

0CD50-M01220EN

P R E F A C E

This parts catalog is the 1st edition of 3TNV88-BGGQ for GRUPEL.

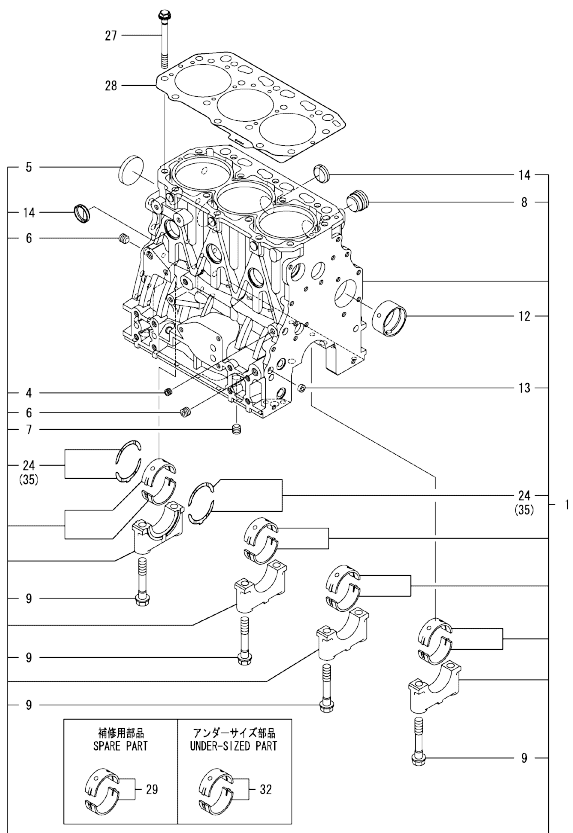
Published : April, 2015

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0CD50-M01220

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Fig.1. CYLINDER BLOCK

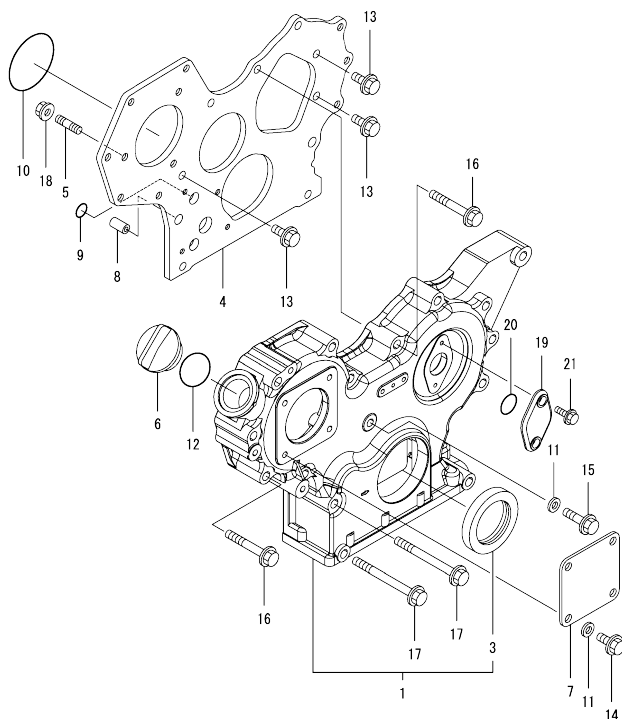


Remarks
(1)Spare parts.
(2)Under-sized(U.S.=0.25) parts.
(3)Over-sized(O.S.=0.25) parts.

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(B)=
(C)=

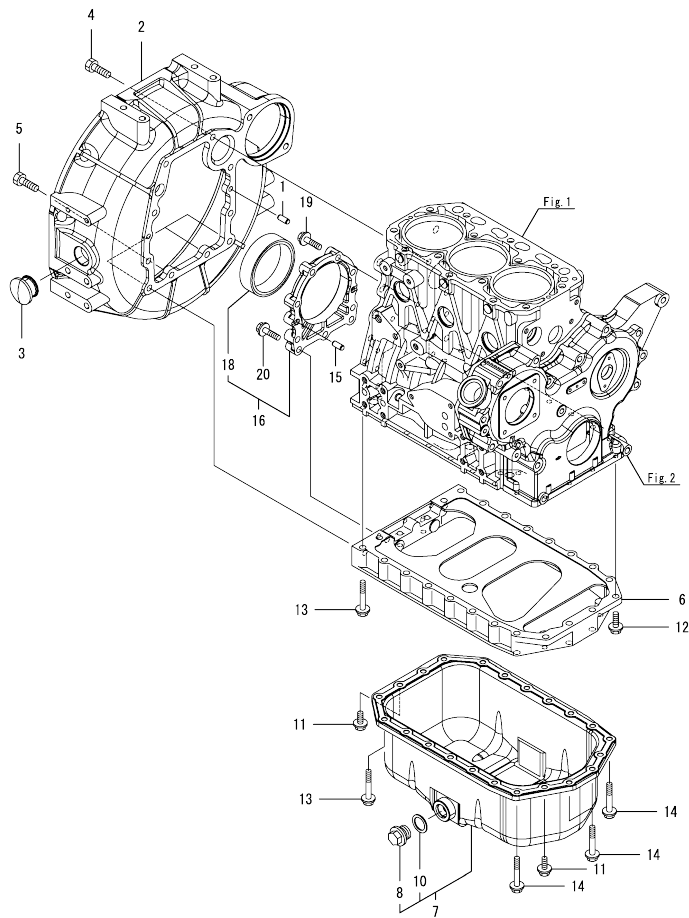
(D)=
(E)=
(F)=

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	729005-01560	BLOCK ASSY, CYLINDER	1							
4	2	124060-01050	PLUG, PT1/8	1							
5	2	129001-01250	PLUG, 50	1							
6	2	124160-01910	PLUG, PT1/4	2							
7	2	124160-01910	PLUG, PT1/4	1							
8	2	171051-01921	PLUG, NPTF1	1							
9	2	129150-02020	BOLT, METAL CAP	8							
12	2	129795-02412	BUSH, CAMSHAFT	1							
13	2	27241-120000	PLUG, 12	2							
14	2	27241-300000	PLUG 30	6							
24	2	129150-02931	BEARING, THRUST	2							
27	1	129150-01200	BOLT, HEAD	14							
28	1	129001-01340	GASKET, HEAD	1							
29	1	129001-02931	BEARING, MAIN	4							1
32	1	129150-02871	BEARING, 0.25 US	4							2
35	1	129150-02941	BEARING, THRUST 0.25	1							3



				(A)=3TNV88-BGGQ (B)= (C)=				(D)= (E)= (F)=				
No.	Lev.	Parts No.	Description	(A)	(B)	(C)	(D)	(E)	(F)	Qty	I	R
1	1	719803-01500	CASE ASSY, GEAR	1								
3	2	119934-01800	SEAL, OIL	1								
4	1	119803-01520	FLANGE, GEAR CASE	1								
5	1	119802-01561	STUD, M8X25	3								
6	1	124160-01751	COVER, FILLER	1								
7	1	124240-01871	COVER	1								
8	1	129795-01950	PIPE, KNOCK L=18	2								
9	1	119609-32040	O-RING, P16	2								
10	1	121850-51960	O-RING	1								
11	1	22190-080002	WASHER, SEAL 8	5								
12	1	24311-000320	O-RING, 1AP32.0	1								
13	1	26106-080162	BOLT, M8X 16 PLATED	3								
14	1	26106-080162	BOLT, M8X 16 PLATED	4								
15	1	26106-080302	BOLT, M8X 30 PLATED	1								
16	1	26106-080552	BOLT, M8X 55 PLATED	12								
17	1	26106-080852	BOLT, M8X 85 PLATED	3								
18	1	26306-080002	NUT, M8	3								
19	1	121023-01551	COVER	1								
20	1	24341-000240	O-RING, 1AS24.0	1								
21	1	26106-060162	BOLT, M6X 16 PLATED	2								

