

0CD50-M00090EN

# P R E F A C E

This parts catalog is the 1st edition of 4TNV88-BLCR for Carraro.

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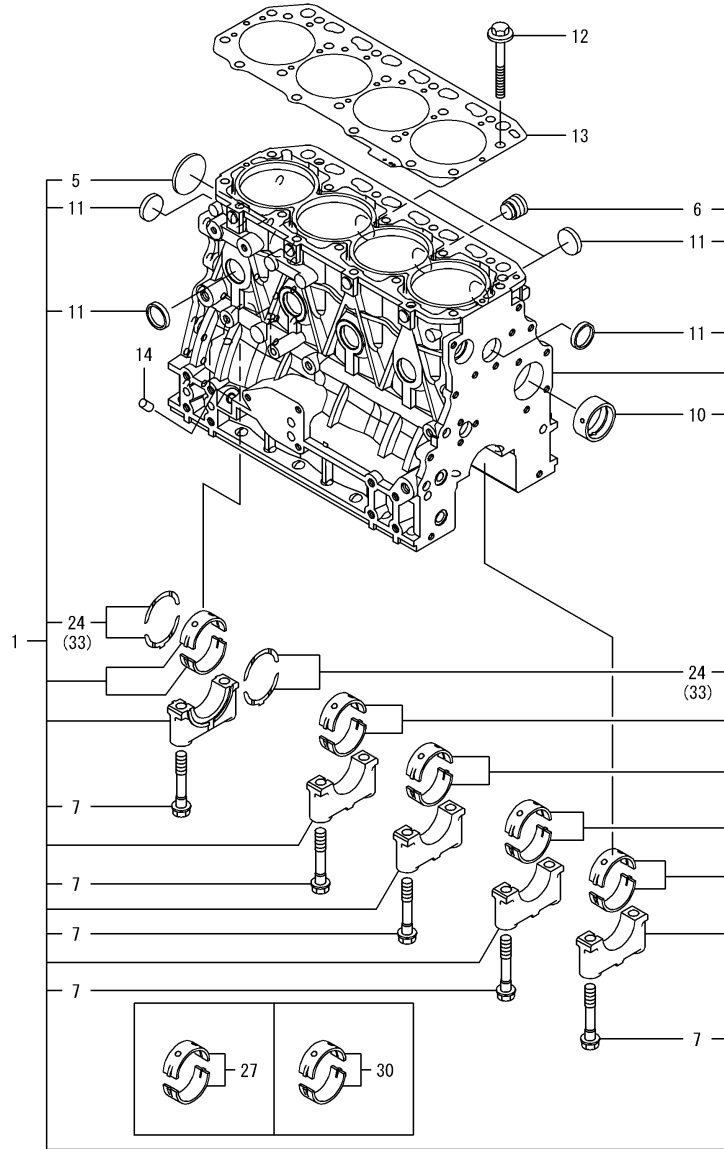
Fig. No.    Fig. Name

## 4TNV88-BLCR

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2. GEAR HOUSING
3. MOUNTING FLANGE & OIL SUMP
4. CYLINDER HEAD & BONNET
5. SUCTION MANIFOLD
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7. CAMSHAFT & DRIVING GEAR
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13. GOVERNOR
14. FUEL INJECTION VALVE
15. STARTING MOTOR
16. ACCESSORY

Fig. No.    Fig. Name

Fig.1. CYLINDER BLOCK



(A)=4TNV88-BLCR  
(B)=  
(C)=

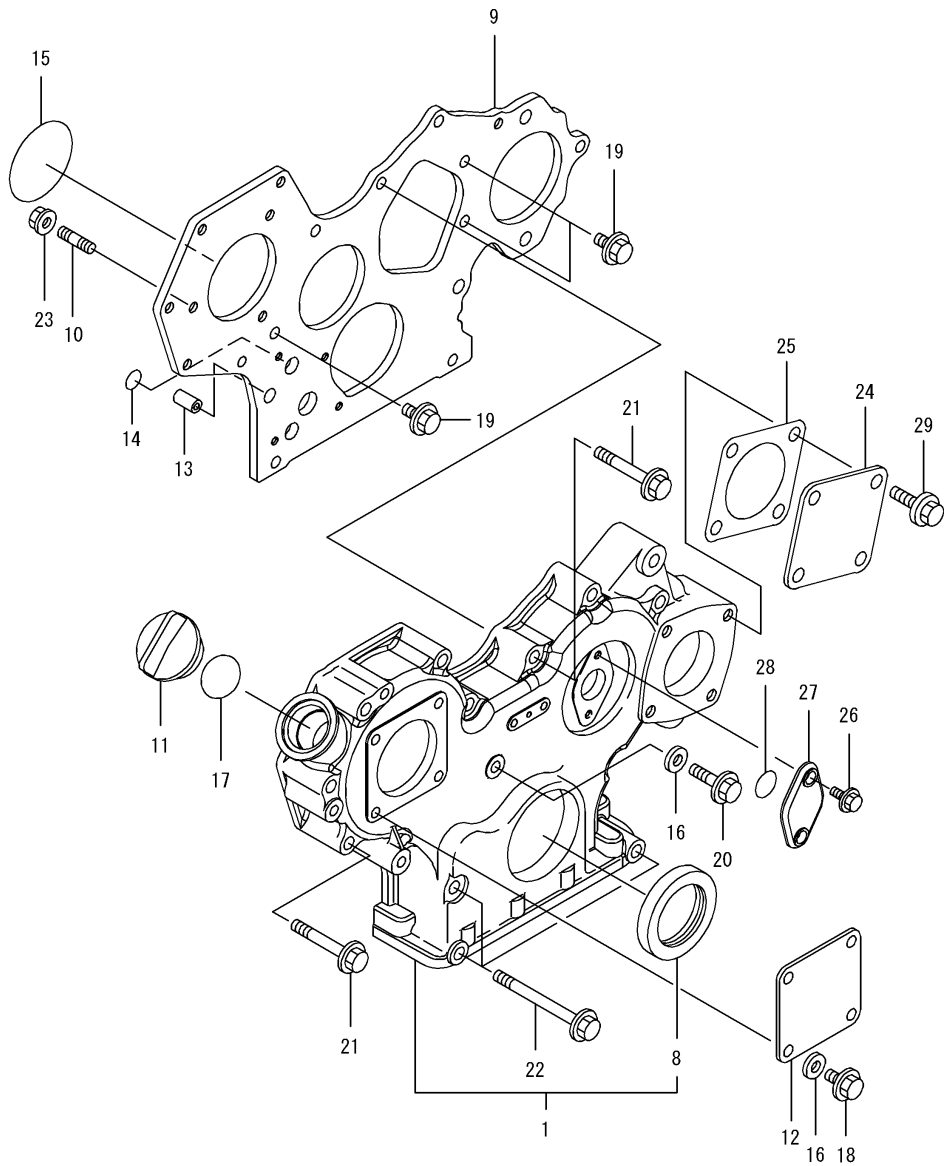
(D)=  
(E)=  
(F)=

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	729659-01570	BLOCK ASSY, CYLINDER	1							
5	2	129001-01250	PLUG, 50	1							
6	2	171051-01921	PLUG, NPTF1	1							
7	2	129150-02020	BOLT, METAL CAP	10							
10	2	129795-02412	BUSH, CAMSHAFT	1							
11	2	27241-300000	PLUG 30	8							
12	1	129150-01200	BOLT, HEAD	18							
13	1	129407-01340	GASKET, HEAD	1							
14	1	119309-01810	PLUG	1							
24	1	129150-02931	BEARING, THRUST	5							
27	1	129001-02931	BEARING, MAIN	5							1
30	1	129150-02871	BEARING, 0.25 US	5							2
33	1	129150-02941	BEARING, THRUST 0.25	2							3

Remarks

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

Fig.2. GEAR HOUSING

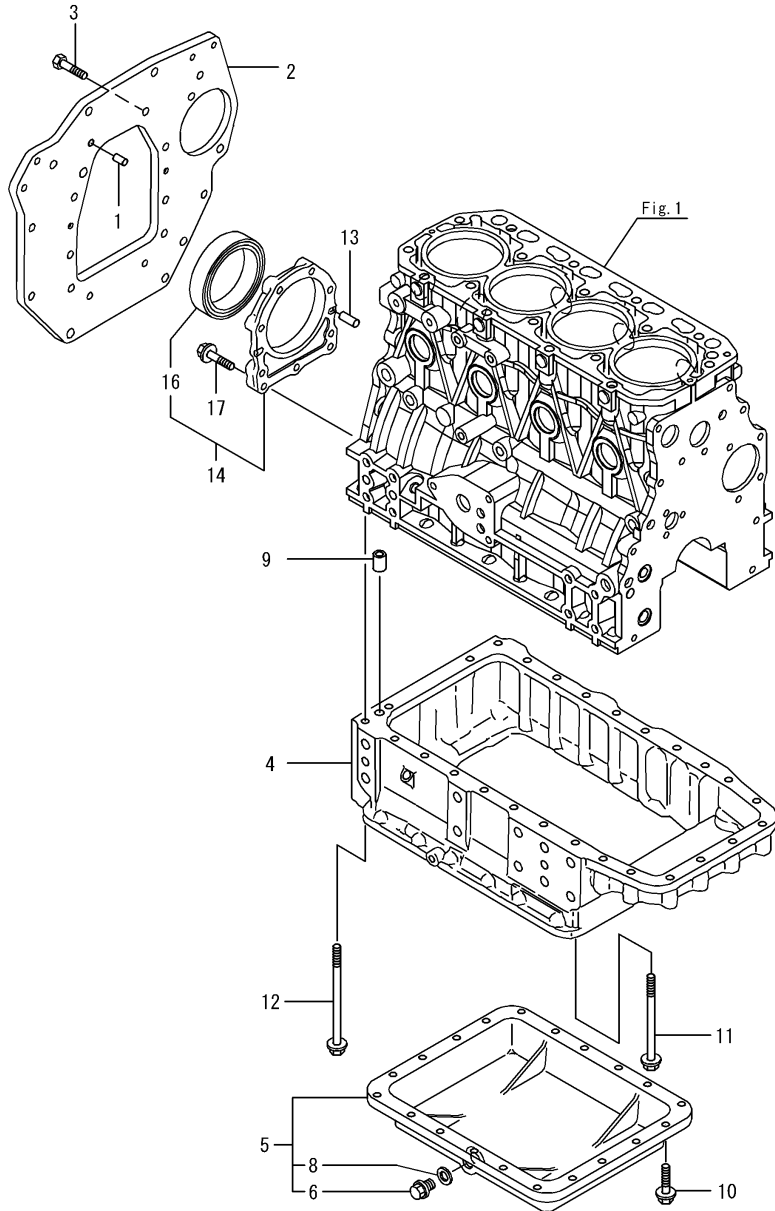


(A)=4TNV88-BLCR  
(B)=  
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	729652-01500	CASE ASSY, GEAR	1							
8	2	119934-01800	SEAL, OIL	1							
9	1	129604-01520	FLANGE, GEAR CASE	1							
10	1	119802-01561	STUD, M8X25	3							
11	1	124160-01751	COVER, FILLER	1							
12	1	124240-01871	COVER	1							
13	1	129795-01950	PIPE, KNOCK L=18	2							
14	1	119609-32040	O-RING, P16	2							
15	1	121850-51960	O-RING	1							
16	1	22190-080002	WASHER, SEAL 8	5							
17	1	24311-000320	O-RING, 1AP32.0	1							
18	1	26106-080162	BOLT, M8X 16 PLATED	4							
19	1	26106-080162	BOLT, M8X 16 PLATED	3							
20	1	26106-080302	BOLT, M8X 30 PLATED	1							
21	1	26106-080552	BOLT, M8X 55 PLATED	10							
22	1	26106-080852	BOLT, M8X 85 PLATED	3							
23	1	26306-080002	NUT, M8	3							
24	1	124240-01871	COVER	1							
25	1	129C26-01890	GASKET, HO-P	1							
26	1	26106-080162	BOLT, M8X 16 PLATED	4							
27	1	121023-01551	COVER	1							
28	1	24341-000240	O-RING, 1AS24.0	1							
29	1	26106-060162	BOLT, M6X 16 PLATED	2							

