

0CD10-M91000EN

# PREFACE

1. This parts catalog is the 1st edition of 4TNV88-QIK for KATO WORKS CO.,LTD.

Pub.No. : 000Y00D9100

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2. Model name

Engine model	Vehicle		Vehicle made by
	Products	Model name	
4TNV88-QIK	Excavator	45VX / 50VX	KATO WORKS CO.,LTD.

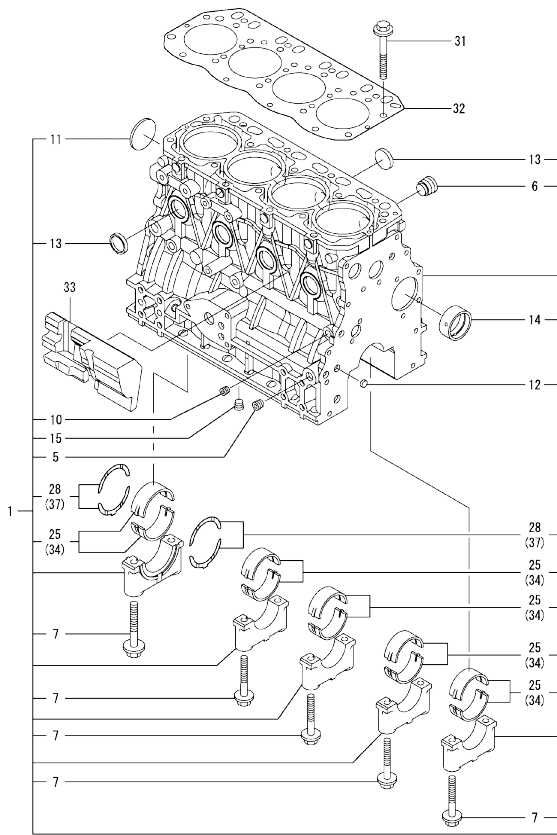
## Contents

0CD10-M91000

Fig. No.	Fig. Name	Fig. No.	Fig. Name
ENGINE 4TNV88-QIK			
1.	CYLINDER BLOCK		
2.	GEAR HOUSING		
3.	FLYWHEEL HOUSING & OIL SUMP		
4.	CYLINDER HEAD & BONNET		
5.	SUCTION MANIFOLD & AIR CLENER		
6.	EXHAUST MANIFOLD & SILENCER		
7.	CAMSHAFT & DRIVING GEAR		
8.	CRANKSHAFT & PISTON		
9.	LUB.OIL SYSTEM		
10.	COOLING WATER SYSTEM		
11.	FUEL INJECTION PUMP		
12.	GOVERNOR		
13.	FUEL INJECTION VALVE		
14.	FUEL LINE		
15.	STARTING MOTOR		
16.	GENERATOR		
17.	GASKET SET		