Fig.3. FLYWHEEL HOUSING & OIL SUMP

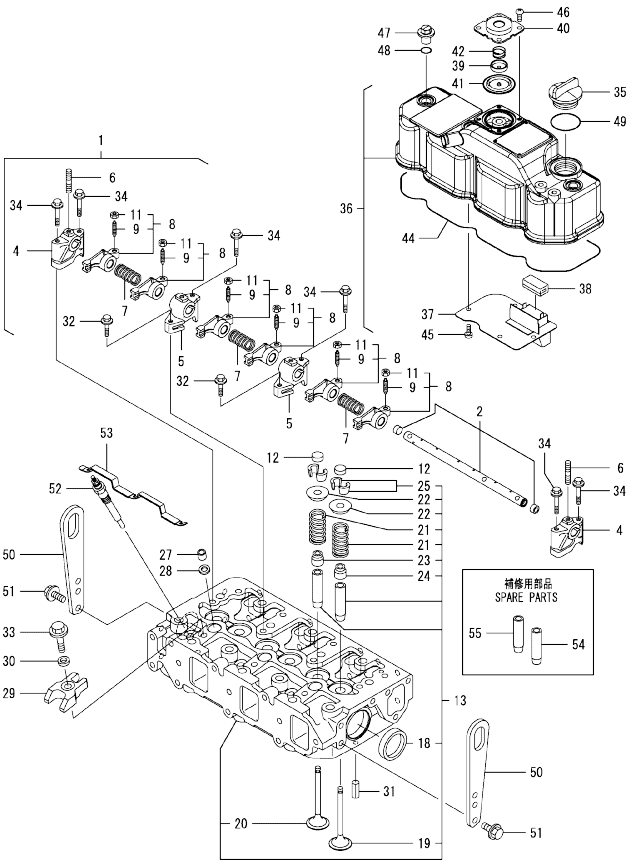


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(B)=
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No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129100-01580	PIN, 8X16	2							
2	1	171420-01600	HOUSING, FLYWHEEL	1							
3	1	119620-01750	CAP	1							
4	1	26206-100252	BOLT, M10X 25 PLATED	6							
5	1	26206-100302	BOLT, M10X 30 PLATED	4							
6	1	129100-01730	SPACER, OIL SUMP	1							
7	1	129100-01760	SUMP ASSY, OIL	1							
8	2	119640-01640	PLUG, DRAIN M22	1							
10	2	22190-220002	WASHER, SEAL 22	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	16							
14	1	26106-080502	BOLT, M8X 50 PLATED	4							
15	1	129100-01580	PIN, 8X16	2							
16	1	129100-01640	CASE ASSY, OIL SEAL	1							
18	2	129795-01780	SEAL, OIL	1							
19	1	129486-01670	BOLT, M8X30	6							
20	1	26106-080352	BOLT, M8X 35 PLATED	3							

Fig.4. CYLINDER HEAD & BONNET



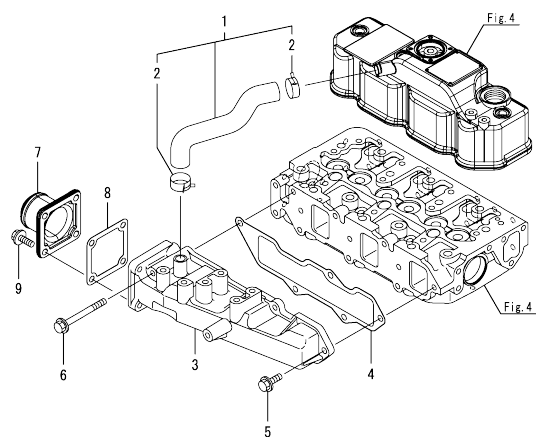
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(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129004-11241	SHAFT ASSY, ROCKER	1							
2	2	129004-11251	SHAFT, ROCKER ARM	1							
4	2	119802-11260	SUPPORT, ROCKER ARM	2							
5	2	119802-11270	SUPPORT, ROCKER ARM	2							
6	2	119802-11280	STUD	3							
7	2	129150-11280	SPRING	3							
8	2	129004-11650	ARM, ROCKER	6							
9	3	129150-11230	SCREW, VALVE ADJUST	6							
11	3	129150-11750	NUT, M8	6							
12	1	129150-11370	CAP, VALVE	6							
13	1	129008-11700	HEAD ASSY, CYLINDER	1							
18	2	27241-400000	PLUG, 40	2							
19	2	129005-11100	VALVE, INTAKE	3							
20	2	129100-11112	VALVE, EXHAUST	3							
21	2	129795-11120	SPRING, VALVE	6							
22	2	129795-11180	RETAINER, SPRING	6							
23	2	121400-11340	SEAL, VALVE STEM	3							
24	2	124460-11340	SEAL, VALVE STEM	3							
25	2	27310-080001	COTTER, 8	6							
27	1	119802-11870	PROTECTOR, NOZZLE	3							
28	1	119625-11880	SEAT, NOZZLE	3							
29	1	129004-11900	RETAINER, NOZZLE	3							
30	1	120270-54410	WASHER, INJECTOR	3							
31	1	22351-060012	PIN, SPRING 6.0X12	2							
32	1	26106-080252	BOLT, M8X 25 PLATED	2							
33	1	26106-080352	BOLT, M8X 35 PLATED	3							
34	1	26106-080502	BOLT, M8X 50 PLATED	6							
35	1	124160-01751	COVER, FILLER	1							
36	1	129004-11350	BONNET ASSY, HEAD	1							
37	2	129004-03010	PLATE	1							
38	2	129150-03070	BAFFLE, BREATHER	1							
39	2	119802-03110	PLATE	1							
40	2	119802-03121	COVER, DIAPHRAGM	1							
41	2	119802-03130	DIAPHRAGM	1							
42	2	119802-03141	SPRING, DIAPHRAGM	1							
44	2	129004-11310	GASKET, BONNET	1							
45	2	22857-500100	SCREW, 5X10	4							
46	2	22857-500100	SCREW, 5X10	4							
47	1	124160-11360	KNOB	3							
48	1	24311-000120	O-RING, 1AP12.0	3							
49	1	24311-000320	O-RING, 1AP32.0	1							
50	1	129900-07900	LIFTER	2							
51	1	26106-080162	BOLT, M8X 16 PLATED	4							
52	1	129008-77800	PLUG, GLOW	3							
53	1	129008-77820	CONNECTOR, GLOW PLUG	1							
54	1	120130-11860	GUIDE, VALVE	3							1
55	1	129150-11810	GUIDE, VALVE	3							1

Fig.5. SUCTION MANIFOLD & AIR CLEANER



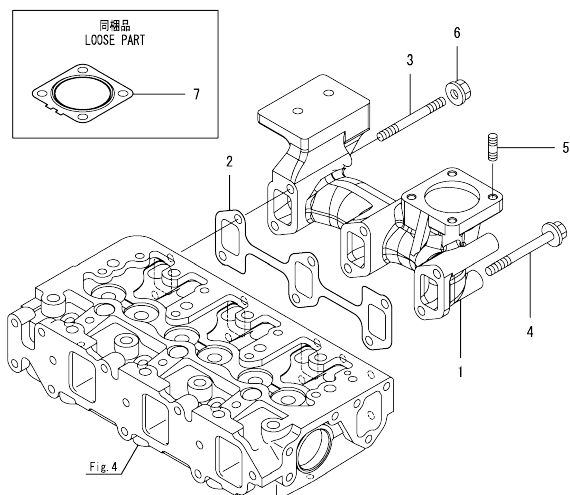
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(B)=
(C)=

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1	1	129004-03080	PIPE , BREATHER	1							
2	2	129410-03990	CLIP,HOSE 21.5	2							
3	1	129004-12101	MANIFOLD, AIR INTAKE	1							
4	1	129001-12110	GASKET, MANIFOLD	1							
5	1	26106-080202	BOLT, M8x 20 PLATED	4							
6	1	26106-080802	BOLT, M8x 80 PLATED	1							
7	1	129486-12581	JOINT, MANIFOLD	1							
8	1	129150-77511	GASKET	1							
9	1	26106-080202	BOLT, M8x 20 PLATED	4							
10	1	119910-12210	PIPE, AIR INTAKE	1							
11	1	119802-12530	CLEANER ASSY, AIR	1							
12	2	119808-12520	ELEMENT	1							
13	2	129051-12530	ELEMENT	1							
14	2	119808-12540	VALVE, UNLOADER	1							
15	2	119866-12541	COVER ASSY	1							
16	2	129612-12650	LABEL, MARKING	1							
17	2	126650-12680	INDICATOR	1							
18	1	23000-070000	CLAMP, 70	2							

