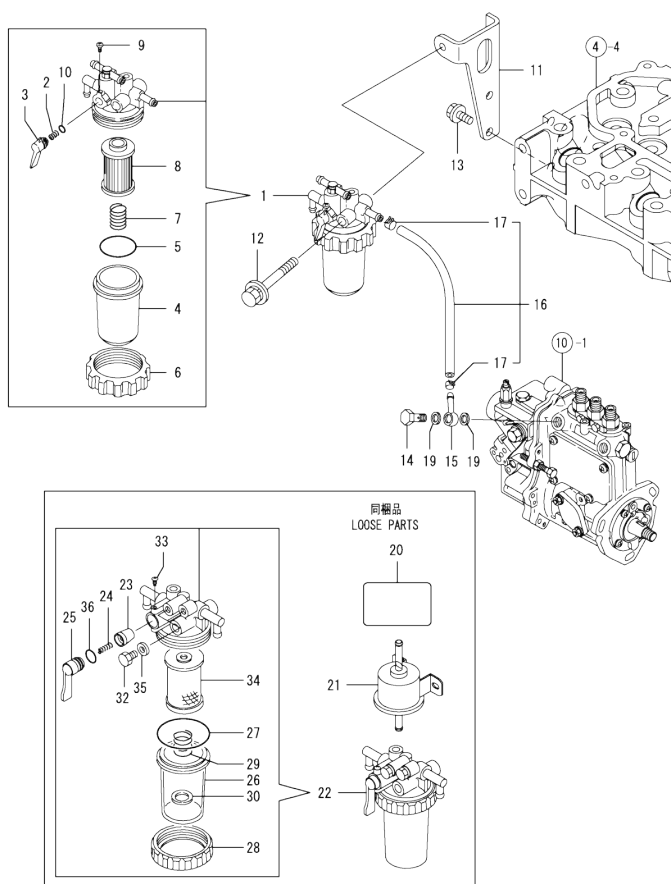


Remarks
(1) REPAIR PART.