Fig.3. MOUNTING FLANGE & OIL SUMP



(A)=4TNV88-BLCR

(B)=

(C)=

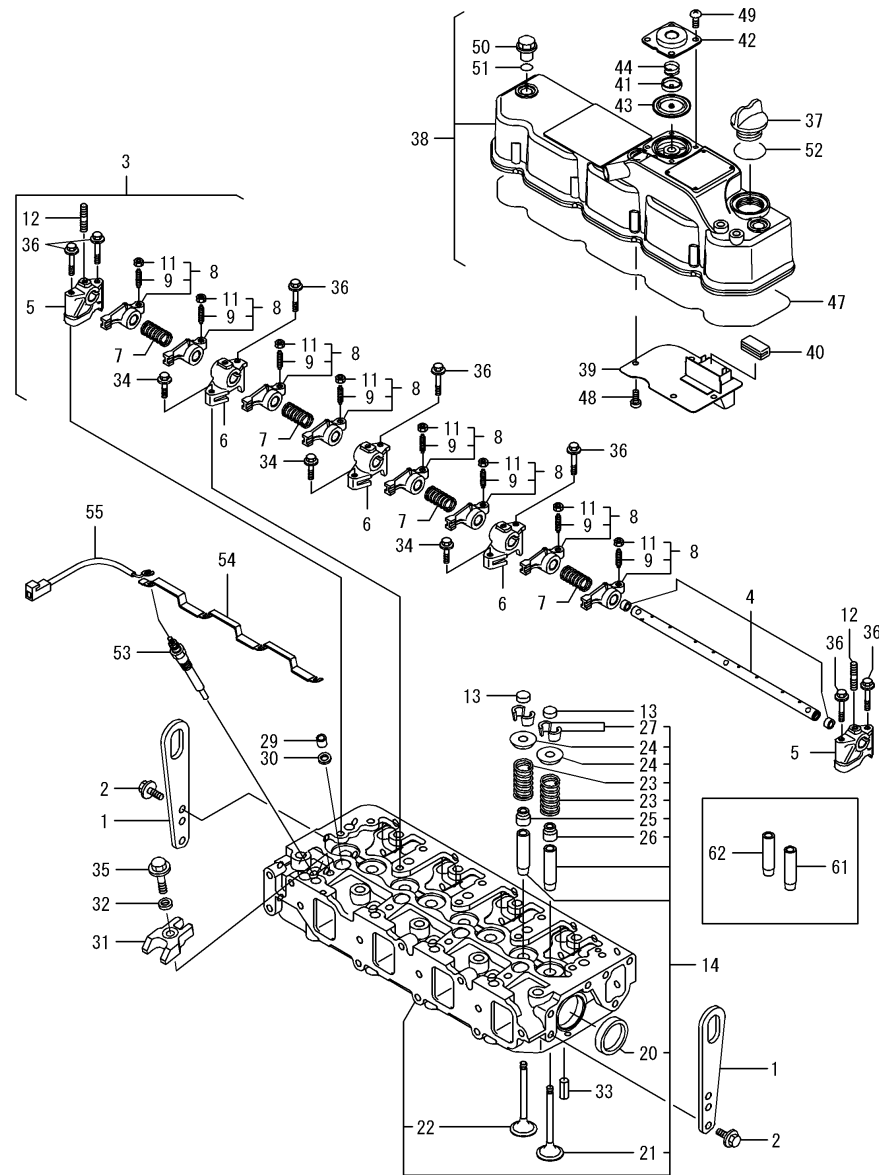
(D)=

(E)=

(F)=

No.	Lev.	Parts No.	Description	Qty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129100-01580	PIN, 8X16	2							
2	1	129129-01600	FLANGE, MOUNTING	1							
3	1	26206-100202	BOLT, M10X 20 PLATED	8							
4	1	129550-01702	SUMP, OIL	1							
5	1	129657-01730	COVER ASSY, OIL SUMP	1							
6	2	105425-01690	PLUG, 16	1							
8	2	22190-160002	WASHER, SEAL 16	1							
9	1	129555-01750	PIPE, KNOCK 14X18	1							
10	1	26106-080252	BOLT, M8X 25 PLATED	20							
11	1	26106-081002	BOLT, M8X100 PLATED	14							
12	1	26106-081202	BOLT, M8X120 PLATED	4							
13	1	129100-01580	PIN, 8X16	2							
14	1	129100-01640	CASE ASSY, OIL SEAL	1							
16	2	129795-01780	SEAL, OIL	1							
17	1	129486-01670	BOLT, M8X30	9							

Fig.4. CYLINDER HEAD & BONNET



(A)=4TNV88-BLCR

(B)=

(C)=

(D)=

(E)=

(F)=

No.	Lev.	Parts No.	Description	Qty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129900-07900	LIFTER	2							
2	1	26106-080162	BOLT, M8X 16 PLATED	4							
3	1	129601-11241	SHAFT ASSY, ROCKER	1							
4	2	129601-11251	SHAFT, ROCKER ARM	1							
5	2	119802-11260	SUPPORT, ROCKER ARM	2							
6	2	119802-11270	SUPPORT, ROCKER ARM	3							
7	2	129150-11280	SPRING	4							
8	2	129004-11650	ARM, ROCKER	8							
9	3	129150-11230	SCREW, VALVE ADJUST	8							
11	3	129150-11750	NUT, M8	8							
12	2	26226-080182	STUD, M8X 18	3							
13	1	129150-11370	CAP, VALVE	8							
14	1	129604-11700	HEAD ASSY, CYLINDER	1							
20	3	27241-400000	PLUG, 40	2							
21	2	129005-11100	VALVE, INTAKE	4							
22	2	129100-11112	VALVE, EXHAUST	4							
23	2	129795-11120	SPRING, VALVE	8							
24	2	129795-11180	RETAINER, SPRING	8							
25	2	121400-11340	SEAL, VALVE STEM	4							
26	2	124460-11340	SEAL, VALVE STEM	4							
27	2	27310-080001	COTTER, 8	8							
29	1	119802-11870	PROTECTOR, NOZZLE	4							
30	1	119625-11880	SEAT, NOZZLE	4							
31	1	129004-11900	RETAINER, NOZZLE	4							
32	1	120270-54410	WASHER, INJECTOR	4							
33	1	22351-060012	PIN, SPRING 6.0X12	2							
34	1	26106-080252	BOLT, M8X 25 PLATED	3							
35	1	26106-080352	BOLT, M8X 35 PLATED	4							
36	1	26106-080502	BOLT, M8X 50 PLATED	7							
37	1	124160-01751	COVER, FILLER	1							
38	1	129601-11350	BONNET ASSY, HEAD	1							
39	2	129004-03010	PLATE	1							
40	2	129150-03070	BAFFLE, BREATHER	1							
41	2	119802-03110	PLATE	1							
42	2	119802-03121	COVER, DIAPHRAGM	1							
43	2	119802-03130	DIAPHRAGM	1							
44	2	119802-03141	SPRING, DIAPHRAGM	1							
47	2	129601-11310	GASKET, BONNET	1							
48	2	22857-500100	SCREW, 5X10	1							
49	2	22857-500100	SCREW, 5X10	4							
50	1	124160-11360	KNOB	3							
51	1	24311-000120	O-RING, 1AP12.0	3							
52	1	24311-000320	O-RING, 1AP32.0	1							
53	1	129008-77800	PLUG, GLOW	4							
54	1	129604-77821	CONNECTOR, GLOW PLUG	1							
55	1	119803-77830	HARNES, WIRE	1							
61	1	120130-11860	GUIDE, VALVE	4							1
62	1	129150-11810	GUIDE, VALVE	4							1

Remarks

(1) Spare part.