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.6. EXHAUST MANIFOLD



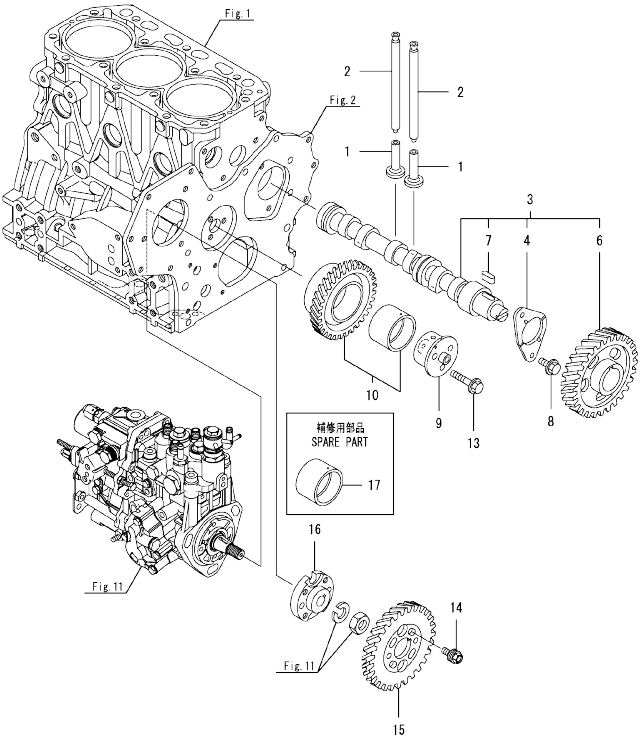
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(C)=

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

No.	Lev.	Parts No.	Description	(A)	(B)	(C)	(D)	(E)	(F)	I	R
1	1	129004-13109	MANIFOLD, EXHAUST	1							
2	1	129150-13110	GASKET	1							
3	1	123900-13610	STUD, M8X80	2							
4	1	129E00-13640	BOLT, M8X80 10.9T	4							
5	1	119131-18320	STUD, M8X22	4							
6	1	26306-080002	NUT, M8	2							
7	1	129004-13200	GASKET, SILENCER	1							

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.7. CAMSHAFT & DRIVING GEAR



Remarks
(1)Spare parts.

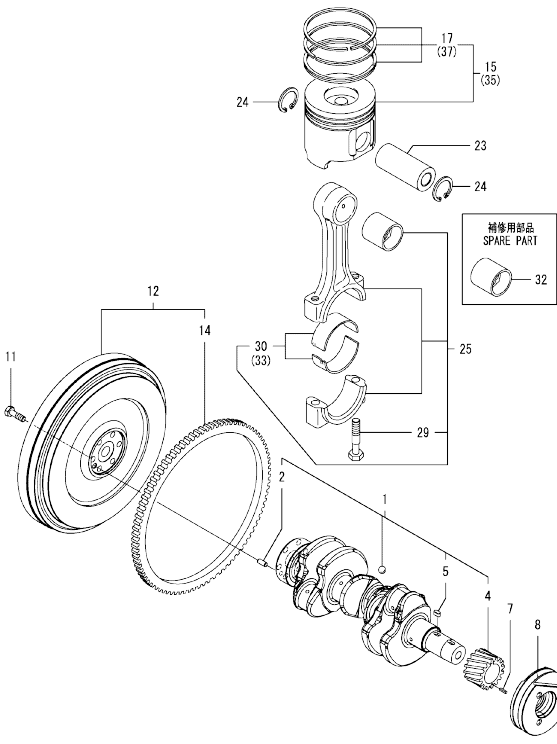
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(C)=

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

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				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129150-14200	TAPPET	6							
2	1	129150-14400	ROD, PUSH L=178	6							
3	1	129004-14580	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	119803-25050	SHAFT, IDLE	1							
10	1	119802-25101	GEAR ASSY, IDLE	1							
13	1	26106-080402	BOLT, M8X 40 PLATED	3							
14	1	129150-25301	BOLT	4							
15	1	119802-25901	GEAR, PUMP	1							
16	1	158552-51151	FLANGE	1							
17	1	119802-25071	BUSH, IDLE GEAR	1							1

OCD50-M01220 3TNV88-BGGQ

Fig.8. CRANKSHAFT & PISTON



Remarks
(1)Spare parts.
(2)Under-sized(U.S.=0.25) parts.
(3)Over-sized(O.S.=0.25) parts.

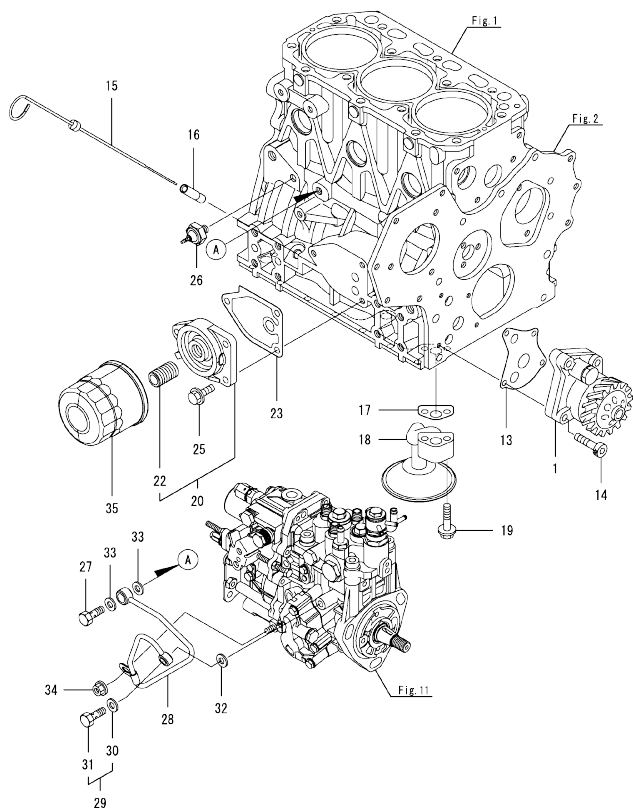
OCD50-M01220 Fig.8

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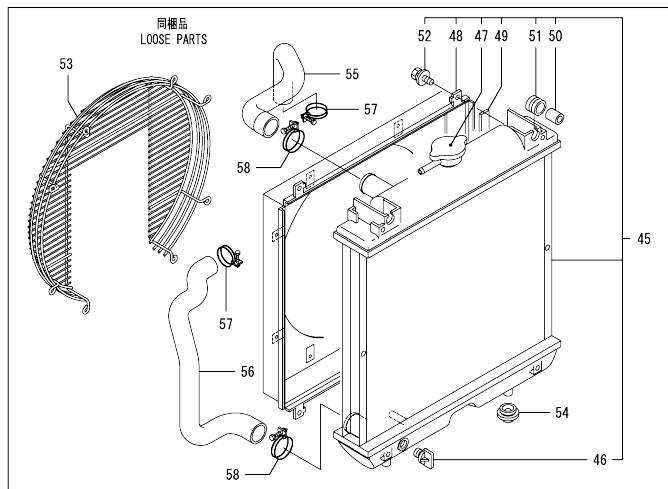
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1	1	129008-21000	CRANKSHAFT ASSY	1							
2	2	129100-01580	PIN, 8X16	1							
4	2	119803-21200	GEAR, CRANKSHAFT	1							
5	2	22512-070140	KEY, 7X 14	1							
7	1	22351-030010	PIN, SPRING 3.0X10	1							
8	1	129005-21650	V-PULLEY, 120	1							
9	1	129795-21661	WASHER	1							
10	1	121850-21680	BOLT	1							
11	1	121111-21501	BOLT, FLYWHEEL	6							
12	1	171340-21590	FLYWHEEL ASSY	1							
14	2	124550-21600	GEAR, RING	1							
15	1	129008-22080	PISTON ASSY	3							
17	2	129005-22500	RING SET, PISTON	3							
23	1	129202-22300	PIN, PISTON D26 L70	3							
24	1	22252-000260	RING, 26	6							
25	1	729402-23100	ROD ASSY, CONNECTING	3							
29	2	121550-23200	BOLT, CONNECTING ROD	6							
30	2	129150-23601	BEARING, CRANK PIN	3							
32	1	129100-23910	BEARING, PISTON PIN	3							1
33	1	129150-23611	BEARING, 0.25 US	3							2
35	1	129008-22900	PISTON ASSY, 0.25 OS	3							3
37	2	129005-22950	RING SET, 0.25 OS	3							3

OCD50-M01220 3TNV88-BGGQ
Fig.9. LUB. OIL SYSTEM



Remarks
(1)Spare parts.