(A)=3TNV70-NPR
(B)=
(C)=

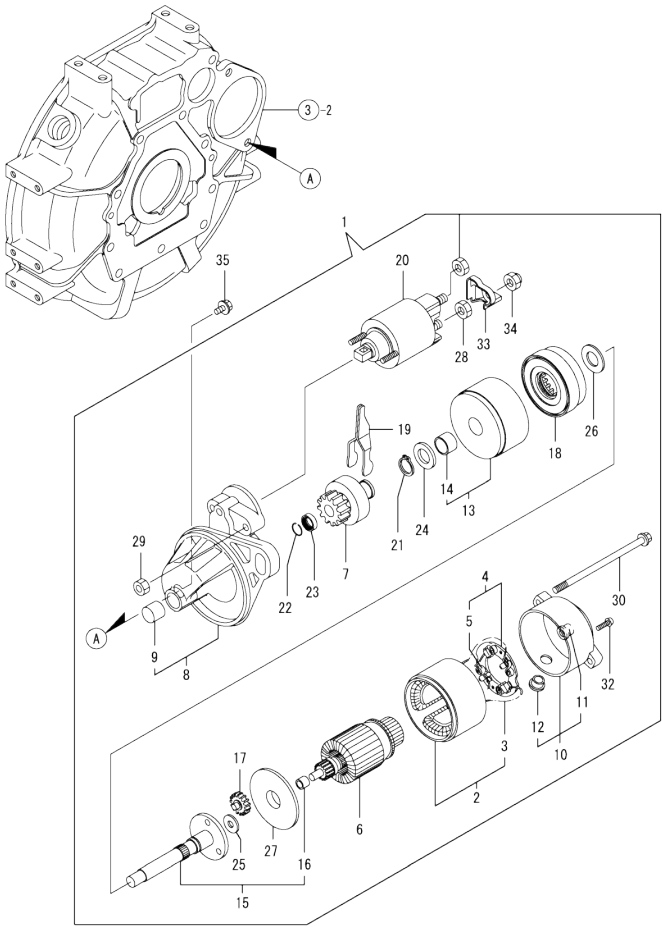
(D)=
(E)=
(F)=

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	119515-53001	VALVE ASSY,INJECTION	3							
2	2	118200-53010	HOLDER, NOZZLE	3							
3	2	119515-53010	VALVE ASSY,INJECTION	3							
4	2	129901-53800	SHIM SET, ADJUSTING	3							1
15	1	129150-59120	RETAINER, PIPE	1							
18	2	129150-59131	BOLT, M4X14	2							
20	1	119546-59810	PIPE ASSY, INJECTION	1							
21	1	119546-59820	PIPE ASSY, INJECTION	1							
22	1	119546-59830	PIPE ASSY, INJECTION	1							
23	1	129950-59211	PIPE, FUEL	1							
24	2	124766-59050	CLIP, HOSE 12	2							
25	2	129950-59221	TUBE, CORRUGATED	1							
26	2	105025-59530	PIPE, FUEL D13X400	1							
27	1	119515-59540	PIPE ASSY, RETURN	1							
33	1	129901-59560	GASKET	3							
34	1	119540-59570	PIPE ASSY, RETURN	1							
35	2	124066-59100	CLIP, HOSE 8	2							
37	1	119840-59570	JOINT	1							
38	1	119620-59700	NUT, NOZZLE	3							
39	1	119813-59950	VALVE ASSY, CHECK	1							
45	1	22190-120002	WASHER, SEAL 12	2							



No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	119833-55620	FILTER ASSY, FUEL	1							
2	2	104200-55330	SPRING, VALVE	1							
3	2	119810-55340	LEVER	1							
4	2	121254-55510	COVER	1							
5	2	102103-55520	O-RING	1							
6	2	110250-55610	RING, RETAINING	1							
7	2	121250-55620	SPRING	1							
8	2	119810-55650	ELEMENT	1							
9	2	104200-55750	SCREW, M4	1							
10	2	24311-240100	O-RING, 1AP10A	1							
11	1	119717-55650	BRACKET, FILTER	1							
12	1	26014-080702	BOLT, M8X 70	1							
13	1	26106-080162	BOLT, M8X 16 PLATED	2							
14	1	103854-39140	BOLT, PIPE JOINT	1							
15	1	101304-59020	JOINT, PIPE 12	1							
16	1	129210-59080	PIPE ASSY, FUEL	1							
17	2	124766-59050	CLIP, HOSE 12	2							
19	1	22190-120002	WASHER, SEAL 12	2							
20	1	114110-07760	LABEL, FUEL CAUTION	1							
21	1	119225-52102	PUMP ASSY, FUEL FEED	1							
22	1	129335-55700	SEPARATOR ASSY, WATER	1							
23	2	104200-55321	VALVE, TAPER	1							
24	2	104200-55330	SPRING, VALVE	1							
25	2	104200-55341	HANDLE	1							
26	2	124064-55510	COVER	1							
27	2	102103-55520	O-RING	1							
28	2	110250-55610	RING, RETAINING	1							
29	2	121257-55720	SPRING	1							
30	2	121257-55731	FLOAT	1							
32	2	101720-55750	PLUG, 6	2							
33	2	104200-55750	SCREW, M4	1							
34	2	171081-55910	SCREEN	1							
35	2	23418-060000	GASKET, 6X1.0	2							
36	2	24311-240100	O-RING, 1AP10A	1							