OCD10-M91000 ENGINE 4TNV88-QIK  
 Fig.1. CYLINDER BLOCK

OCD10-M91000 Fig.1



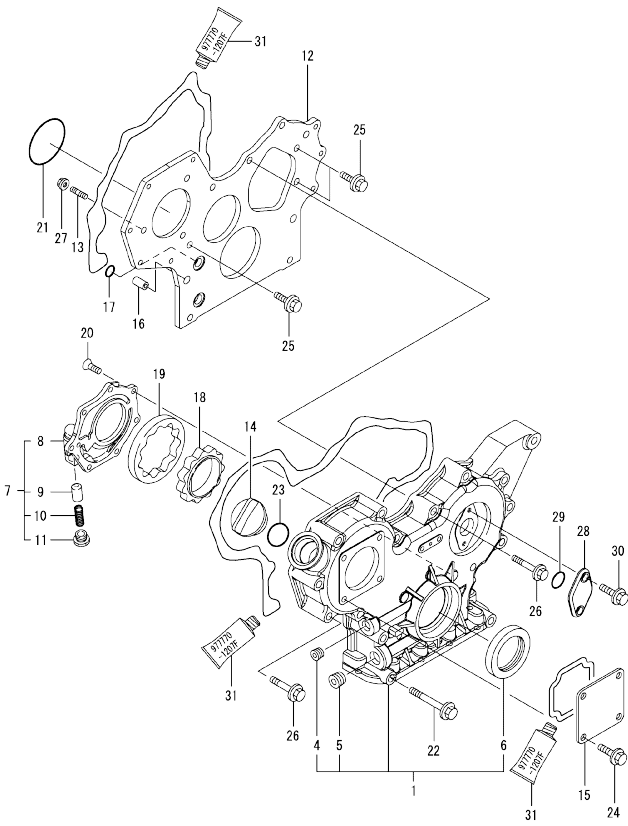
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 (B)=  
 (C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	729602-01560	BLOCK ASSY, CYLINDER	1							
5	2	124160-01910	PLUG, PT1/4	2							
6	2	171051-01921	PLUG, NPTF1	1							
7	2	129150-02020	BOLT, METAL CAP	10							
10	2	124060-01050	PLUG, PT1/8	1							
11	2	129001-01250	PLUG, 50	1							
12	2	27241-120000	PLUG, 12	2							
13	2	27241-300000	PLUG 30	8							
14	2	129795-02412	BUSH, CAMSHAFT	1							
15	2	124160-01910	PLUG, PT1/4	1							
25	2	129001-02931	BEARING, MAIN	5							3
28	2	129150-02931	BEARING, THRUST	2							
31	1	129150-01200	BOLT, HEAD	18							
32	1	129407-01340	GASKET, HEAD	1							
33	1	129004-01190	SPACER	1							
34	1	129150-02871	BEARING, 0.25 US	5							1
37	1	129150-02941	BEARING, THRUST 0.25	1							2

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

Fig.2. GEAR HOUSING



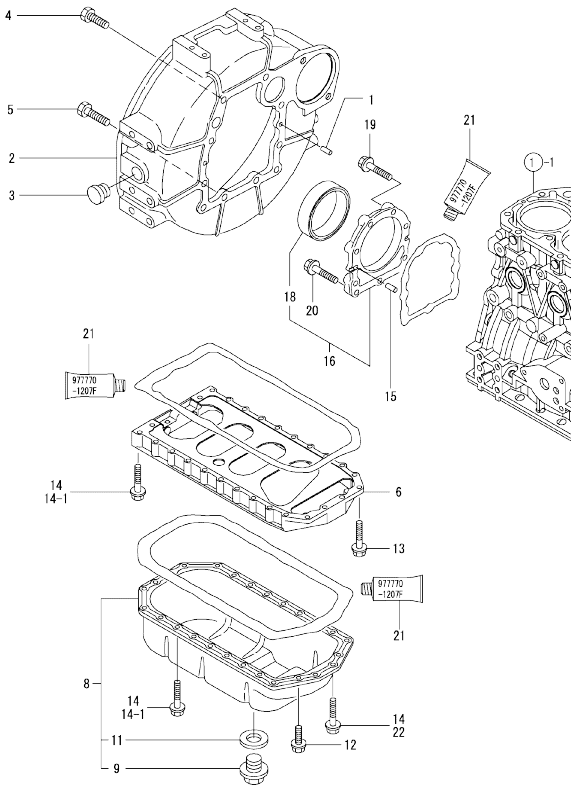
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(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	719802-01500	CASE ASSY, GEAR	1							
4	2	23876-030000	PLUG, R03	1							
5	2	23876-040000	PLUG, R04	1							
6	2	129795-01800	SEAL, OIL	1							
7	1	119802-32100	COVER ASSY	1							
8	2	119802-32070	COVER	1							
9	2	129900-32130	VALVE, RELIEF	1							
10	2	129418-32320	SPRING	1							
11	2	129001-32330	PLUG	1							
12	1	119802-01520	FLANGE, GEAR CASE	1							
13	1	119802-01561	STUD, M8X25	3							
14	1	124160-01751	COVER, FILLER	1							
15	1	124240-01871	COVER	1							
16	1	129795-01950	PIPE, KNOCK L=18	2							
17	1	119609-32040	O-RING, P16	4							
18	1	119802-32111	ROTOR, INNER	1							
19	1	119802-32120	ROTOR, OUTER	1							
20	1	119802-32130	SCREW, M6X16	7							
21	1	121850-51960	O-RING	1							
22	1	129001-91841	BOLT, M8X85	3							
23	1	24311-000320	O-RING, 1AP32.0	1							
24	1	26106-080162	BOLT, M8X 16 PLATED	4							
25	1	26106-080162	BOLT, M8X 16 PLATED	3							
26	1	26106-080552	BOLT, M8X 55 PLATED	12							
27	1	26306-080002	NUT, M8	3							
28	1	121023-01551	COVER	1							
29	1	24341-000240	O-RING, 1AS24.0	1							
30	1	26106-060162	BOLT, M6X 16 PLATED	2							
31	1	977770-1207F	GASKET,LIQUID	1							1