OCD50-M01220 Fig.9											
				(A)=3TNV88-BGGQ	(D)=						
				(B)=	(E)=						
				(C)=	(F)=						
No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129001-32002	PUMP ASSY, OIL	1							
13	1	129150-32020	GASKET, PUMP	1							
14	1	26450-060252	BOLT, M6X 25	4							
15	1	129004-34802	DIPSTICK, OIL	1							
16	1	121520-34810	GUIDE, DIPSTICK	1							
17	1	129150-35042	GASKET	1							
18	1	129100-35301	PIPE ASSY, OIL INLET	1							
19	1	26106-080352	BOLT, M8X 35 PLATED	2							
20	1	119802-35100	BRACKET ASSY, FILTER	1							
22	2	129100-35140	STUD	1							
23	1	129150-35111	GASKET	1							
25	1	26106-080202	BOLT, M8X 20 PLATED	3							
26	1	114250-39450	SWITCH, 0.5KG	1							
27	1	124160-39140	BOLT, PIPE JOINT M10	1							
28	1	119802-39450	PIPE ASSY, OIL	1							
29	1	129005-59830	BOLT ASSY, JOINT M8	1							
30	2	22190-080002	WASHER, SEAL 8	1							
31	2	23857-030000	BOLT, JOINT 3	1							
32	1	22190-080002	WASHER, SEAL 8	1							
33	1	22190-100002	WASHER, SEAL 10	2							
34	1	26366-060002	NUT, M6	1							
35	1	129150-35153	FILTER	1							1
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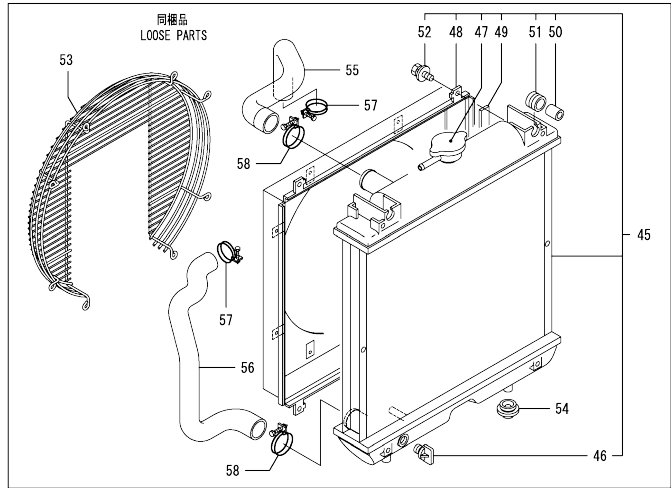


No.	Lev.	Parts No.	Description	Qty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129004-42001	PUMP ASSY, WATER	1							
3	2	129100-42051	GASKET, WATER PUMP	1							
4	2	129100-42121	PLATE	1							
9	2	119802-49113	JOINT, PIPE	2							
10	2	129916-49740	PLUG, R03	2							
11	2	23875-020000	PLUG, R02	1							
12	2	23876-010000	PLUG, R01	1							
13	2	26577-060142	SCREW M 6X 14	3							
14	1	129486-42021	GASKET, WATER PUMP	1							
15	1	129004-42040	JOINT	1							
16	1	129486-42140	O-RING, G30	1							
17	1	124395-49840	GASKET	1							
18	1	23414-080000	GASKET, 8X1.0	1							
19	1	26106-080122	BOLT, M8X 12 PLATED	1							
20	1	26106-080162	BOLT, M8X 16 PLATED	3							
21	1	26106-080452	BOLT, M8X 45 PLATED	1							
22	1	26106-080602	BOLT, M8X 60 PLATED	3							
23	1	129155-42350	V-PULLEY	1							
24	1	119831-42290	V-BELT, A37.5	1							
25	1	129030-44740	FAN, COOLING D360XUG	1							
26	1	121267-44760	SPACER	1							
27	1	26106-060302	BOLT, M6X 30 PLATED	4							
28	1	129155-49801	THERMOSTAT, 71	1							
29	1	129150-49811	GASKET, THERMOSTAT	1							
30	1	129350-49530	COVER, THERMOSTAT	1							
31	1	129795-49551	GASKET	1							
32	1	26106-080222	BOLT, M8X 22 PLATED	2							
33	1	171056-49120	PLUG, DRAIN	1							
34	1	121450-42450	PLUG, M16	1							
35	1	121250-44901	SWITCH, 110	1							
36	1	124465-44950	GASKET, 16	1							
37	1	124465-44950	GASKET, 16	1							
38	1	129004-49610	PIPE ASSY, WATER	1							
39	2	129004-49711	PIPE ASSY, WATER	1							
40	2	119802-49730	RETAINER, PIPE	1							
41	2	124722-59050	CLIP, HOSE 9	2							
42	1	129004-49620	PIPE ASSY, WATER	1							
43	2	129004-49721	PIPE ASSY, WATER	1							
44	2	124722-59050	CLIP, HOSE 9	2							
45	1	129044-44500	RADIATOR ASSY	1							
46	2	129508-44550	COCK ASSY	1							
47	2	129107-44590	CAP, RADIATOR	1							
48	2	129044-44600	SHROUD	1							
49	2	129601-44610	GASKET	2							
50	2	118400-44670	COLLAR	2							
51	2	118400-44720	MOUNT, RUBBER	2							
52	2	26014-060122	BOLT, M6X 12	4							
53	1	129601-44560	GUARD	1							
54	1	119255-44660	ABSORBER	4							
55	1	129602-49010	PIPE, WATER	1							
56	1	129612-49040	PIPE, WATER	1							

N:Old ☐ Yes ☐ No New, Q:Old ☐ Yes ☐ No New, R:Old ☐ Yes ☐ No New, S:Old ☐ Yes ☐ No New, W:Add, Z:Discontinued, F:Interchangeable by set, K:Q'ty Change
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Fig.10. COOLING WATER SYSTEM



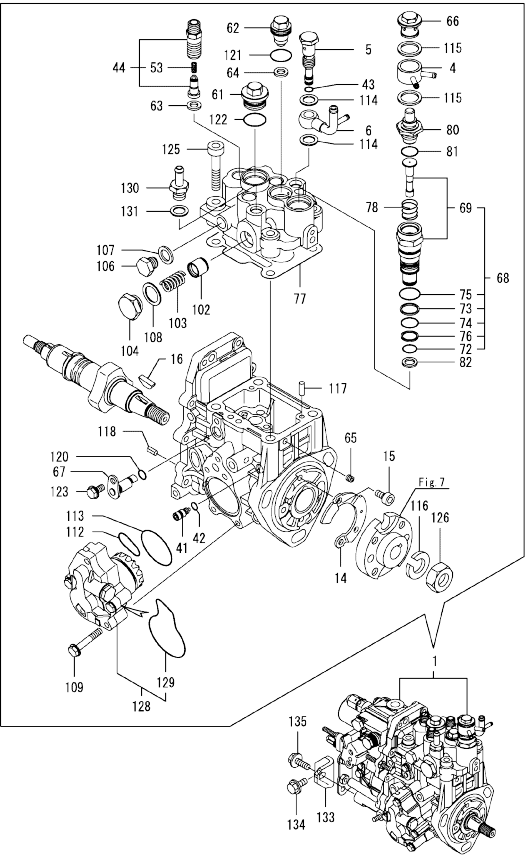
(A)=3TNV88-BGGQ
(B)=
(C)=

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

 $Q^{\#}$

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
57	1	23010-038000	CLAMP, 38	2							
58	1	23010-044000	CLAMP, 44	2							