Fig.14. STARTING MOTOR

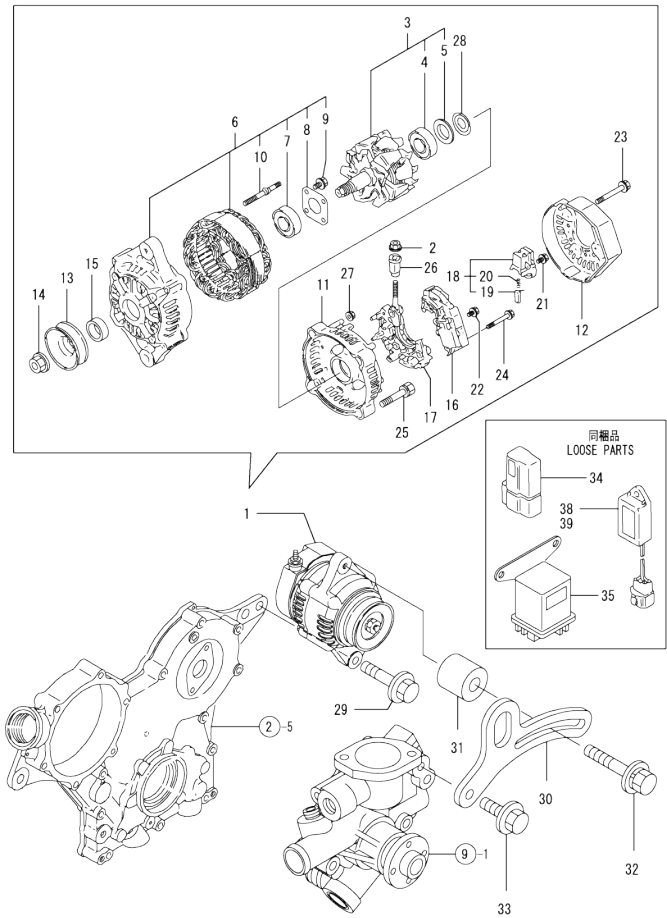


(A)=3TNV70-NPR
(B)=
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	119515-77010	STARTER	1							
2	2	X0281007680	YOKE ASSY	1							
3	3	X0280996180	STARTER KIT	2							
4	2	X0285105190	HOLDER ASSY	1							
5	3	X0285205030	SPRING	4							
6	2	X0282005871	ARMATURE ASSY	1							
7	2	X0283006960	CLUTCH ASSY	1							
8	2	X4284001590	HOUSING ASSY	1							
9	3	X9491050100	BEARING, NEEDLE	1							
10	2	X0285007030	FRAME ASSY	1							
11	3	X9491040990	BEARING	1							
12	3	X0280626010	COVER	1							
13	2	X0284105040	BEARING ASSY	1							
14	3	X9491034330	BEARING	1							
15	2	X0286105010	SHAFT ASSY	1							
16	3	X9491034320	BEARING	1							
17	2	X0286305010	GEAR	3							
18	2	X0286355010	GEAR	1							
19	2	X0287405140	LEVER	1							
20	2	X0534007800	SWITCH ASSY	1							
21	2	X9055715000	RING	1							
22	2	X9490721360	RING	1							
23	2	X0280210331	NUT	1							
24	2	X9490138110	WASHER	1							
25	2	X9490138090	WASHER	1							
26	2	X9490138100	WASHER	1							
27	2	X0284525010	PLATE	1							
28	2	X9490562360	NUT	1							
29	2	X9490560750	NUT	2							
30	2	X9490423520	BOLT, THROUGH	2							
32	2	X9490065670	SCREW, M4X6	2							
33	2	X0280335360	COVER, TERMINAL	1							
34	2	X1289510130	NUT	1							
35	1	26106-100252	BOLT, M10X 25 PLATED	2							

Fig.15. GENERATOR

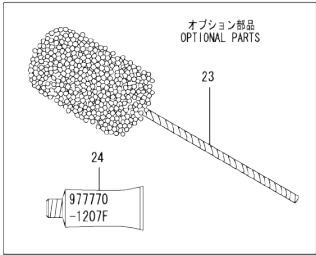
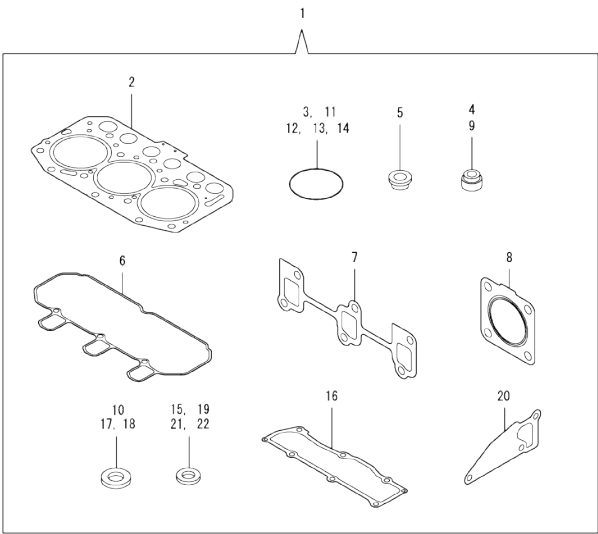