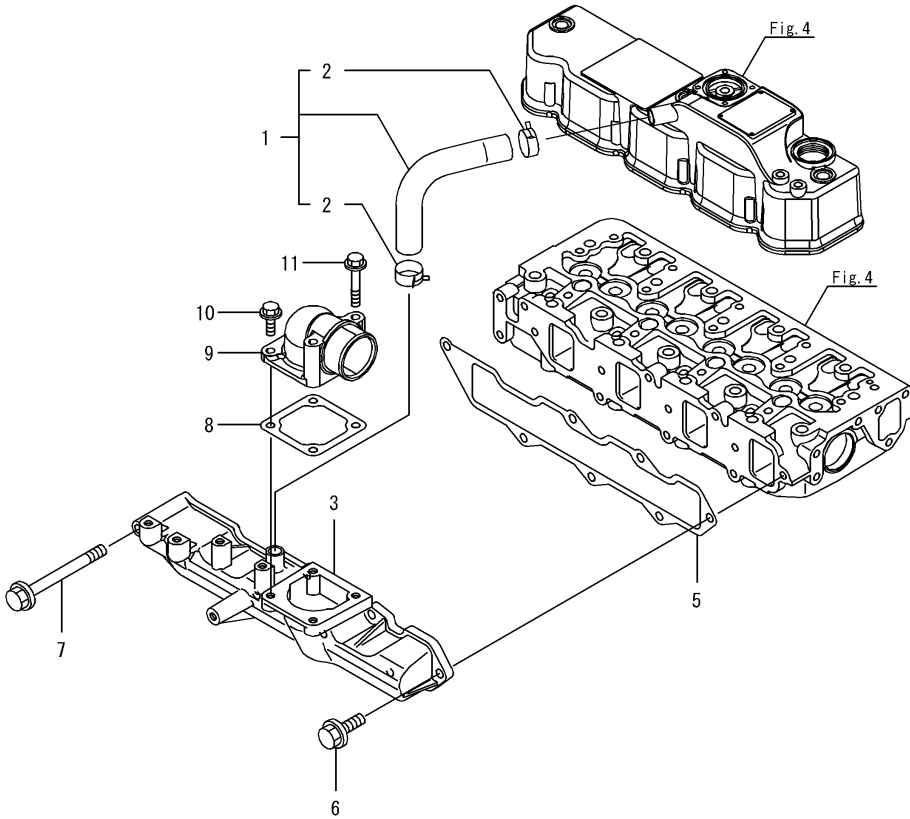
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Fig.5. SUCTION MANIFOLD

(A)=4TNV88-BLCR  
(B)=  
(C)=

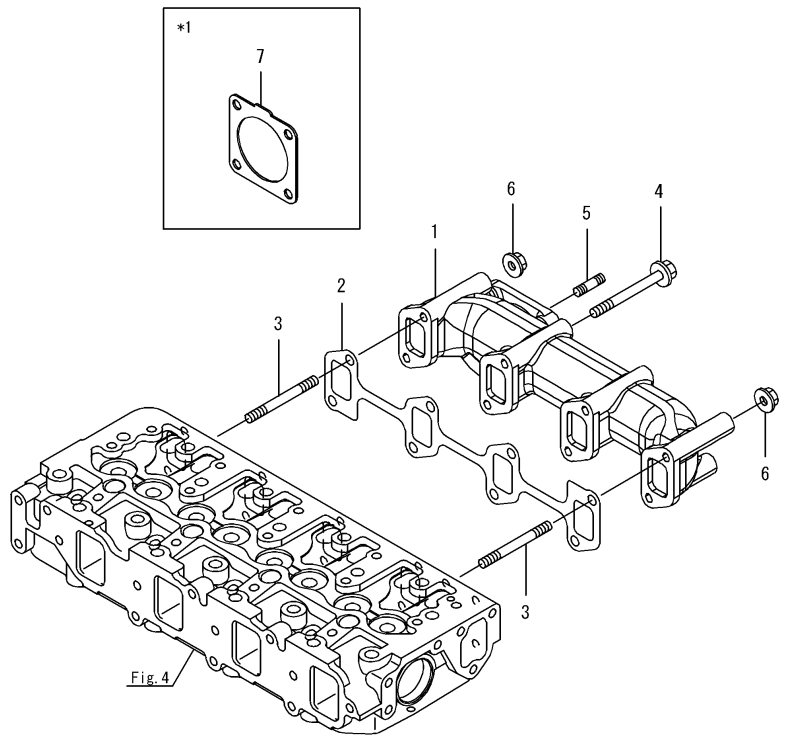
(D)=  
(E)=  
(F)=

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129005-03080	PIPE , BREATHER	1							
2	2	129410-03990	CLIP,HOSE 21.5	2							
3	1	129602-12101	MANIFOLD, AIR INTAKE	1							
5	1	129407-12110	GASKET, MANIFOLD	1							
6	1	26106-080202	BOLT, M8X 20 PLATED	6							
7	1	26106-080802	BOLT, M8X 80 PLATED	1							
8	1	129150-77511	GASKET	1							
9	1	171340-77520	BEND	1							
10	1	26106-080252	BOLT, M8X 25 PLATED	2							
11	1	26106-080652	BOLT, M8X 65 PLATED	2							





# Fig.6. EXHAUST MANIFOLD



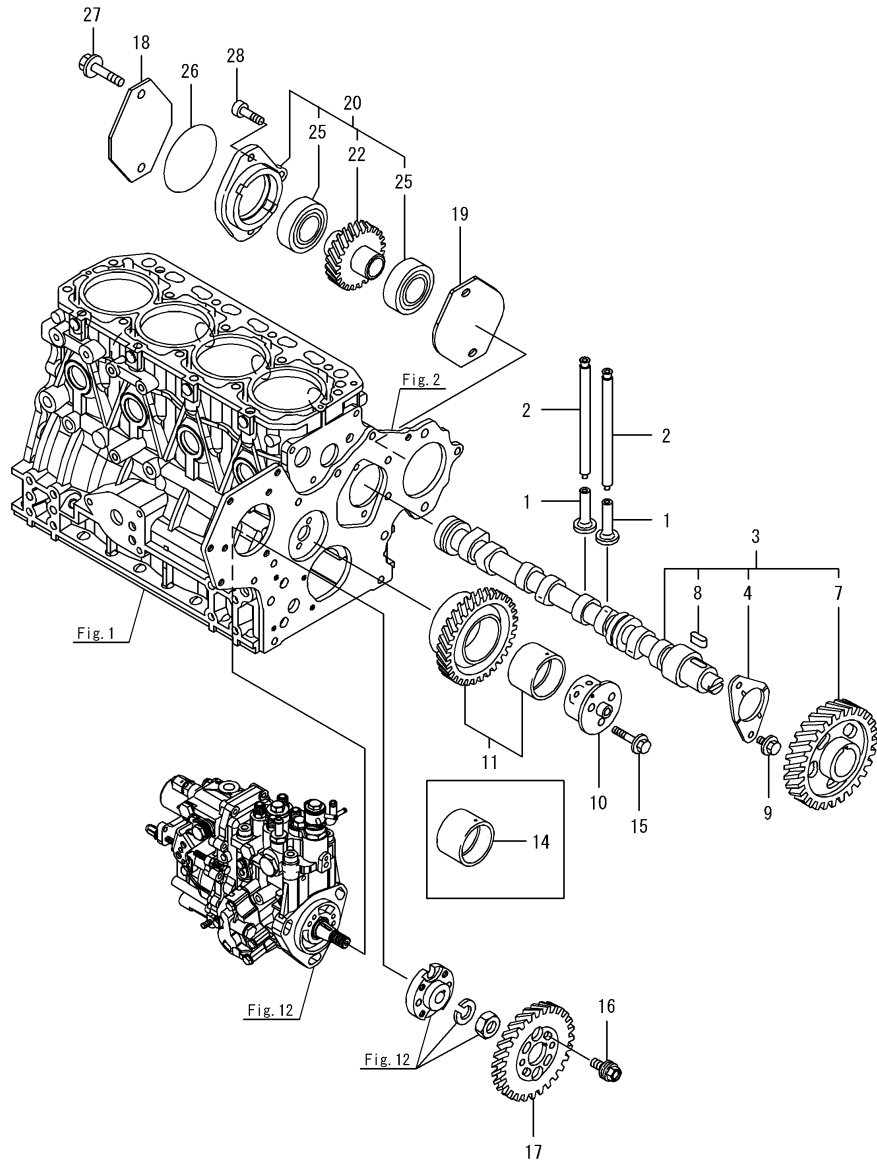
(A)=4TNV88-BLCR  
(B)=  
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129400-13101	MANIFOLD, EXHAUST	1							
2	1	129550-13110	GASKET	1							
3	1	123900-13610	STUD, M8X80	2							
4	1	123900-13630	BOLT, M8X80	6							
5	1	119131-18320	STUD, M8X22	4							
6	1	26306-080002	NUT, M8	2							
7	1	129930-13201	GASKET, SILENCER	1							

Remarks  
\*1.Loose parts.

Fig.7. CAMSHAFT & DRIVING GEAR



(A)=4TNV88-BLCR

(B)=

(C)=

(D)=

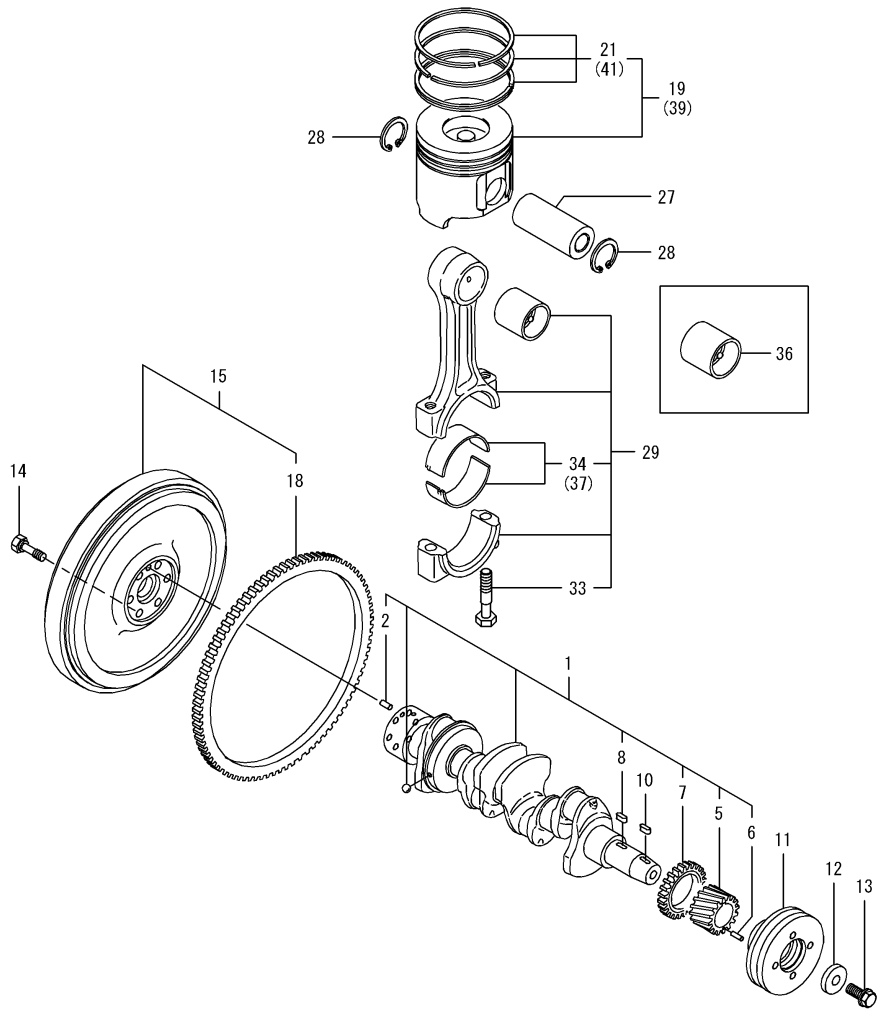
(E)=

(F)=

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129150-14200	TAPPET	8							
2	1	129150-14400	ROD, PUSH L=178	8							
3	1	729402-14580	CAMSHAFT ASSY	1							
4	2	129150-02450	BEARING, THRUST	1							
7	2	129150-14101	GEAR, CAMSHAFT	1							
8	2	22512-070140	KEY, 7X 14	1							
9	1	26106-080142	BOLT, M8X 14 PLATED	2							
10	1	119803-25050	SHAFT, IDLE	1							
11	1	119802-25101	GEAR ASSY, IDLE	1							
14	1	119802-25071	BUSH, IDLE GEAR	1							1
15	1	26106-080402	BOLT, M8X 40 PLATED	3							
16	1	129150-25301	BOLT	4							
17	1	119802-25901	GEAR, PUMP	1							
18	1	121023-26071	COVER	1							
19	1	171353-26081	GASKET	1							
20	1	129484-26200	DRIVE ASSY, PUMP	1							
22	2	129484-26210	GEAR ASSY	1							
25	2	24105-060064	BEARING, BALL 6006Z	2							
26	1	24321-000850	O-RING, 1AG85.0	1							
27	1	26106-100452	BOLT, M10X 45 PLATED	2							
28	1	26450-080282	BOLT, M8X 28	1							

Remarks  
(1)Spare part.