Remarks  
(1) OPTIONAL PART.

Fig.3. FLYWHEEL HOUSING & OIL SUMP



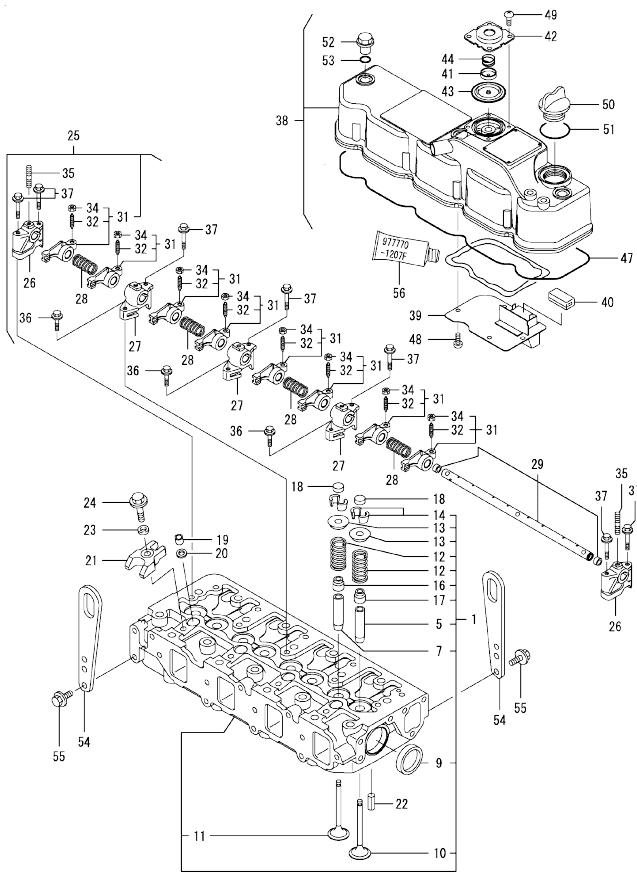
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(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129100-01580	PIN, M8X16	2							
2	1	129612-01600	HOUSING, FLYWHEEL	1							
3	1	119620-01750	CAP	1							
4	1	26206-100252	BOLT, M10X 25 PLATED	6							
5	1	26206-100302	BOLT, M10X 30 PLATED	4							
6	1	129400-01730	SPACER, OIL SUMP	1							
8	1	129436-01780	SUMP ASSY, OIL	1							
9	2	119640-01640	PLUG, DRAIN M22	1							
11	2	22190-220002	WASHER, SEAL 22	1							
12	1	26106-080162	BOLT, M8X 16 PLATED	4							
13	1	26106-080252	BOLT, M8X 25 PLATED	2							
14	1	26106-080452	BOLT, M8X 45 PLATED	24							
14-1	1	26106-080452	BOLT, M8X 45 PLATED	20							K
(A=FROM 1ST)											
15	1	129100-01580	PIN, M8X16	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							
21	1	977770-1207F	GASKET, LIQUID	1							1
22	1	26106-080502	BOLT, M8X 50 PLATED	4							W
(A=FROM 1ST)											

Remarks  
(1) OPTIONAL PART.