(A)=3TNV70-NPR
(B)=
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129423-77200	GENERATOR, 12V-40A	1							
2	2	X9490561001	NUT	1							
3	2	119620-77380	ROTOR ASSY	1							
4	3	123501-79240	BEARING, BALL	1							
5	3	119620-79250	COVER	1							
6	2	119620-77421	FRAME ASSY, DRIVE	1							
7	3	119620-79200	BEARING, BALL	1							
8	3	119620-79210	PLATE, RETAINER	1							
9	3	119620-79220	SCREW	4							
10	3	119620-79230	STUD	2							
11	2	119620-77440	FRAME ASSY	1							
12	2	129240-79300	COVER	1							
13	2	119620-77461	PULLEY	1							
14	2	119620-77471	NUT	1							
15	2	119620-77490	COLLAR	1							
16	2	129423-77710	REGULATOR ASSY	1							
17	2	119620-79260	HOLDER	1							
18	2	129052-79270	HOLDER, BRUSH	1							
19	3	119620-77480	BRUSH ASSY	2							
20	3	119620-79280	SPRING	2							
21	2	119620-79290	SCREW	6							
22	2	119620-79300	SCREW	1							
23	2	119620-79310	BOLT	3							
24	2	119620-79320	SCREW	2							
25	2	119620-79330	BOLT	2							
26	2	119620-79340	BUSH, INSULATION	1							
27	2	119620-79350	NUT	2							
28	2	119620-79360	WASHER, THRUST	1							
29	1	26106-100452	BOLT, M10X 45 PLATED	1							
30	1	119230-77330	ADJUSTER	1							
31	1	124732-77340	SPACER	1							
32	1	129972-77341	BOLT, ADJUSTER L=50	1							
33	1	26106-080202	BOLT, M8X 20 PLATED	1							
34	1	119643-66900	DIODE	1							
35	1	119650-77910	RELAY ASSY, GLOW	1							
38	1	129155-77925	TIMER	1							
39	1	129211-77920	TIMER	1							

Fig.16. GASKET SET



Remarks
(1) OPTIONAL PART.

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	719515-92630	GASKET SET	1							1
2	2	119515-01330	GASKET, HEAD	1							
3	2	121850-51960	O-RING	1							
4	2	119717-11340	SEAL, VALVE STEM	3							
5	2	129901-11450	PROTECTOR, NOZZLE	3							
6	2	119515-11310	GASKET, BONNET	1							
7	2	119717-13110	GASKET	1							
8	2	119515-13200	GASKET, SILENCER	1							
9	2	119717-11350	SEAL, VALVE STEM	3							
10	2	22190-080002	WASHER, SEAL 6	4							
11	2	24311-000320	O-RING, 1AP32.0	2							
12	2	119717-32060	O-RING, P15.0	1							
13	2	119624-32040	O-RING, P12.0	1							
14	2	119717-32050	O-RING, P17.0	3							
15	2	119600-11460	GASKET, NOZZLE	6							
16	2	119515-11330	GASKET	1							
17	2	22190-160002	WASHER, SEAL 16	1							
18	2	22190-120002	WASHER, SEAL 12	4							
19	2	129901-59560	GASKET	3							
20	2	119515-42020	GASKET, WATER PUMP	1							
21	2	23414-080000	GASKET, 8X1.0	1							
22	2	124465-44950	GASKET, 16	2							
23	1	129400-92410	HONE	1							1
24	1	977770-1207F	GASKET,LIQUID	1							1

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Parts No.	Fig. No.	Ref. No.
101304-59020	13	15
101720-55750	13	32
102103-55520	13	5
	27	
103854-39140	13	14
104200-55321	13	23
104200-55330	13	2
	24	
104200-55341	13	25
104200-55750	13	9
	33	
105010-11490	4	3
105025-59530	12	26
105311-01090	1	4
105425-01690	3	9
110250-55610	13	6
	28	
114110-07760	13	20
114250-39450	8	11
118200-53010	12	2
118400-51370	10	48
119131-18320	5	5
119225-52102	13	21
119230-77330	15	30
119233-77932	11	132
119285-01990	1	6
119285-11990	4	9
119305-35151	8	4
119515-01200	1	29
119515-01330	1	30
	16	2
119515-01601	3	2
119515-01720	3	7
119515-11101	4	11
119515-11110	4	12
119515-11200	4	20
119515-11240	4	21
119515-11280	4	25
119515-11310	4	44
	16	6
119515-11320	4	45
119515-11330	4	46
	16	16
119515-11380	4	34
119515-11740	4	4
119515-11800	4	18
119515-13200	5	7
	16	8
119515-14400	6	2
119515-14581	6	3