Fig.11. FUEL INJECTION PUMP

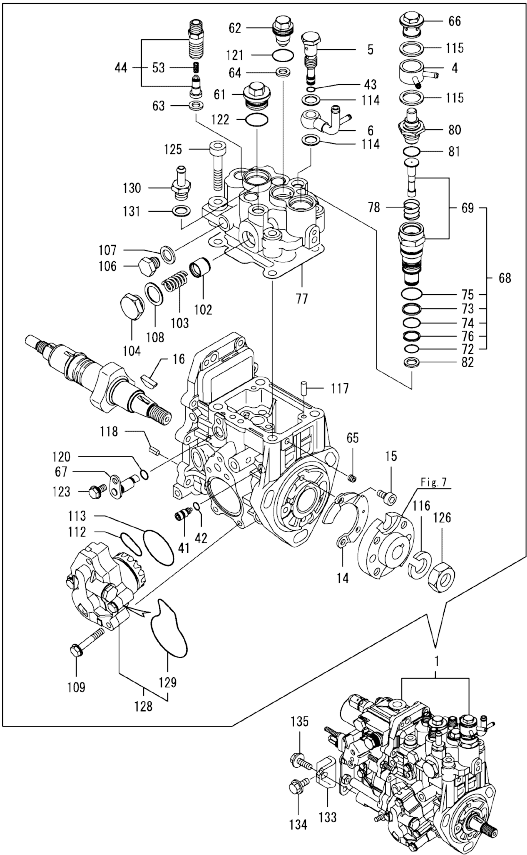


Remarks
(1)Governor(Fig.12) is incorporated in this Fuel Injection Pump(No.1).

										OCD50-M01220 Fig.11	
										(A)=3TNV88-BGGQ	
										(D)=	
										(E)=	
										(F)=	
										Q'ty	
										I R	
No.	Lev.	Parts No.	Description	(A)	(B)	(C)	(D)	(E)	(F)		
1	1	729283-51390	PUMP ASSY, INJECTION	1							1
4	2	158553-51551	JOINT	1							
5	2	158601-51650	JOINT, OVER FLOW	1							
6	2	158552-51670	JOINT, OVER FLOW	1							
14	2	129008-51900	COVER, GEAR CASE	1							
15	2	129008-51920	BOLT, M6X10	2							
16	2	119802-51090	KEY, 4X16	1							
41	2	158600-51270	STOPPER, TAPPET	1							
42	2	158563-51281	O-RING, 4D S6	1							
43	2	158563-51281	O-RING, 4D S6	1							
44	2	129008-51390	VALVE ASSY, DELIVERY	3							
53	3	158563-51330	SPRING, DELIVERY	3							
61	2	158601-51550	PLUG	1							
62	2	119802-51560	PLUG, BARREL	1							
63	2	158552-51571	GASKET	3							
64	2	158552-51571	GASKET	1							
65	2	158557-51570	PLUG	1							
66	2	158601-51570	PLUG	1							
67	2	158552-51580	LIFTER	1							
68	2	119802-51590	TIMER SET	1							
69	3	119802-51600	TIMER ASSY	1							
72	3	158553-51670	O-RING, 1011	1							
73	3	119802-51680	RING, BACK UP	1							
74	3	119802-51690	O-RING	1							
75	3	24356-190200	O-RING, 4D19020	1							
76	3	24372-000150	RING, BACK UP T2P15	1							
77	2	158552-51600	GASKET	1							
78	2	158553-51630	SPRING, TIMER	1							
80	2	158553-51640	ELEMENT	1							
81	2	158553-51660	O-RING, P14	1							
82	2	158553-51680	GASKET	1							
102	2	158601-51770	PISTON	1							
103	2	158552-51781	SPRING	1							
104	2	158601-51790	PLUG	1							
106	2	158553-51930	PLUG, M12	1							
107	2	22190-120002	WASHER, SEAL 12	1							
108	2	22190-180002	WASHER, SEAL 18	1							
109	2	158553-51770	BOLT	4							
112	2	158552-52311	O-RING	1							
113	2	158552-52400	O-RING, 4E S42	1							
114	2	22190-120002	WASHER, SEAL 12	2							
115	2	22190-180002	WASHER, SEAL 18	2							
116	2	22217-140000	WASHER, SPRING 14	1							
117	2	22312-050140	PIN, PARALLEL 5X14	2							
118	2	22351-050010	PIN, SPRING 5.0X10	2							
120	2	24311-000070	O-RING, 1AP7.0	1							
121	2	24356-190180	O-RING, 4D19018	1							
122	2	24356-190200	O-RING, 4D19020	1							
123	2	26106-060102	BOLT, M6X 10 PLATED	1							
125	2	26450-080452	BOLT, M8X 45	4							
126	2	26776-140002	NUT, LOCK M14	1							

N:Old $\frac{100}{100}$ New, O:Old $\frac{100}{100}$ New, R:Old $\frac{100}{100}$ New, S:Old $\frac{100}{100}$ New, W:Add, Z:Discontinued, F:Interchangeable by set, K:Q'ty Change
++ CONTINUE ++
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Fig.11. FUEL INJECTION PUMP



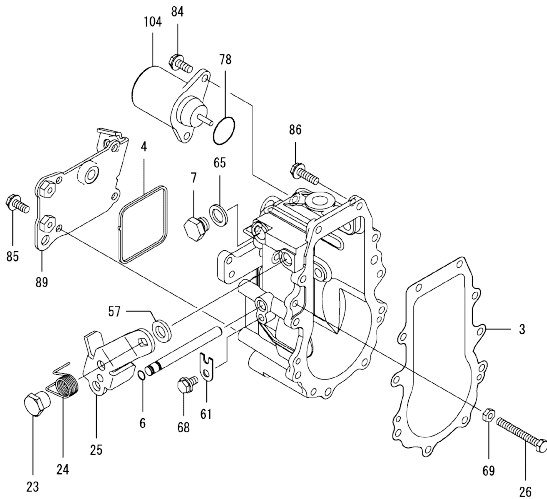
Remarks
(1)Governor(Fig.12) is incorporated in this Fuel Injection Pump(No.1).

(A)=3TNV88-BGGQ
(B)=
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
128	2	158552-52100	PUMP ASSY, FUEL FEED	1							
129	3	158552-52500	O-RING	1							
130	2	119934-59910	JOINT, PIPE	1							
131	2	22190-120002	WASHER, SEAL 12	1							
133	1	119802-51250	RETAINER, PUMP	1							
134	1	26106-080162	BOLT, M8X 16 PLATED	1							
135	1	26106-080202	BOLT, M8X 20 PLATED	1							

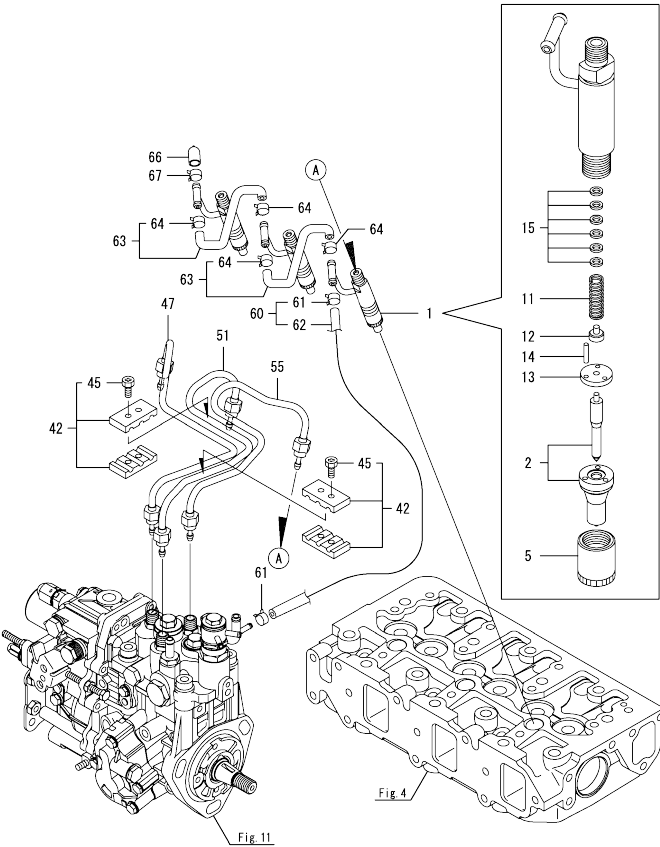
OCD50-M01220 3TNV88-BGGQ
Fig.12. GOVERNOR



Remarks
* This figure(Governor) is incorporated in the Fuel Injection Pump(Fig.11).