Fig.4. CYLINDER HEAD & BONNET



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

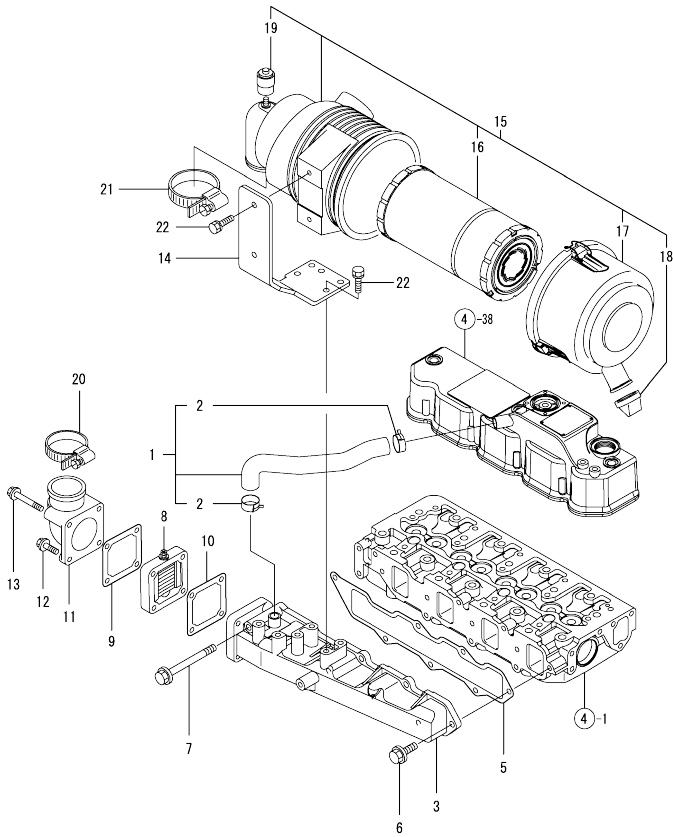
(D)=  
(E)=  
(F)=

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129601-11700	HEAD ASSY, CYLINDER	1							
5	2	120130-11860	GUIDE, VALVE	4							1
7	2	129150-11810	GUIDE, VALVE	4							1
9	2	27241-400000	PLUG, 40	2							
10	2	129004-11130	VALVE, INTAKE	4							
11	2	129100-11112	VALVE, EXHAUST	4							
12	2	129795-11120	SPRING, VALVE	8							
13	2	129795-11180	RETAINER, SPRING	8							
14	2	27310-080001	COTTER, 8	8							
16	2	121400-11340	SEAL, VALVE STEM	4							
17	2	124460-11340	SEAL, VALVE STEM	4							
18	1	129150-11370	CAP, VALVE	8							
19	1	119802-11870	PROTECTOR, NOZZLE	4							
20	1	119625-11880	SEAT, NOZZLE	4							
21	1	129004-11900	RETAINER, NOZZLE	4							
22	1	22351-060012	PIN, SPRING 6.0X12	2							
23	1	120270-54410	WASHER, INJECTOR	4							
24	1	26106-080352	BOLT, M8X 35 PLATED	4							
25	1	129601-11241	SHAFT ASSY, ROCKER	1							
26	2	119802-11260	SUPPORT, ROCKER ARM	2							
27	2	119802-11270	SUPPORT, ROCKER ARM	3							
28	2	129150-11280	SPRING	4							
29	2	129601-11251	SHAFT, ROCKER ARM	1							
31	2	129004-11650	ARM, ROCKER	8							
32	3	129150-11230	SCREW, VALVE ADJUST	8							
34	3	129150-11750	NUT, M8	8							
35	2	26226-080182	STUD, M8X 18	3							
36	1	26106-080252	BOLT, M8X 25 PLATED	3							
37	1	26106-080502	BOLT, M8X 50 PLATED	7							
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	4							
49	2	22857-500100	SCREW, 5X10	4							
50	1	124160-01751	COVER, FILLER	1							
51	1	24311-000320	O-RING, 1AP32.0	1							
52	1	124160-11360	KNOB	3							
53	1	24311-000120	O-RING, 1AP12.0	3							
54	1	129800-07900	LIFTER	2							
55	1	26106-080162	BOLT, M8X 16 PLATED	4							
56	1	977770-1207F	GASKET, LIQUID	1							2

Remarks

- (1) REPAIR PARTS.
- (2) OPTIONAL PART.