Fig.8. CRANKSHAFT & PISTON



(A)=4TNV88-BLCR

(B)=

(C)=

(D)=

(E)=

(F)=

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129652-21010	CRANKSHAFT ASSY	1							
2	2	129100-01580	PIN, 8X16	1							
5	2	119803-21200	GEAR, CRANKSHAFT	1							
6	2	121850-21290	PIN	1							
7	2	129400-28121	GEAR, BALANCER	1							
8	2	22512-070140	KEY, 7X 14	1							
10	1	22512-070140	KEY, 7X 14	1							
11	1	119852-21650	V-PULLEY, 120	1							
12	1	129795-21661	WASHER	1							
13	1	121850-21680	BOLT	1							
14	1	124160-21501	BOLT, FLYWHEEL	6							
15	1	119953-21580	FLYWHEEL ASSY	1							
18	2	119865-21600	GEAR, RING	1							
19	1	129005-22080	PISTON ASSY	4							
21	2	129005-22500	RING SET, PISTON	4							
27	1	129202-22300	PIN, PISTON D26 L70	4							
28	1	22252-000260	RING, 26	8							
29	1	729402-23100	ROD ASSY, CONNECTING	4							
33	2	121550-23200	BOLT, CONNECTING ROD	8							
34	2	129150-23601	BEARING, CRANK PIN	4							
36	1	129100-23910	BEARING, PISTON PIN	4							1
37	1	129150-23611	BEARING, 0.25 US	4							2
39	1	129005-22900	PISTON ASSY, 0.25 OS	4							3
41	2	129005-22950	RING SET, 0.25 OS	4							3

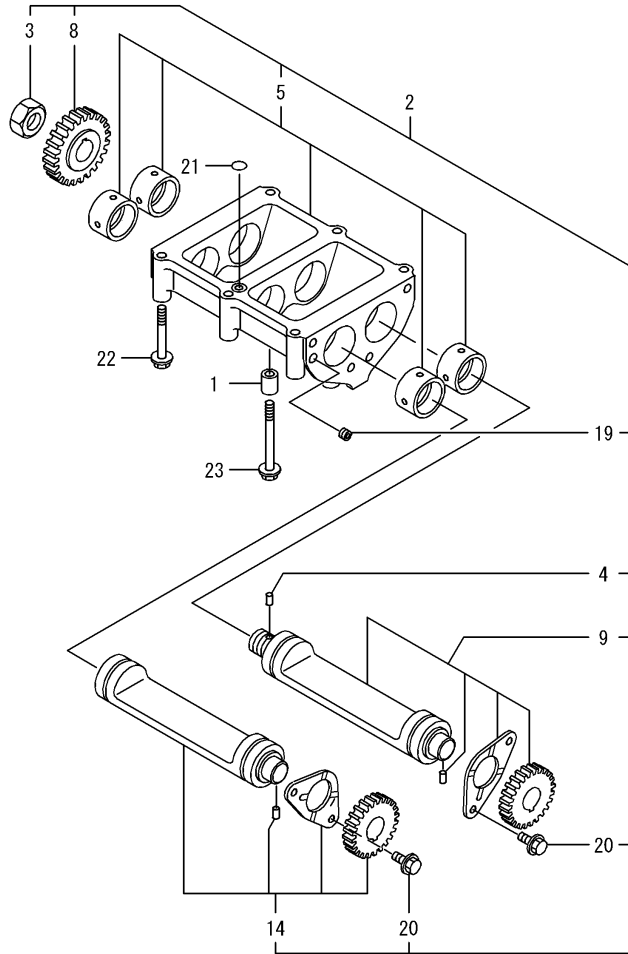
Remarks

(1) Spare part.

(2) Under-sized (U.S.=0.25) part.

(3) Over-sized (O.S.=0.25) part.

Fig.9. BALANCER

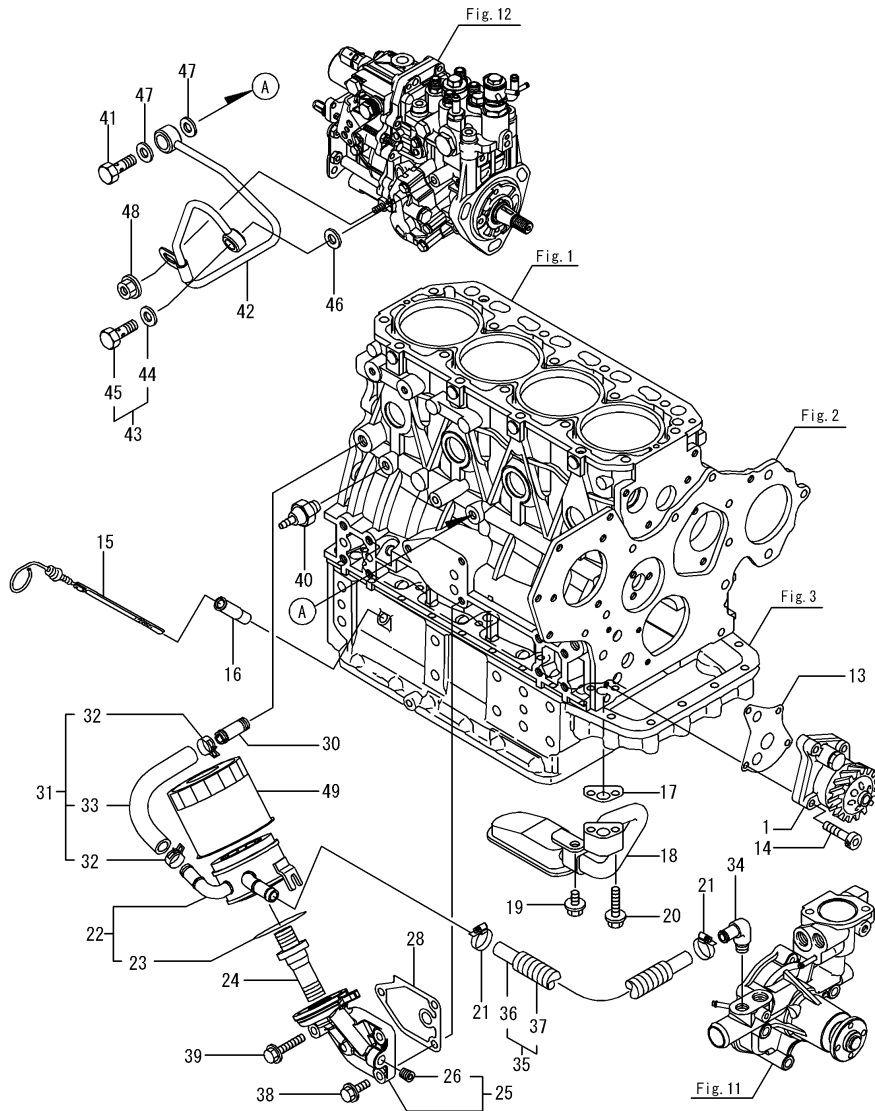


(A)=4TNV88-BLCR  
(B)=  
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129795-01960	PIPE, KNOCK	2							
2	1	129457-28000	BALANCER ASSY	1							
3	2	128170-14150	NUT	1							
4	2	121850-21290	PIN	1							
5	2	129457-28011	CASE ASSY, BALANCER	1							
8	2	129400-28150	GEAR, BALANCER	1							
9	2	729490-28510	SHAFT ASSY, BALANCER	1							
14	2	729490-28520	SHAFT ASSY, BALANCER	1							
19	2	23876-005000	PLUG, R005	1							
20	2	26106-080142	BOLT, M8X 14 PLATED	4							
21	1	24311-000140	O-RING, 1AP14.0	1							
22	1	26106-080602	BOLT, M8X 60 PLATED	4							
23	1	26106-080802	BOLT, M8X 80 PLATED	2							