				OCD50-M01220 Fig.12							
				(A)=3TNV88-BGGQ	(D)=						
				(B)=	(E)=						
				(C)=	(F)=						
				Q'ty							
				(A)	(B)	(C)	(D)	(E)	(F)	I	R
No.	Lev.	Parts No.	Description	(A)	(B)	(C)	(D)	(E)	(F)	I	R
3	2	158553-61050	GASKET	1							
4	2	158553-61070	GASKET	1							
6	2	129155-51280	O-RING, S6	1							
7	2	158553-51930	PLUG, M12	1							
23	2	129255-61410	NUT, LOCK	1							
24	2	119807-61420	SPRING, RETURN	1							
25	2	129246-61441	LEVER, REGULATOR	1							
26	2	129155-61460	BOLT, IDLE	1							
57	2	158552-61700	SHIM SET	1							
61	2	119660-61901	RETAINER, SHAFT	1							
65	2	22190-120002	WASHER, SEAL 12	1							
68	2	26106-060102	BOLT, M6X 10 PLATED	1							
69	2	26756-060002	NUT, LOCK M6	1							
78	2	158552-61900	O-RING	1							
84	2	26106-060142	BOLT, M6X 14 PLATED	2							
85	2	26106-060142	BOLT, M6X 14 PLATED	4							
86	2	26106-060202	BOLT, M6X 20 PLATED	10							
89	2	129246-61061	COVER, GOVERNOR CASE	1							
104	2	119653-77950	SOLENOID, STOP	1							

Fig.13. FUEL INJECTION VALVE

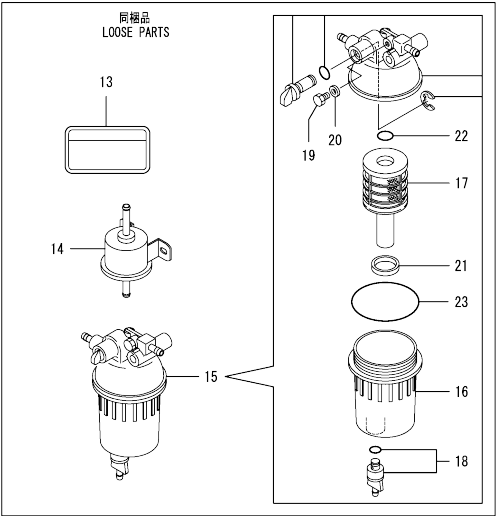
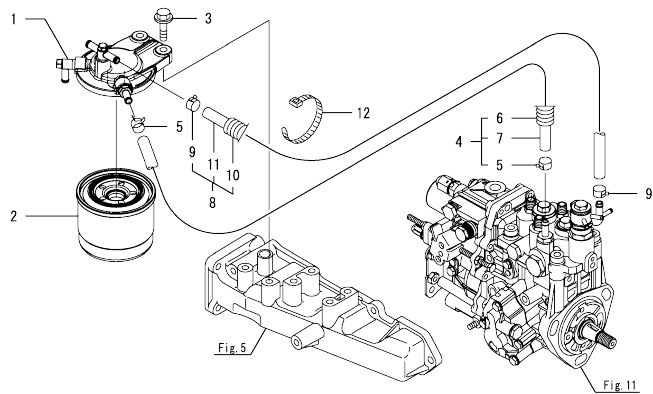


(A)=3TNV88-BGGQ
(B)=
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	729283-53100	VALVE ASSY,INJECTION	3							
2	2	129283-53000	VALVE ASSY,INJECTION	3							
5	2	114250-53080	NUT, NOZZLE D16.95	3							
11	2	114250-53120	SPRING, NOZZLE	3							
12	2	114250-53130	SEAT, SPRING	3							
13	2	114250-53140	PLATE	3							
14	2	114250-53210	PIN	6							
15	2	119803-53400	SHIM SET	3							
42	1	129150-59120	RETAINER, PIPE	2							
45	2	129150-59131	BOLT, M4X14	4							
47	1	129004-59811	PIPE ASSY, INJECTION	1							
51	1	129004-59821	PIPE ASSY, INJECTION	1							
55	1	129004-59831	PIPE ASSY, INJECTION	1							
60	1	119802-59550	PIPE ASSY, RETURN	1							
61	2	124722-59050	CLIP, HOSE 9	2							
62	2	119802-59560	PIPE, FUEL RETURN	1							
63	1	129486-59551	PIPE ASSY, RETURN	2							
64	2	124722-59050	CLIP, HOSE 9	4							
66	1	119593-59581	CAP	1							
67	1	124060-77680	CLIP, HOSE 10	1							

Fig.14. FUEL PIPE



(A)=3TNV88-BGGQ
(B)=
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129004-55612	BRACKET, FILTER	1							
2	1	119802-55801	FILTER, FUEL	1							
3	1	26106-080302	BOLT, M8X 30 PLATED	2							
4	1	129044-59010	PIPE, D13/7.5X220	1							
5	2	124766-59050	CLIP, HOSE 11.5	2							
6	2	129044-59100	TUBE, CORRUGATED	1							
7	2	129044-59510	PIPE, FUEL 220	1							
8	1	129950-59311	PIPE, FUEL	1							
9	2	124766-59050	CLIP, HOSE 11.5	2							
10	2	129961-59110	TUBE, CORRUGATED	1							
11	2	105025-59580	PIPE, FUEL	1							
12	1	121750-59890	BAND, 140	1							
13	1	114110-07761	LABEL, FUEL OIL CAUT	1							
14	1	119225-52102	PUMP ASSY, FUEL FEED	1							
15	1	129242-55701	SEPARATOR ASSY	1							
16	2	129242-55720	CUP	1							
17	2	129242-55730	ELEMENT	1							
18	2	129242-55740	PLUG, DRAIN	1							
19	2	129242-55750	VALVE, AIR VENT	1							
20	2	129242-55760	GASKET	1							
21	2	129242-55770	FLOAT	1							
22	2	24311-000160	O-RING, 1AP16.0	1							
23	2	24321-000750	O-RING, 1AG75.0	1							

Fig.15. STARTER MOTOR

(A)=3TNV88-BGGQ
(B)=
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129129-77010	STARTER ASSY	1							
2	2	X0283060061	ROLLER	5							
3	2	129129-77460	SCREW	2							
4	2	X9490561370	NUT	1							
5	2	X9491200240	BALL	1							
6	2	129129-77210	YOKE ASSY	1							
7	2	129129-77220	ARMATURE ASSY	1							
8	3	129129-77230	BEARING, BALL	1							
9	3	129129-77240	BEARING, BALL	1							
10	2	129129-77250	STARTER	1							
11	3	X0280210230	NUT	1							
12	3	X0283270140	RETAINER	1							
13	3	X9491703371	SPRING, COIL	1							
14	3	129129-77390	CLUTCH ASSY	1							
17	3	129129-77400	SHAFT	1							
18	3	129129-77410	SPRING, COIL	1							
19	3	129129-77420	PINION, STARTER	1							
20	3	129129-77430	RING	1							
21	2	129129-77260	RETAINER	1							
22	2	129129-77270	PINION	1							
23	2	129129-77280	HOUSING	1							
24	2	129129-77290	FRAME	1							
25	2	129129-77300	HOLDER ASSY	1							
26	3	X9491730461	SPRING	4							
27	2	129129-77310	SWITCH ASSY	1							
28	2	129129-77320	BOLT	2							
29	2	129129-77330	BOLT	2							
30	2	129129-77340	SPRING	1							
31	2	129129-77350	O-RING	2							
32	2	129129-77362	COVER	1							
34	2	129129-77380	CAP	1							
35	1	26106-120252	BOLT, M12X 25 PLATED	2							