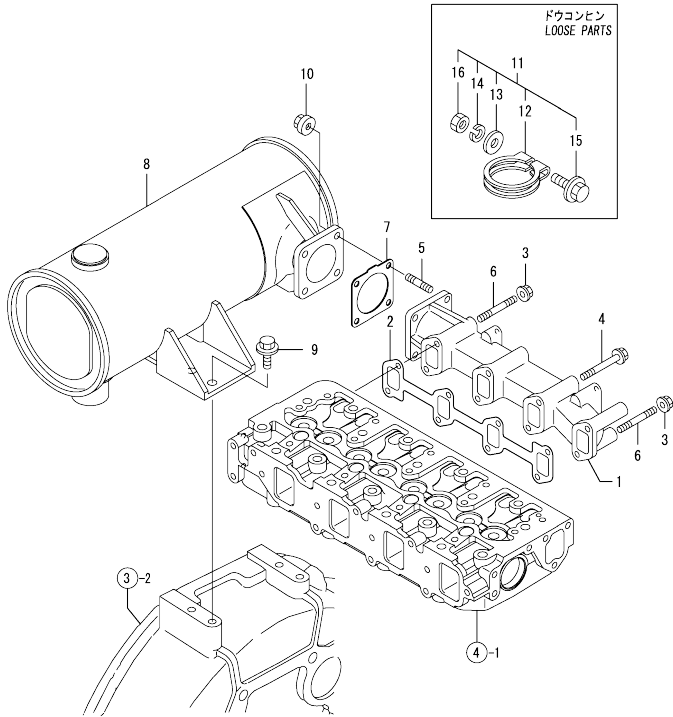
Fig.5. SUCTION MANIFOLD & AIR CLENER



No.	Lev.	Parts No.	Description	Q'ty					
				(A)	(B)	(C)	(D)	(E)	(F)
1	1	129601-03080	PIPE , BREATHER	1					
2	2	129410-03990	CLAMP 22		2				
3	1	129601-12100	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	129100-77500	HEATER, AIR 12V	1					
9	1	129100-77510	GASKET, AIR HEATER	1					
10	1	129150-77511	GASKET	1					
11	1	171340-77520	BEND	1					
12	1	26106-080402	BOLT, M8X 40 PLATED		2				
13	1	26106-080802	BOLT, M8X 80 PLATED		2				
14	1	129645-12510	BRACKET, AIR CLEANER	1					
15	1	129601-12620	CLEANER ASSY, AIR	1					
16	2	129906-12520	ELEMNER ASSY, AIR		1				
17	2	129457-12530	COVER		1				
18	2	119808-12540	VALVE, UNLOADER		1				
19	2	126650-12680	INDICATOR		1				
20	1	23000-060000	CLAMP, 60		1				
21	1	23000-080000	CLAMP, 80		1				
22	1	26013-080222	BOLT, M8X 22		6				