Parts No.	Fig. No.	Ref. No.
119515-21580	7	8
119515-21700	7	1
119515-22080	7	14
119515-22300	7	20
119515-22500	7	16
119515-22550	7	33
119515-22900	7	31
119515-23000	7	22
119515-23601	7	26
119515-23611	7	29
119515-34801	8	1
119515-35080	8	6
119515-42020	9	13
	16	20
119515-42041	9	3
119515-51100	10	9
119515-53001	12	1
119515-53010	12	3
119515-59540	12	27
119515-61440	11	21
119515-61550	11	88
119515-77010	14	1
119540-01770	3	8
119540-42000	9	1
119540-59570	12	34
119546-59810	12	20
119546-59820	12	21
119546-59830	12	22
119600-11460	4	2
	16	15
119620-01750	3	4
119620-02020	1	7
119620-14200	6	1
119620-21500	7	7
119620-21941	7	13
119620-59700	12	38
119620-77380	15	3
119620-77421	15	6
119620-77440	15	11
119620-77461	15	13
119620-77471	15	14
119620-77480	15	19
119620-77490	15	15
119620-79200	15	7
119620-79210	15	8
119620-79220	15	9
119620-79230	15	10
119620-79250	15	5
119620-79260	15	17
119620-79280	15	20

Parts No.	Fig. No.	Ref. No.
119620-79290	15	21
119620-79300	15	22
119620-79310	15	23
119620-79320	15	24
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119620-79340	15	26
119620-79350	15	27
119620-79360	15	28
119621-21680	7	12
119623-01250	1	5
119624-32040	2	18
	16	13
119643-66900	15	34
119650-77910	15	35
119660-01911	2	17
119660-61901	11	65
119717-01501	2	1
119717-01521	2	5
119717-01570	2	2
119717-01750	2	16
119717-01800	2	7
119717-02411	1	10
119717-02930	1	23
119717-03031	4	35
119717-03070	4	36
		37
119717-11131	4	13
119717-11190	4	15
119717-11260	4	24
119717-11340	4	16
	16	4
119717-11350	4	17
	16	9
119717-11650	4	26
119717-13109	5	1
119717-13110	5	2
	16	7
119717-13600	5	3
119717-21200	7	4
119717-21650	7	11
119717-23200	7	25
119717-23910	7	28
119717-25050	6	9
119717-25101	6	10
119717-25911	6	13
119717-25930	6	16
119717-32050	2	19
	16	14
119717-32060	8	5
	16	12

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119717-32080	2	9
119717-32100	2	8
119717-32110	2	13
119717-32120	2	14
119717-39210	8	12
119717-42031	9	4
119717-42050	9	10 -1
119717-42320	9	11
119717-49800	9	22
119717-51030	10	5
119717-51060	10	6
119717-51070	10	7
119717-51150	10	13
119717-51190	10	15
119717-51200	10	16
119717-51300	10	43
119717-51330	10	46
119717-51420	10	51
119717-51480	10	92
119717-51490	10	93
119717-51500	10	64
119717-51570	10	70
119717-51711	10	76
119717-51750	10	77
119717-51761	10	78
119717-55650	13	11
119717-61050	11	2
119717-61060	11	3
119717-61070	11	4
119717-61100	11	5
119717-61120	11	8
119717-61130	11	9
119717-61140	11	10
119717-61150	11	11
119717-61200	11	70
119717-61400	11	14
119717-61500	11	30
119717-77800	4	53
119717-77820	4	54
119718-13100	5	1 -1
119718-61700	11	121
119734-01590	2	3
119740-42350	9	17
119802-03100	4	38
119802-03110	4	39
119802-03121	4	40
119802-03131	4	41
119802-03141	4	42
119802-13620	5	4
119802-32130	2	15

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119810-02941	1	31
119810-55340	13	3
119810-55650	13	8
119813-59950	12	39
119833-55620	13	1
119840-59570	12	37
119C10-42000	9	1 -1
119C10-42001	9	1 -2
119C10-42320	9	11 -1
121120-01620	3	3
121250-44901	9	26
121250-55620	13	7
121254-55510	13	4
121257-55720	13	29
121257-55731	13	30
121267-44760	9	19
121450-42450	9	25
121520-34810	8	2
121850-51960	2	20
	16	3
122710-51090	10	8
123501-79240	15	4
124060-01050	1	11
124064-55510	13	26
124066-59100	12	35
124085-02220	3	5
124160-01751	2	28
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124160-01910	1	12
124465-44950	9	27
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	16	22
124550-51350	10	47
124732-77340	15	31
124766-59050	12	24
	13	17
124950-21600	7	10
129001-32320	2	11
129001-32330	2	12
129005-59830	8	13
129008-61301	11	74
129052-61390	11	13
129052-79270	15	18
129100-01580	3	1
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129100-35140	8	3
129100-51560	10	69
129100-51570	10	71
129100-52200	10	97
129100-61650	11	59