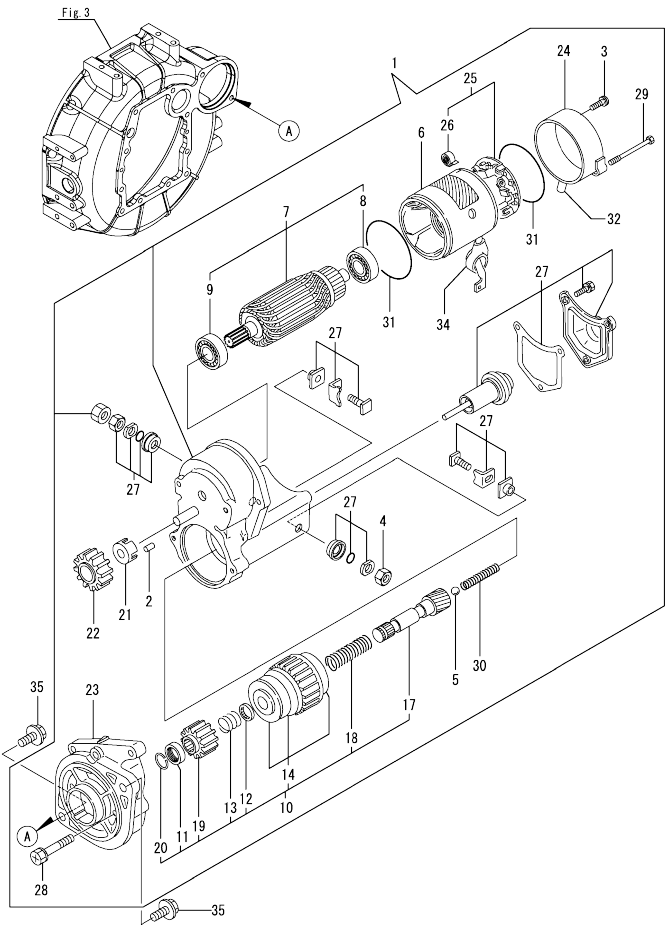
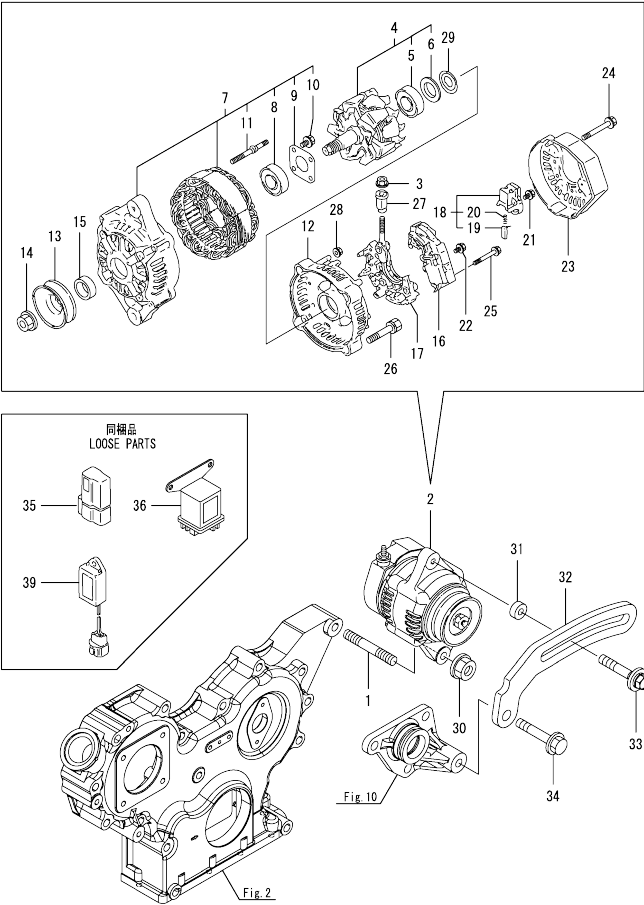


Fig.16. GENERATOR



											OCD50-M01220		Fig.16	
											(A)=3TNV88-BGGQ		(D)=	
											(B)=		(E)=	
											(C)=		(F)=	
No.	Lev.	Parts No.	Description	Q'ty						I	R			
				(A)	(B)	(C)	(D)	(E)	(F)					
1	1	129795-01900	STUD							1				
2	1	129423-77200	GENERATOR, 12V-40A							1				
3	2	X9490561001	NUT							1				
4	2	119620-77380	ROTOR ASSY							1				
5	3	123501-79240	BEARING, BALL							1				
6	3	119620-79250	COVER							1				
7	2	119620-77421	FRAME ASSY, DRIVE							1				
8	3	119620-79200	BEARING, BALL							1				
9	3	119620-79210	PLATE, RETAINER							1				
10	3	119620-79220	SCREW							4				
11	3	119620-79230	STUD							2				
12	2	119620-77440	FRAME ASSY							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	129240-79300	COVER							1				
24	2	119620-79310	BOLT							3				
25	2	119620-79320	SCREW							2				
26	2	119620-79330	BOLT							2				
27	2	119620-79340	BUSH, INSULATION							1				
28	2	119620-79350	NUT							2				
29	2	119620-79360	WASHER, THRUST							1				
30	1	26306-100002	NUT, M10							1				
31	1	119940-77270	SPACER, GENERATOR							1				
32	1	119940-77330	ADJUSTER							1				
33	1	129972-77341	BOLT, ADJUSTER L=50							1				
34	1	26106-080452	BOLT, M8X 45 PLATED							1				
35	1	119643-66900	DIODE							1				
36	1	119650-77911	RELAY ASSY, GLOW							1				
39	1	129211-77920	TIMER							1				

Parts No. Index

Parts No.	Fig. No.	Ref. No.
105025-59580	14	11
114110-07761	14	13
114250-39450	9	26
114250-53080	13	5
114250-53120	13	11
114250-53130	13	12
114250-53140	13	13
114250-53210	13	14
118400-44670	10	50
118400-44720	10	51
119131-18320	6	5
119225-52102	14	14
119255-44660	10	54
119593-59581	13	66
119609-32040	2	9
119620-01750	3	3
119620-77380	16	4
119620-77421	16	7
119620-77440	16	12
119620-77461	16	13
119620-77471	16	14
119620-77480	16	19
119620-77490	16	15
119620-79200	16	8
119620-79210	16	9
119620-79220	16	10
119620-79230	16	11
119620-79250	16	6
119620-79260	16	17
119620-79280	16	20
119620-79290	16	21
119620-79300	16	22
119620-79310	16	24
119620-79320	16	25
119620-79330	16	26
119620-79340	16	27
119620-79350	16	28
119620-79360	16	29
119625-11880	4	28
119640-01640	3	8
119643-66900	16	35
119650-77911	16	36
119653-77950	12	104
119660-61901	12	61
119802-01561	2	5
119802-03110	4	39
119802-03121	4	40
119802-03130	4	41
119802-03141	4	42
119802-11260	4	4