# Fig.10. LUB.OIL SYSTEM



(A)=4TNV88-BLCR

(B)=

(C)=

(D)=

(E)=

(F)=

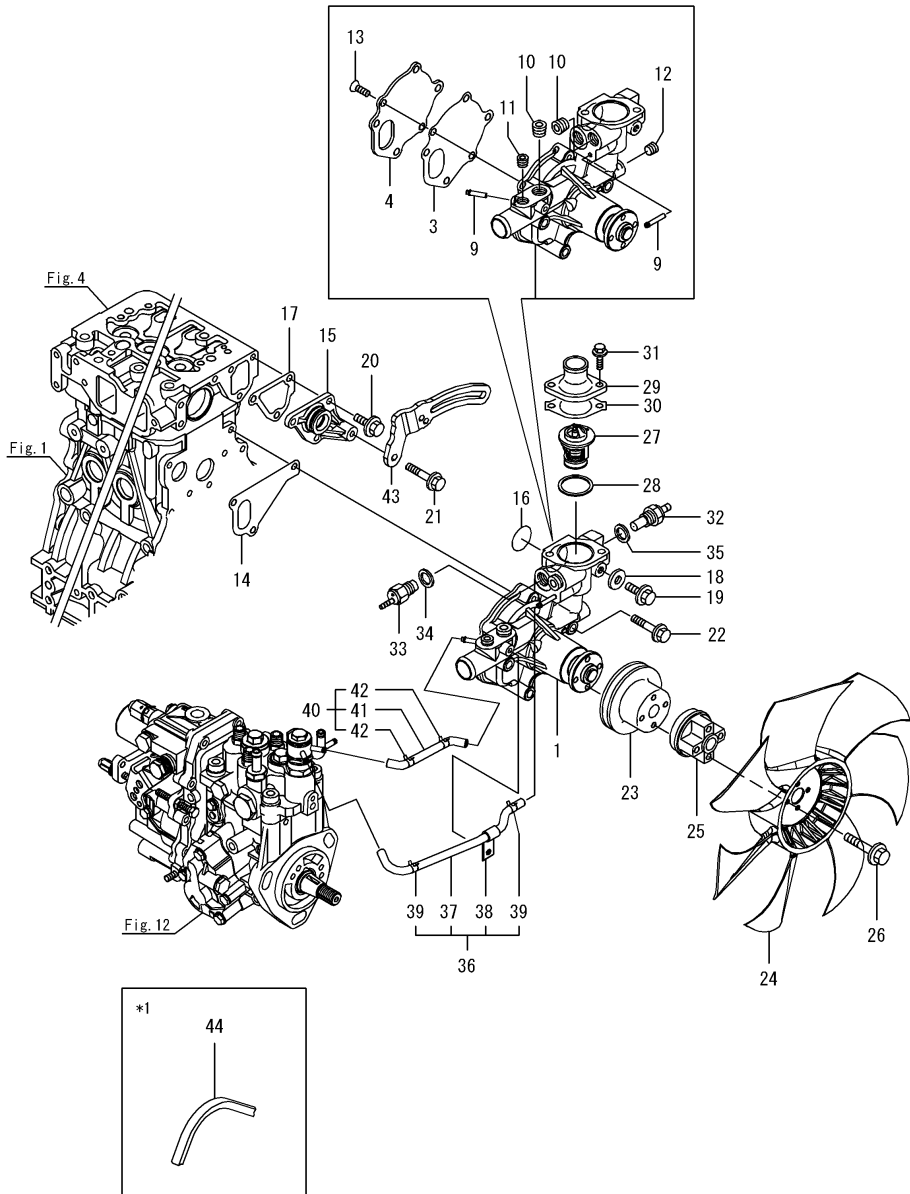
No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129407-32001	PUMP ASSY, OIL	1							
13	1	129150-32020	GASKET, PUMP	1							
14	1	26450-060252	BOLT, M6X 25	4							
15	1	129457-34800	DIPSTICK, OIL	1							
16	1	121520-34810	GUIDE, DIPSTICK	1							
17	1	129150-35042	GASKET	1							
18	1	129657-35090	PIPE ASSY, OIL INLET	1							
19	1	26106-080122	BOLT, M8X 12 PLATED	1							
20	1	26106-080352	BOLT, M8X 35 PLATED	2							
21	1	129960-03990	CLIP, HOSE 19.8	2							
22	1	129558-33010	COOLER ASSY, OIL	1							
23	2	129508-33050	O-RING	1							
24	1	123910-33100	BOLT	1							
25	1	129558-35000	BRACKET ASSY	1							
26	2	124160-01910	PLUG, PT1/4	1							
28	1	129150-35111	GASKET	1							
30	1	129122-44480	JOINT	1							
31	1	129558-49150	PIPE, WATER	1							
32	2	171008-03990	CLIP, HOSE 18.5	2							
33	2	129558-49160	PIPE, WATER	1							
34	1	129103-49301	ELBOW, PT1/4	1							
35	1	123910-49600	PIPE, WATER	1							
36	2	123910-49020	PIPE ASSY, WATER	1							
37	2	123910-49610	TUBE, CORRUGATED	1							
38	1	26106-080252	BOLT, M8X 25 PLATED	2							
39	1	26106-080452	BOLT, M8X 45 PLATED	1							
40	1	121252-39450	SWITCH, 0.5KG	1							
41	1	124160-39140	BOLT, PIPE JOINT M10	1							
42	1	119802-39450	PIPE ASSY, OIL	1							
43	1	129005-59830	BOLT ASSY, JOINT M8	1							
44	2	22190-080002	WASHER, SEAL 8	1							
45	2	23857-030000	BOLT, JOINT 3	1							
46	1	22190-080002	WASHER, SEAL 8	1							
47	1	22190-100002	WASHER, SEAL 10	2							
48	1	26366-060002	NUT, M6	1							
49	1	<del>110802-55801</del>	<del>FILTER, FUEL</del>	1							1

**129150-35153 FILTRO OLIO**

Remarks

(1) Spare part.

Fig.11. COOLING WATER SYSTEM



(A)=4TNV88-BLCR

(B)=

(C)=

(D)=

(E)=

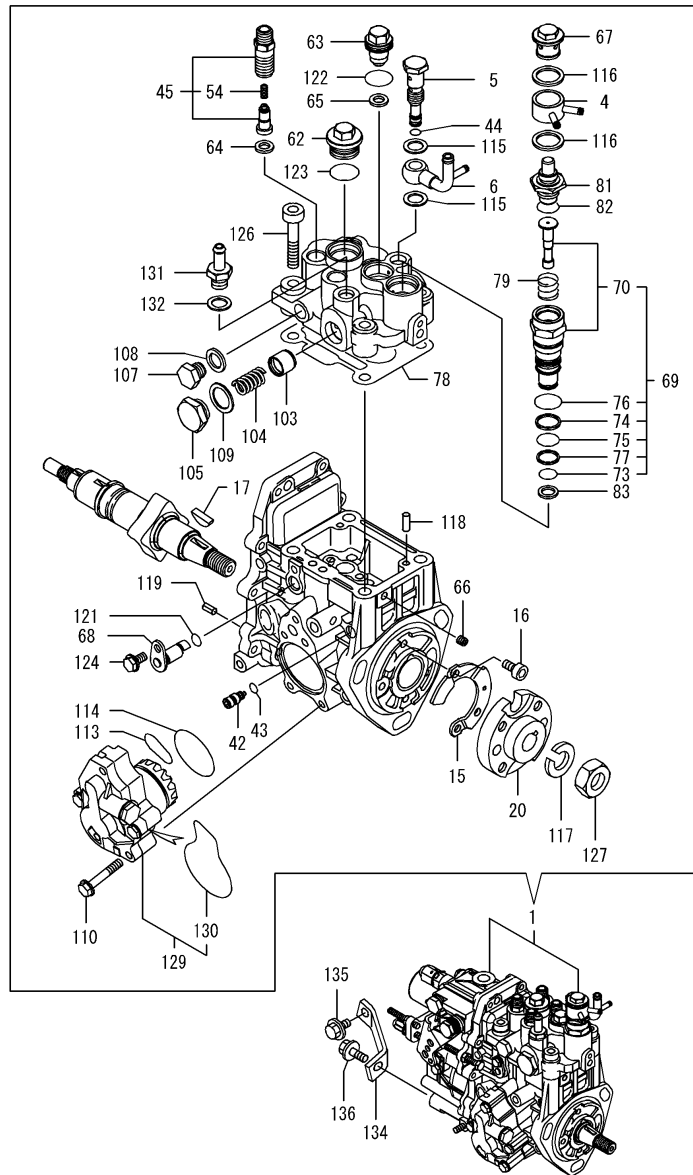
(F)=

No.	Lev.	Parts No.	Description	Q'ty						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	129403-42380	V-PULLEY, D=110	1							
24	1	129655-44740	FAN, COOLING D380	1							
25	1	129030-44760	SPACER, FAN L38.5	1							
26	1	26106-060502	BOLT, M6X 50 PLATED	4							
27	1	129457-49801	THERMOSTAT, 82	1							
28	1	129150-49811	GASKET, THERMOSTAT	1							
29	1	129350-49530	COVER, THERMOSTAT	1							
30	1	129795-49551	GASKET	1							
31	1	26106-080222	BOLT, M8X 22 PLATED	2							
32	1	121450-42450	PLUG, M16	1							
33	1	121250-44901	SWITCH, 110	1							
34	1	124465-44950	GASKET, 16	1							
35	1	124465-44950	GASKET, 16	1							
36	1	129004-49610	PIPE ASSY, WATER	1							
37	2	129004-49711	PIPE ASSY, WATER	1							
38	2	119802-49730	RETAINER, PIPE	1							
39	2	124722-59050	CLIP, HOSE 9	2							
40	1	129004-49620	PIPE ASSY, WATER	1							
41	2	129004-49721	PIPE ASSY, WATER	1							
42	2	124722-59050	CLIP, HOSE 9	2							
43	1	129064-77330	ADJUSTER	1							
44	1	129612-42320	V-BELT, A37	1							

Remarks

(1) Loose parts.