Parts No.	Fig. No.	Ref. No.
129150-11230	4	27
129150-11750	4	29
129150-25301	6	15
129150-59120	12	15
129150-59131	12	18
129155-51020	10	4
129155-51140	10	12
129155-51280	10	41
		42
	11	6
129155-51400	10	49
129155-51450	10	59
129155-51521	10	65
129155-51530	10	66
129155-51540	10	67
129155-51550	10	68
129155-51580	10	73
129155-51591	10	74
129155-51600	10	20
129155-51701	10	75
129155-52051	10	96
129155-61341	11	75
129155-61450	11	22
129155-61460	11	76
129155-61480	11	24
129155-77925	15	38
129156-61460	11	23
129209-61370	11	12
129209-61920	11	78
129209-61930	11	130
129209-61970	11	131
129210-59080	13	16
129211-77920	15	39
129240-79300	15	12
129335-55700	13	22
129350-49530	9	21
129400-92410	16	23
129423-77200	15	1
129423-77710	15	16
129486-61540	11	49
129508-11180	4	14
129900-32130	2	10
129901-11450	4	1
	16	5
129901-53800	12	4
129901-59560	12	33
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129916-49740	9	12
129950-59211	12	23
129950-59221	12	25

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158552-61710	11	64
158552-61900	11	77
158600-51170	10	14
158600-51270	10	40
158600-51410	10	50
158600-51420	10	52
158600-51442	10	53
158600-51570	10	72
158600-51790	10	79
158601-61740	11	122
	9	18
171056-49120	9	24
171081-55910	13	34
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		16
	16	10
22190-100002	11	79
22190-120002	11	80
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22190-160002	3	11
	10	80
	16	17
22217-060000	10	81
22217-120000	10	82
22242-000120	4	30
22252-000220	7	21
22272-000030	11	66
22351-050010	10	83
22351-060012	4	19
22372-040000	11	81
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23414-120016	11	133
23418-060000	13	35
23857-030000	8	15
23876-005000	4	10
23876-030000	2	6
23887-100002	11	82
24101-060034	10	84
24101-063034	10	85
24311-000320	2	29

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24311-240100	13	10
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24316-000150	10	86
24341-000070	11	67
26014-080702	13	12
26022-050122	10	87
26022-060162	10	88
26106-050102	10	89
26106-060102	8	10
	11	68
		83
26106-060122	2	21
	3	12
	6	8
26106-060142	11	84
26106-060162	2	22
26106-060202	4	51
	11	85
26106-060252	3	13
26106-060302	9	20
26106-060352	6	14
26106-060402	2	23
		24
26106-060452	3	14
	11	86
26106-060602	2	25
26106-060652	2	26
26106-060752	4	52
26106-080122	9	15
26106-080162	13	13
26106-080202	9	23
	15	33
26106-080402	4	32
26106-080502	9	16
26106-100252	14	35
26106-100452	15	29
26206-100252	3	6
26306-080002	2	27
	5	6
26366-080002	11	69
26577-060122	9	9
26716-060002	10	90
26716-120002	10	91
26756-060002	11	87
26979-050162	4	31
27241-120000	1	13
27241-250000	9	10
719515-01561	1	1

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719540-51490	10	1
719717-02901	1	26
719717-02911	1	34
719734-01500	2	4
977770-1207F	16	24
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X0280335360	14	33
X0280626010	14	12
X0280996180	14	3
X0281007680	14	2
X0282005871	14	6
X0283006960	14	7
X0284105040	14	13
X0284525010	14	27
X0285007030	14	10
X0285105190	14	4
X0285205030	14	5
X0286105010	14	15
X0286305010	14	17
X0286355010	14	18
X0287405140	14	19
X0534007800	14	20
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X4284001590	14	8
X9055715000	14	21
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X9490138100	14	26
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X9490560750	14	29
X9490561001	15	2
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