Parts No.	Fig. No.	Ref. No.
119802-11270	4	5
119802-11280	4	6
119802-11870	4	27
119802-12530	5	11
119802-25071	7	17
119802-25101	7	10
119802-25901	7	15
119802-35100	9	20
119802-39450	9	28
119802-49113	10	9
119802-49730	10	40
119802-51090	11	16
119802-51250	11	133
119802-51560	11	62
119802-51590	11	68
119802-51600	11	69
119802-51680	11	73
119802-51690	11	74
119802-55801	14	2
119802-59550	13	60
119802-59560	13	62
119803-01520	2	4
119803-21200	8	4
119803-25050	7	9
119803-53400	13	15
119807-61420	12	24
119808-12520	5	12
119808-12540	5	14
119831-42290	10	24
119866-12541	5	15
119910-12210	5	10
119934-01800	2	3
119934-59910	11	130
119940-77270	16	31
119940-77330	16	32
120130-11860	4	54
120270-54410	4	30
121023-01551	2	19
121111-21501	8	11
121250-44901	10	35
121267-44760	10	26
121400-11340	4	23
121450-42450	10	34
121520-34810	9	16
121550-23200	8	29
121750-59890	14	12
121850-21680	8	10
121850-51960	2	10
123501-79240	16	5
123900-13610	6	3

Parts No.	Fig. No.	Ref. No.
124060-01050	1	4
124060-77680	13	67
124160-01751	2	6
	4	35
124160-01910	1	6
		7
124160-11360	4	47
124160-39140	9	27
124240-01871	2	7
124395-49840	10	17
124460-11340	4	24
124465-44950	10	36
		37
124550-21600	8	14
124722-59050	10	41
		44
	13	61
		64
124766-59050	14	5
		9
126650-12680	5	17
129001-01250	1	5
129001-01340	1	28
129001-02931	1	29
129001-12110	5	4
129001-32002	9	1
129004-03010	4	37
129004-03080	5	1
129004-11241	4	1
129004-11251	4	2
129004-11310	4	44
129004-11350	4	36
129004-11650	4	8
129004-11900	4	29
129004-12101	5	3
129004-13109	6	1
129004-13200	6	7
129004-14580	7	3
129004-34802	9	15
129004-42001	10	1
129004-42040	10	15
129004-49610	10	38
129004-49620	10	42
129004-49711	10	39
129004-49721	10	43
129004-55612	14	1
129004-59811	13	47
129004-59821	13	51
129004-59831	13	55
129005-11100	4	19

Parts No.	Fig. No.	Ref. No.
129005-21650	8	8
129005-22500	8	17
129005-22950	8	37
129005-59830	9	29
129008-11700	4	13
129008-21000	8	1
129008-22080	8	15
129008-22900	8	35
129008-51390	11	44
129008-51900	11	14
129008-51920	11	15
129008-77800	4	52
129008-77820	4	53
129030-44740	10	25
129044-44500	10	45
129044-44600	10	48
129044-59010	14	4
129044-59100	14	6
129044-59510	14	7
129051-12530	5	13
129052-79270	16	18
129100-01580	3	1
		15
	8	2
129100-01640	3	16
129100-01730	3	6
129100-01760	3	7
129100-11112	4	20
129100-23910	8	32
129100-35140	9	22
129100-35301	9	18
129100-42051	10	3
129100-42121	10	4
129107-44590	10	47
129129-77010	15	1
129129-77210	15	6
129129-77220	15	7
129129-77230	15	8
129129-77240	15	9
129129-77250	15	10
129129-77260	15	21
129129-77270	15	22
129129-77280	15	23
129129-77290	15	24
129129-77300	15	25
129129-77310	15	27
129129-77320	15	28
129129-77330	15	29
129129-77340	15	30
129129-77350	15	31

Parts No. Index

Parts No.	Fig. No.	Ref. No.
129129-77362	15	32
129129-77380	15	34
129129-77390	15	14
129129-77400	15	17
129129-77410	15	18
129129-77420	15	19
129129-77430	15	20
129129-77460	15	3
129150-01200	1	27
129150-02020	1	9
129150-02450	7	4
129150-02871	1	32
129150-02931	1	24
129150-02941	1	35
129150-03070	4	38
129150-11230	4	9
129150-11280	4	7
129150-11370	4	12
129150-11750	4	11
129150-11810	4	55
129150-13110	6	2
129150-14101	7	6
129150-14200	7	1
129150-14400	7	2
129150-23601	8	30
129150-23611	8	33
129150-25301	7	14
129150-32020	9	13
129150-35042	9	17
129150-35111	9	23
129150-35153	9	35
129150-49811	10	29
129150-59120	13	42
129150-59131	13	45
129150-77511	5	8
129155-42350	10	23
129155-49801	10	28
129155-51280	12	6
129155-61460	12	26
129202-22300	8	23
129211-77920	16	39
129240-79300	16	23
129242-55701	14	15
129242-55720	14	16
129242-55730	14	17
129242-55740	14	18
129242-55750	14	19
129242-55760	14	20
129242-55770	14	21
129246-61061	12	89

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129255-61410	12	23
129283-53000	13	2
129350-49530	10	30
129410-03990	5	2
129423-77200	16	2
129423-77710	16	16
129486-01670	3	19
129486-12581	5	7
129486-42021	10	14
129486-42140	10	16
129486-59551	13	63
129508-44550	10	46
129601-44560	10	53
129601-44610	10	49
129602-49010	10	55
129612-12650	5	16
129612-49040	10	56
129795-01780	3	18
129795-01900	16	1
129795-01950	2	8
129795-02412	1	12
129795-11120	4	21
129795-11180	4	22
129795-21661	8	9
129795-49551	10	31
129900-07900	4	50
129916-49740	10	10
129950-59311	14	8
129961-59110	14	10
129972-77341	16	33
129E00-13640	6	4
158552-51151	7	16
158552-51571	11	63
		64
158552-51580	11	67
158552-51600	11	77
158552-51670	11	6
158552-51781	11	103
158552-52100	11	128
158552-52311	11	112
158552-52400	11	113
158552-52500	11	129
158552-61700	12	57
158552-61900	12	78
158553-51551	11	4
158553-51630	11	78
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158553-51660	11	81
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158553-61070	12	4
158557-51570	11	65
158563-51281	11	42
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158563-51330	11	53
158600-51270	11	41
158601-51550	11	61
158601-51570	11	66
158601-51650	11	5
158601-51770	11	102
158601-51790	11	104
171051-01921	1	8
171056-49120	10	33
171340-21590	8	12
171420-01600	3	2
22190-080002	2	11
	9	30
		32
22190-100002	9	33
22190-120002	11	107
		114
		131
	12	65
22190-180002	11	108
		115
22190-220002	3	10
22217-140000	11	116
22252-000260	8	24
22312-050140	11	117
22351-030010	8	7
22351-050010	11	118
22351-060012	4	31
22512-070140	7	7
	8	5
22857-500100	4	45
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23000-070000	5	18
23010-038000	10	57
23010-044000	10	58
23414-080000	10	18
23857-030000	9	31
23875-020000	10	11
23876-010000	10	12
24311-000070	11	120
24311-000120	4	48

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24311-000320	2	12
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24321-000750	14	23
24341-000240	2	20
24356-190180	11	121
24356-190200	11	75
		122
24372-000150	11	76
26014-060122	10	52
26106-060102	11	123
	12	68
26106-060142	12	84
		85
26106-060162	2	21
26106-060202	12	86
26106-060302	10	27
26106-080122	10	19
26106-080142	7	8
26106-080162	2	13
		14
	3	11
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	10	20
	11	134
26106-080202	5	5
		9
	9	25
	11	135
26106-080222	10	32
26106-080252	3	12
	4	32
26106-080302	2	15
	14	3
26106-080352	3	20
	4	33
	9	19
26106-080402	7	13
26106-080452	3	13
	10	21
	16	34
26106-080502	3	14
	4	34
26106-080552	2	16
26106-080602	10	22
26106-080802	5	6
26106-080852	2	17
26106-120252	15	35
26206-100252	3	4
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26366-060002	9	34
26450-060252	9	14
26450-080452	11	125
26577-060142	10	13
26756-060002	12	69
26776-140002	11	126
27241-120000	1	13
27241-300000	1	14
27241-400000	4	18
27310-080001	4	25
719803-01500	2	1
729005-01560	1	1
729283-51390	11	1
729283-53100	13	1
729402-23100	8	25
X0280210230	15	11
X0283060061	15	2
X0283270140	15	12
X9490561001	16	3
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