Fig.12. FUEL INJECTION PUMP



(A)=4TNV88-BLCR

(B)=

(C)=

(D)=

(E)=

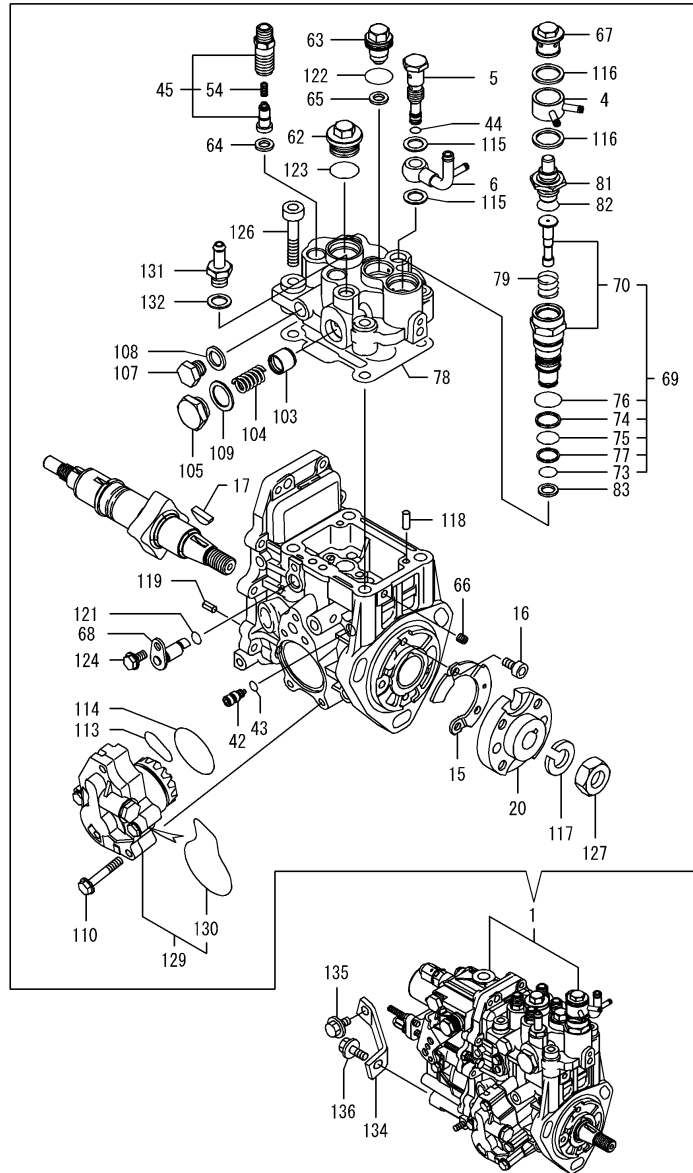
(F)=

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	729657-51330	FIE ASSY	1							
4	2	158553-51551	JOINT	1							
5	2	158601-51650	JOINT, OVER FLOW	1							
6	2	158552-51670	JOINT, OVER FLOW	1							
15	2	129008-51900	COVER, GEAR CASE	1							
16	2	129008-51920	BOLT, M6X10	2							
17	2	119802-51090	KEY, 4X16	1							
20	2	158552-51151	FLANGE	1							
42	2	158600-51270	STOPPER, TAPPET	1							
43	2	158563-51281	O-RING, 4D S6	1							
44	2	158563-51281	O-RING, 4D S6	1							
45	2	129008-51390	VALVE ASSY, DELIVERY	4							
54	2	158563-51330	SPRING, DELIVERY	4							
62	2	158601-51550	PLUG	1							
63	2	119802-51560	PLUG, BARREL	1							
64	2	158552-51571	GASKET	4							
65	2	158552-51571	GASKET	1							
66	2	158557-51570	PLUG	1							
67	2	158601-51570	PLUG	1							
68	2	158552-51580	LIFTER	1							
69	2	119802-51590	TIMER SET	1							
70	3	119802-51600	TIMER ASSY	1							
73	3	158553-51670	O-RING, 1011	1							
74	3	119802-51680	RING, BACK UP	1							
75	3	119802-51690	O-RING	1							
76	3	24356-190200	O-RING, 4D19020	1							
77	3	24372-000150	RING, BACK UP T2P15	1							
78	2	158552-51600	GASKET	1							
79	2	158553-51630	SPRING, TIMER	1							
81	2	158553-51650	ELEMENT	1							
82	2	158553-51660	O-RING, P14	1							
83	2	158553-51680	GASKET	1							
103	2	158601-51770	PISTON	1							
104	2	158552-51781	SPRING	1							
105	2	158601-51790	PLUG	1							
107	2	158553-51930	PLUG, M12	1							
108	2	22190-120002	WASHER, SEAL 12	1							
109	2	22190-180002	WASHER, SEAL 18	1							
110	2	158553-51770	BOLT	4							
113	2	158552-52311	O-RING	1							
114	2	158552-52400	O-RING, 4E S42	1							
115	2	22190-120002	WASHER, SEAL 12	2							
116	2	22190-180002	WASHER, SEAL 18	2							
117	2	22217-140000	WASHER, SPRING 14	1							
118	2	22312-050140	PIN, PARALLEL 5X14	2							
119	2	22351-050010	PIN, SPRING 5.0X10	2							
121	2	24311-000070	O-RING, 1AP7.0	1							
122	2	24356-190180	O-RING, 4D19018	1							
123	2	24356-190200	O-RING, 4D19020	1							
124	2	26106-060102	BOLT, M6X 10 PLATED	1							
126	2	26450-080452	BOLT, M8X 45	4							

Remarks

(1)Governor(Fig.13)is incorporated in this Fuel Injection Pump (Ref.1).

Fig.12. FUEL INJECTION PUMP



(A)=4TNV88-BLCR

(B)=

(C)=

(D)=

(E)=

(F)=

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
127	2	26776-140002	NUT, LOCK M14	1							
129	2	158552-52100	PUMP ASSY, FUEL FEED	1							
130	3	158552-52500	O-RING	1							
131	2	119934-59910	JOINT, PIPE	1							
132	1	22190-120002	WASHER, SEAL 12	1							
134	1	129601-51250	RETAINER, PUMP	1							
135	1	26106-080162	BOLT, M8X 16 PLATED	1							
136	1	26106-080202	BOLT, M8X 20 PLATED	1							

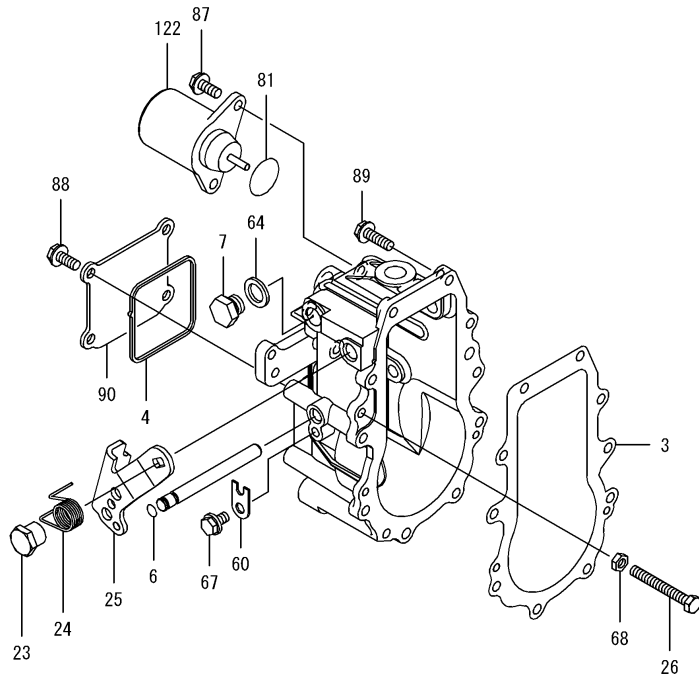
Remarks

(1)Governor(Fig.13)is incorporated in this Fuel Injection Pump (Ref.1).

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



# Fig.13. GOVERNOR



(A)=4TNV88-BLCR

(B)=

(C)=

(D)=

(E)=

(F)=

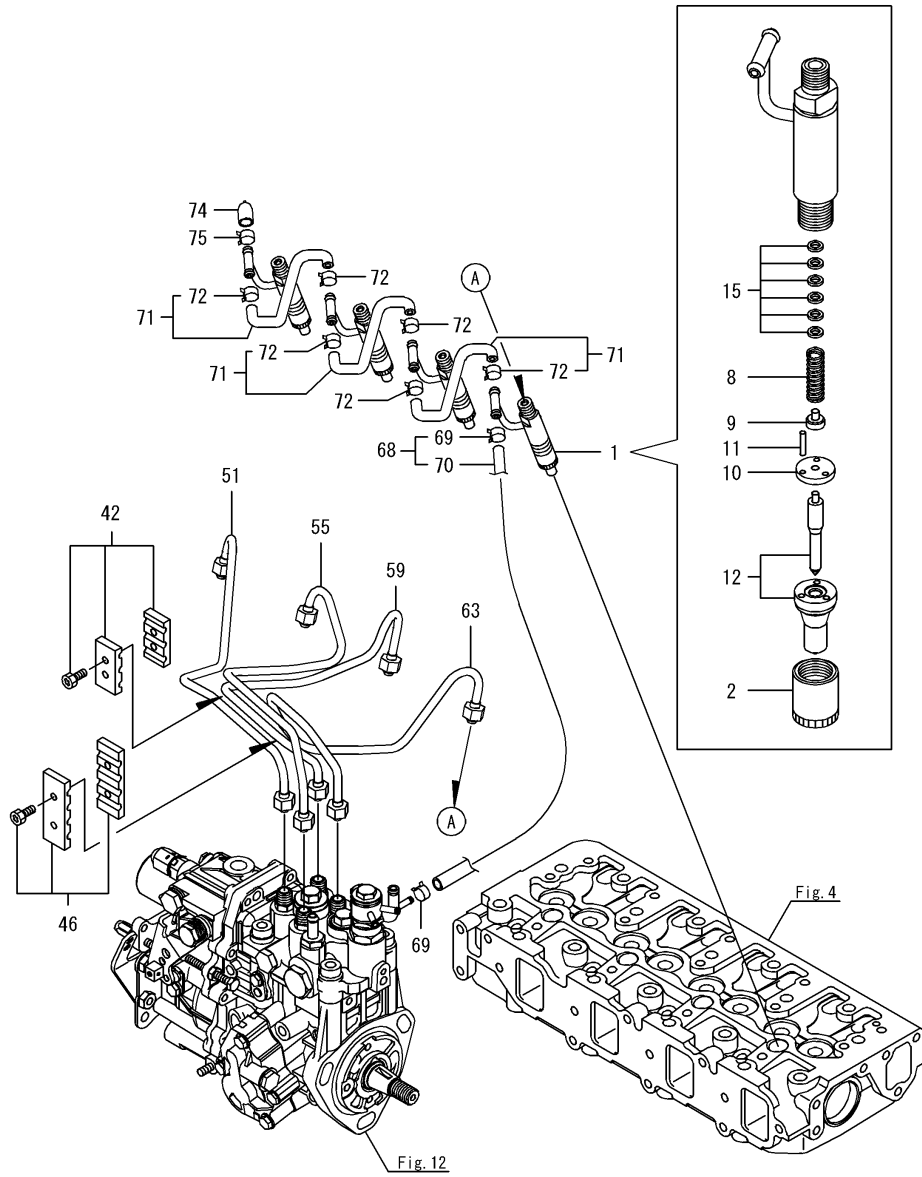
No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
3	2	158553-61050	GASKET	1							
4	2	158553-61070	GASKET	1							
6	3	129155-51280	O-RING, S6	1							
7	3	158553-51930	PLUG, M12	1							
23	3	129255-61410	NUT, LOCK	1							
24	3	119807-61420	SPRING, RETURN	1							
25	3	158552-61441	LEVER, REGULATOR	1							
26	3	129155-61460	BOLT, IDLE	1							
60	3	119660-61901	RETAINER, SHAFT	1							
64	3	22190-120002	WASHER, SEAL 12	1							
67	3	26106-060102	BOLT, M6X 10 PLATED	1							
68	3	26756-060002	NUT, LOCK M6	1							
81	2	158552-61900	O-RING	1							
87	2	26106-060142	BOLT, M6X 14 PLATED	2							
88	2	26106-060142	BOLT, M6X 14 PLATED	4							
89	2	26106-060202	BOLT, M6X 20 PLATED	10							
90	1	129642-61060	COVER, GOVERNOR CASE	1							
122	1	119233-77932	SOLENOID, STOP	1							

Remarks

\*This figure(Governor)is incorporated in the Fuel Injection Pump (Fig.12).

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

Fig.14. FUEL INJECTION VALVE



(A)=4TNV88-BLCR

(B)=

(C)=

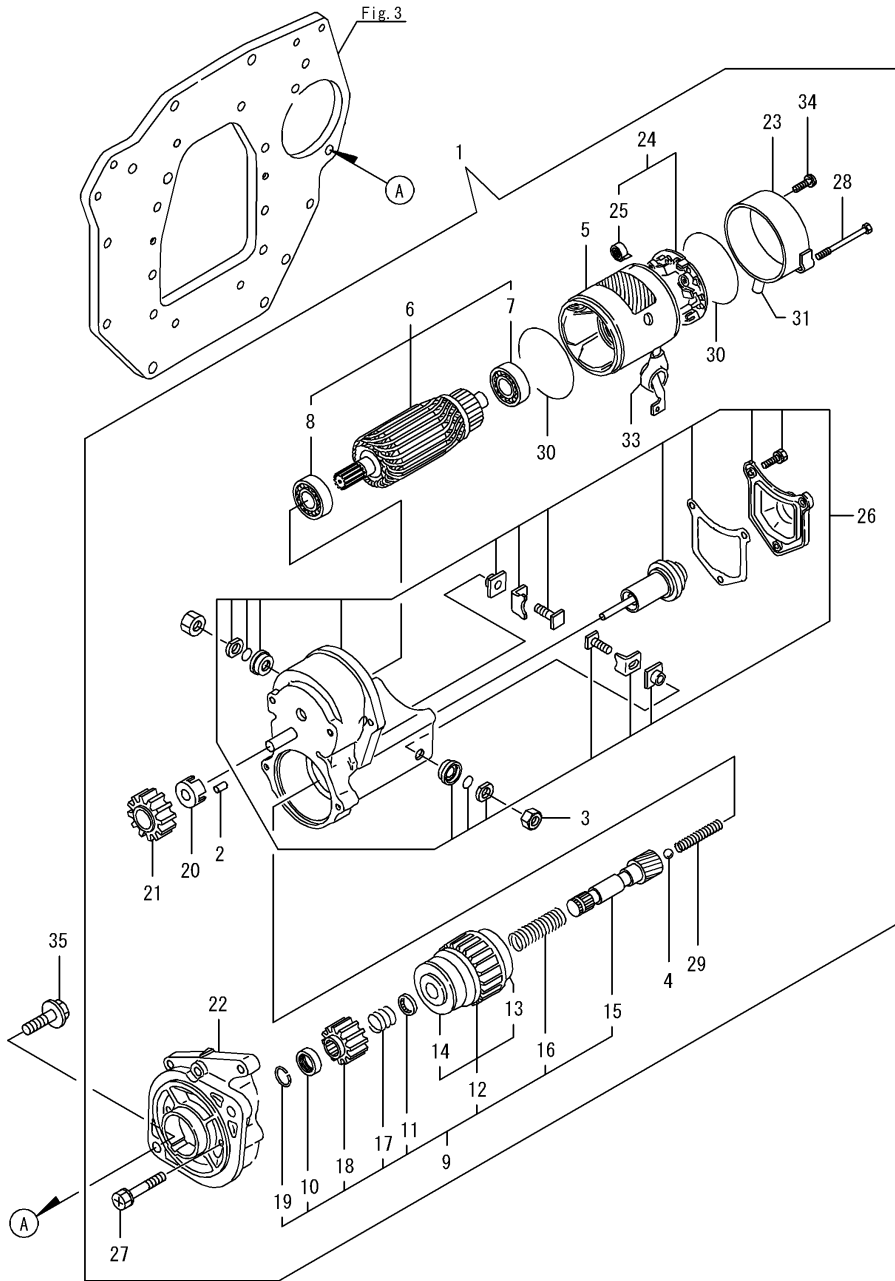
(D)=

(E)=

(F)=

No.	Lev.	Parts No.	Description	Qty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	729604-53400	VALVE ASSY,INJECTION	4							
2	2	114250-53080	NUT, NOZZLE D16.95	4							
8	2	114250-53120	SPRING, NOZZLE	4							
9	2	114250-53130	SEAT, SPRING	4							
10	2	114250-53140	PLATE	4							
11	2	114250-53210	PIN	8							
12	2	129604-53300	VALVE ASSY,INJECTION	4							
15	2	119803-53400	SHIM SET	4							
42	1	129150-59120	RETAINER, PIPE	1							
46	1	129550-59120	RETAINER, PIPE	1							
51	2	129601-59810	PIPE ASSY, INJECTION	1							
55	1	129601-59820	PIPE ASSY, INJECTION	1							
59	1	129601-59830	PIPE ASSY, INJECTION	1							
63	1	129601-59840	PIPE ASSY, INJECTION	1							
68	1	119802-59550	PIPE ASSY, RETURN	1							
69	2	124722-59050	CLIP, HOSE 9	2							
70	2	119802-59560	PIPE, FUEL RETURN	1							
71	1	129486-59551	PIPE ASSY, RETURN	3							
72	2	124722-59050	CLIP, HOSE 9	6							
74	1	119593-59581	CAP	1							
75	1	124060-77680	CLIP, HOSE 10	1							

Fig.15. STARTING MOTOR



(A)=4TNV88-BLCR

(B)=

(C)=

(D)=

(E)=

(F)=

No.	Lev.	Parts No.	Description	Qty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129407-77010	STARTER, RA1.4	1							
2	2	X0283060061	ROLLER	5							
3	2	X9490561370	NUT	1							
4	2	X9491200240	BALL	1							
5	2	129407-77210	YOKE ASSY	1							
6	2	129407-77220	ARMATURE ASSY	1							
7	3	129129-77230	BEARING, BALL	1							
8	3	129129-77240	BEARING, BALL	1							
9	2	129407-77250	STARTER	1							
10	3	X0280210230	NUT	1							
11	3	X0283270140	RETAINER	1							
12	3	129407-77390	CLUTCH ASSY	1							
13	4	129129-77440	BEARING, BALL	1							
14	4	129129-77450	BEARING, BALL	1							
15	3	129129-77400	SHAFT	1							
16	3	129129-77410	SPRING, COIL	1							
17	3	129407-77410	SPRING	1							
18	3	129129-77420	PINION, STARTER	1							
19	3	129129-77430	RING	1							
20	2	129129-77260	RETAINER	1							
21	2	129129-77270	PINION	1							
22	2	129407-77280	HOUSING	1							
23	2	129129-77290	FRAME	1							
24	2	129407-77300	HOLDER ASSY	1							
25	3	X9491730461	SPRING	4							
26	2	129407-77310	SWITCH ASSY	1							
27	2	129129-77320	BOLT	2							
28	2	129407-77330	BOLT	2							
29	2	129129-77340	SPRING	1							
30	2	129129-77350	O-RING	2							
31	2	129129-77362	COVER	1							
33	2	129129-77380	CAP	1							
34	2	129129-77460	SCREW	2							
35	1	26106-120252	BOLT, M12X 25 PLATED	2							

Fig.16. ACCESSORY

(A)=4TNV88-BLCR

(B)=

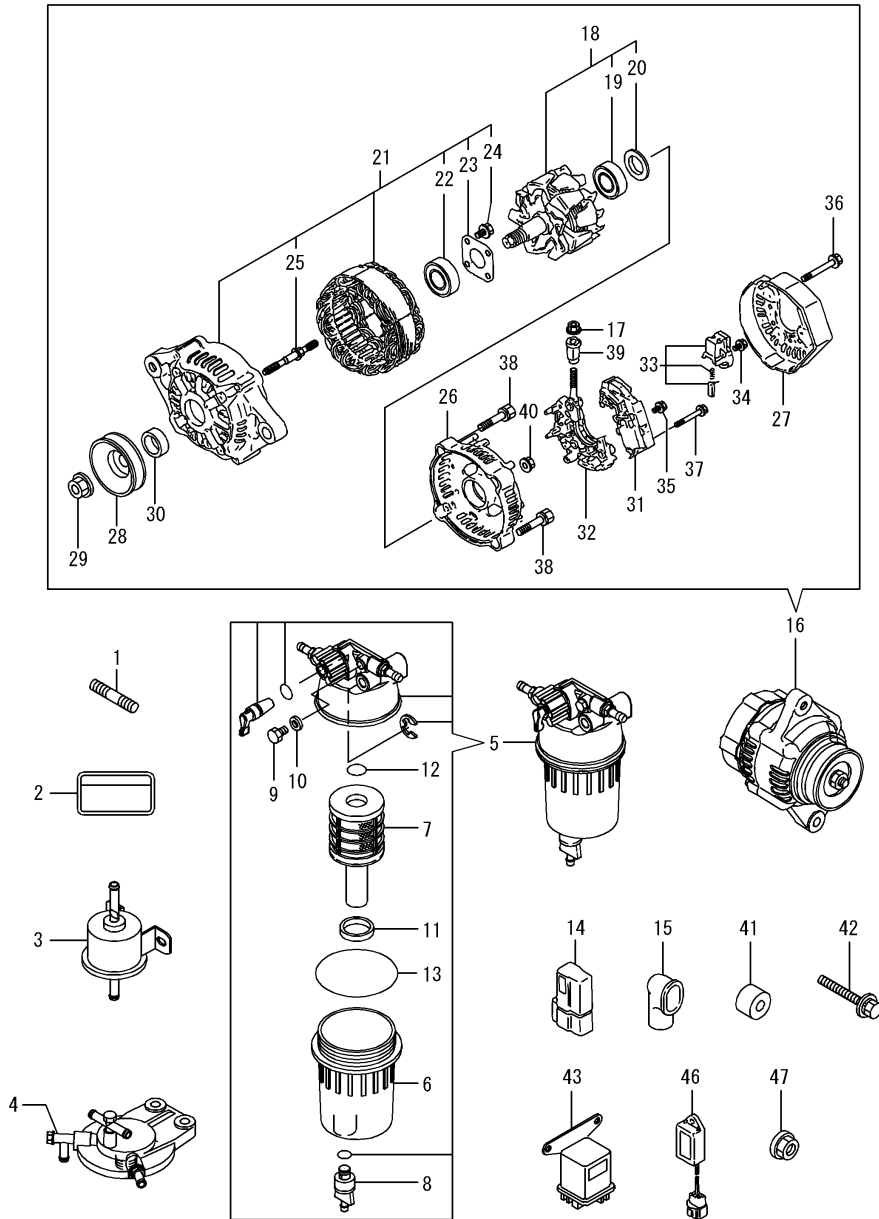
(C)=

(D)=

(E)=

(F)=

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129795-01900	STUD	1							
2	1	114110-07761	LABEL, FUEL OIL CAUT	1							
3	1	119225-52102	PUMP ASSY, FUEL FEED	1							
4	1	129004-55612	BRACKET, FILTER	1							
5	1	129242-55701	SEPARATOR ASSY	1							
6	2	129242-55720	CUP	1							
7	2	129242-55730	ELEMENT	1							
8	2	129242-55740	PLUG, DRAIN	1							
9	2	129242-55750	VALVE, AIR VENT	1							
10	2	129242-55760	GASKET	1							
11	2	129242-55770	FLOAT	1							
12	2	24311-000160	O-RING, 1AP16.0	1							
13	2	24321-000750	O-RING, 1AG75.0	1							
14	1	119643-66900	DIODE	1							
15	1	124550-77030	COVER, TERMINAL	1							
16	1	119626-77210	ALTERNATOR, 12V-55A	1							
17	2	X9490561001	NUT	1							
18	2	129052-77380	ROTOR ASSY	1							
19	3	123501-79240	BEARING, BALL	1							
20	3	119620-79250	COVER	1							
21	2	129052-77422	FRAME ASSY	1							
22	3	119620-79200	BEARING, BALL	1							
23	3	119620-79210	PLATE, RETAINER	1							
24	3	119620-79220	SCREW	4							
25	3	119620-79230	STUD	2							
26	2	128401-77440	FRAME	1							
27	2	119626-77450	COVER	1							
28	2	119620-77461	PULLEY	1							
29	2	119620-77471	NUT	1							
30	2	119620-77490	COLLAR	1							
31	2	129423-77710	REGULATOR ASSY	1							
32	2	129052-79260	HOLDER	1							
33	2	129052-79270	HOLDER, BRUSH	1							
34	2	119620-79290	SCREW	6							
35	2	119620-79300	SCREW	1							
36	2	119620-79310	BOLT	3							
37	2	119620-79320	SCREW	2							
38	2	119620-79330	BOLT	2							
39	2	119620-79340	BUSH, INSULATION	1							
40	2	119620-79350	NUT	2							
41	1	129067-77340	SPACER	1							
42	1	129972-77341	BOLT, ADJUSTER L=50	1							
43	1	119650-77911	RELAY ASSY, GLOW	1							
46	1	129211-77920	TIMER	1							
47	1	26306-100002	NUT, M10	1							



## Parts No. Index

Parts No.	Fig. No.	Ref. No.
105425-01690	3	6
114110-07761	16	2
114250-53080	14	2
114250-53120	14	8
114250-53130	14	9
114250-53140	14	10
114250-53210	14	11
119131-18320	6	5
119225-52102	16	3
119233-77932	13	122
119309-01810	1	14
119593-59581	14	74
119609-32040	2	14
119620-77461	16	28
119620-77471	16	29
119620-77490	16	30
119620-79200	16	22
119620-79210	16	23
119620-79220	16	24
119620-79230	16	25
119620-79250	16	20
119620-79290	16	34
119620-79300	16	35
119620-79310	16	36
119620-79320	16	37
119620-79330	16	38
119620-79340	16	39
119620-79350	16	40
119625-11880	4	30
119626-77210	16	16
119626-77450	16	27
119643-66900	16	14
119650-77911	16	43
119660-61901	13	60
119802-01561	2	10
119802-03110	4	41
119802-03121	4	42
119802-03130	4	43
119802-03141	4	44
119802-11260	4	5
119802-11270	4	6
119802-11870	4	29
119802-25071	7	14
119802-25101	7	11
119802-25901	7	17
119802-39450	10	42
119802-49113	11	9
119802-49730	11	38
119802-51090	12	17
119802-51560	12	63

Parts No.	Fig. No.	Ref. No.
119802-51590	12	69
119802-51600	12	70
119802-51680	12	74
119802-51690	12	75
119802-55801	10	49
119802-59550	14	68
119802-59560	14	70
119803-21200	8	5
119803-25050	7	10
119803-53400	14	15
119803-77830	4	55
119807-61420	13	24
119852-21650	8	11
119865-21600	8	18
119934-01800	2	8
119934-59910	12	131
119953-21580	8	15
120130-11860	4	61
120270-54410	4	32
121023-01551	2	27
121023-26071	7	18
121250-44901	11	33
121252-39450	10	40
121400-11340	4	25
121450-42450	11	32
121520-34810	10	16
121550-23200	8	33
121850-21290	8	6
	9	4
121850-21680	8	13
121850-51960	2	15
123501-79240	16	19
123900-13610	6	3
123900-13630	6	4
123910-33100	10	24
123910-49020	10	36
123910-49600	10	35
123910-49610	10	37
124060-77680	14	75
124160-01751	2	11
	4	37
124160-01910	10	26
124160-11360	4	50
124160-21501	8	14
124160-39140	10	41
124240-01871	2	12
		24
124395-49840	11	17
124460-11340	4	26
124465-44950	11	34

Parts No.	Fig. No.	Ref. No.
124465-44950	11	35
124550-77030	16	15
124722-59050	11	39
		42
	14	69
		72
128170-14150	9	3
128401-77440	16	26
129001-01250	1	5
129001-02931	1	27
129004-03010	4	39
129004-11650	4	8
129004-11900	4	31
129004-42001	11	1
129004-42040	11	15
129004-49610	11	36
129004-49620	11	40
129004-49711	11	37
129004-49721	11	41
129004-55612	16	4
129005-03080	5	1
129005-11100	4	21
129005-22080	8	19
129005-22500	8	21
129005-22900	8	39
129005-22950	8	41
129005-59830	10	43
129008-51390	12	45
129008-51900	12	15
129008-51920	12	16
129008-77800	4	53
129030-44760	11	25
129052-77380	16	18
129052-77422	16	21
129052-79260	16	32
129052-79270	16	33
129064-77330	11	43
129067-77340	16	41
129100-01580	3	1
		13
	8	2
129100-01640	3	14
129100-11112	4	22
129100-23910	8	36
129100-42051	11	3
129100-42121	11	4
129103-49301	10	34
129122-44480	10	30
129129-01600	3	2
129129-77230	15	7

Parts No.	Fig. No.	Ref. No.
129129-77240	15	8
129129-77260	15	20
129129-77270	15	21
129129-77290	15	23
129129-77320	15	27
129129-77340	15	29
129129-77350	15	30
129129-77362	15	31
129129-77380	15	33
129129-77400	15	15
129129-77410	15	16
129129-77420	15	18
129129-77430	15	19
129129-77440	15	13
129129-77450	15	14
129129-77460	15	34
129150-01200	1	12
129150-02020	1	7
129150-02450	7	4
129150-02871	1	30
129150-02931	1	24
129150-02941	1	33
129150-03070	4	40
129150-11230	4	9
129150-11280	4	7
129150-11370	4	13
129150-11750	4	11
129150-11810	4	62
129150-14101	7	7
129150-14200	7	1
129150-14400	7	2
129150-23601	8	34
129150-23611	8	37
129150-25301	7	16
129150-32020	10	13
129150-35042	10	17
129150-35111	10	28
129150-49811	11	28
129150-59120	14	42
129150-77511	5	8
129155-51280	13	6
129155-61460	13	26
129202-22300	8	27
129211-77920	16	46
129242-55701	16	5
129242-55720	16	6
129242-55730	16	7
129242-55740	16	8
129242-55750	16	9
129242-55760	16	10

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Parts No.	Fig. No.	Ref. No.
129242-55770	16	11
129255-61410	13	23
129350-49530	11	29
129400-13101	6	1
129400-28121	8	7
129400-28150	9	8
129403-42380	11	23
129407-01340	1	13
129407-12110	5	5
129407-32001	10	1
129407-77010	15	1
129407-77210	15	5
129407-77220	15	6
129407-77250	15	9
129407-77280	15	22
129407-77300	15	24
129407-77310	15	26
129407-77330	15	28
129407-77390	15	12
129407-77410	15	17
129410-03990	5	2
129423-77710	16	31
129457-28000	9	2
129457-28011	9	5
129457-34800	10	15
129457-49801	11	27
129484-26200	7	20
129484-26210	7	22
129486-01670	3	17
129486-42021	11	14
129486-42140	11	16
129486-59551	14	71
129508-33050	10	23
129550-01702	3	4
129550-13110	6	2
129550-59120	14	46
129555-01750	3	9
129558-33010	10	22
129558-35000	10	25
129558-49150	10	31
129558-49160	10	33
129601-11241	4	3
129601-11251	4	4
129601-11310	4	47
129601-11350	4	38
129601-51250	12	134
129601-59810	14	51
129601-59820	14	55
129601-59830	14	59
129601-59840	14	63

Parts No.	Fig. No.	Ref. No.
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129604-53300	14	12
129604-77821	4	54
129612-42320	11	44
129642-61060	13	90
129652-21010	8	1
129655-44740	11	24
129657-01730	3	5
129657-35090	10	18
129795-01780	3	16
129795-01900	16	1
129795-01950	2	13
129795-01960	9	1
129795-02412	1	10
129795-11120	4	23
129795-11180	4	24
129795-21661	8	12
129795-49551	11	30
129900-07900	4	1
129916-49740	11	10
129930-13201	6	7
129960-03990	10	21
129972-77341	16	42
129C26-01890	2	25
158552-51151	12	20
158552-51571	12	64
		65
158552-51580	12	68
158552-51600	12	78
158552-51670	12	6
158552-51781	12	104
158552-52100	12	129
158552-52311	12	113
158552-52400	12	114
158552-52500	12	130
158552-61441	13	25
158552-61900	13	81
158553-51551	12	4
158553-51630	12	79
158553-51650	12	81
158553-51660	12	82
158553-51670	12	73
158553-51680	12	83
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158601-51650	12	5
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171008-03990	10	32
171051-01921	1	6
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22312-050140	12	118
22351-050010	12	119
22351-060012	4	33
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23876-005000	9	19
23876-010000	11	12
24105-060064	7	25
24311-000070	12	121
24311-000120	4	51
24311-000140	9	21
24311-000160	16	12
24311-000320	2	17
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24321-000750	16	13
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26106-060142	13	87
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26106-060502	11	26
26106-080122	10	19
	11	19
26106-080142	7	9
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26106-080202	5	6
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	5	10
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26106-080302	2	20
26106-080352	4	35
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26106-080452	10	39
	11	21
26106-080502	4	36
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26106-080602	9	22
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26756-060002	13	68
26776-140002	12	127
27241-300000	1	11
27241-400000	4	20
27310-080001	4	27
729402-14580	7	3
729402-23100	8	29
729490-28510	9	9
729490-28520	9	14
729604-53400	14	1
729652-01500	2	1
729657-51330	12	1
729659-01570	1	1
X0280210230	15	10
X0283060061	15	2
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