Fig.6. EXHAUST MANIFOLD & SILENCER

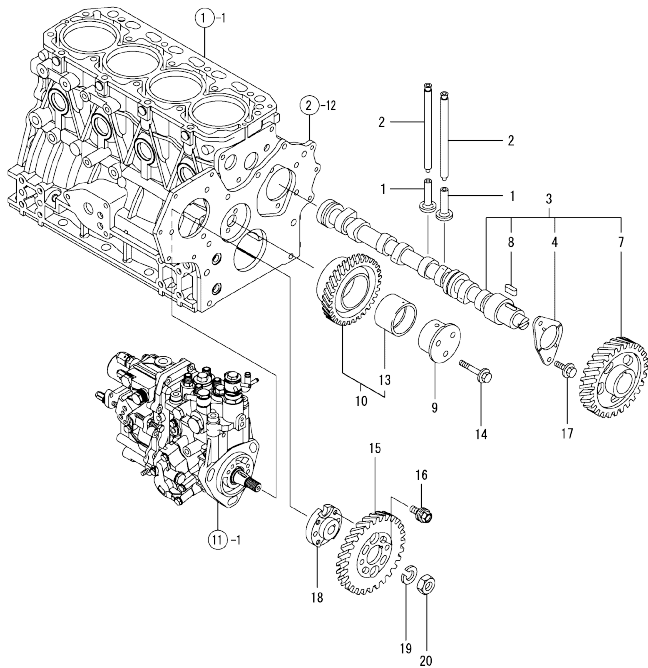


(A)=4TNV88-Q1K  
(B)=  
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129640-13109	MANIFOLD, EXHAUST	1							
2	1	129550-13110	GASKET	1							
3	1	26306-080002	NUT, M8	2							
4	1	123900-13630	BOLT, M8X80	6							
5	1	119131-18320	STUD, M8X22	4							
6	1	123900-13610	STUD, M8X80	2							
7	1	129930-13201	GASKET, SILENCER	1							
8	1	129640-13550	SILENCER	1							
9	1	26106-100202	BOLT, M10X 20 PLATED	2							
10	1	26306-080002	NUT, M8	4							
11	1	129640-13590	CLAMP ASSY	1							
12	2	129640-13580	CLAMP	1							
13	2	22117-100000	WASHER, 10	1							
14	2	22217-100000	WASHER, SPRING 10	1							
15	2	26106-100652	BOLT, M10X 65 PLATED	1							
16	2	26706-100002	NUT, M10	1							

Fig.7. CAMSHAFT & DRIVING GEAR



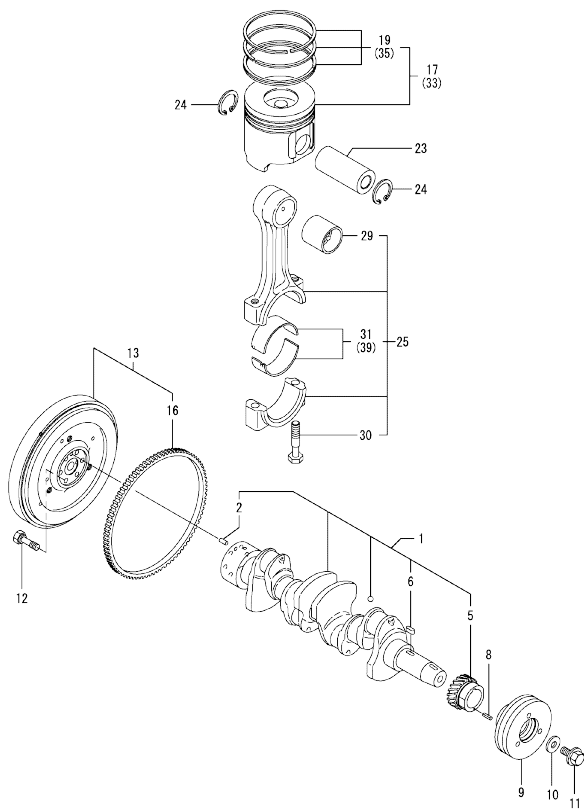
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(B)=  
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	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	119802-25051	SHAFT, IDLE	1							
10	1	119802-25101	GEAR ASSY, IDLE	1							
13	2	119802-25071	BUSH, IDLE GEAR	1							1
14	1	26106-080402	BOLT, M8X 40 PLATED	3							
15	1	119802-25901	GEAR, PUMP	1							
16	1	129150-25301	BOLT	4							
17	1	26106-080142	BOLT, M8X 14 PLATED	2							
18	1	158552-51151	FLANGE	1							
19	1	22217-140000	WASHER, SPRING 14	1							
20	1	26776-140002	NUT, LOCK M14	1							

Remarks  
(1) REPAIR PART.

Fig.8. CRANKSHAFT & PISTON



(A)=4TNV88-Q1K  
(B)=  
(C)=

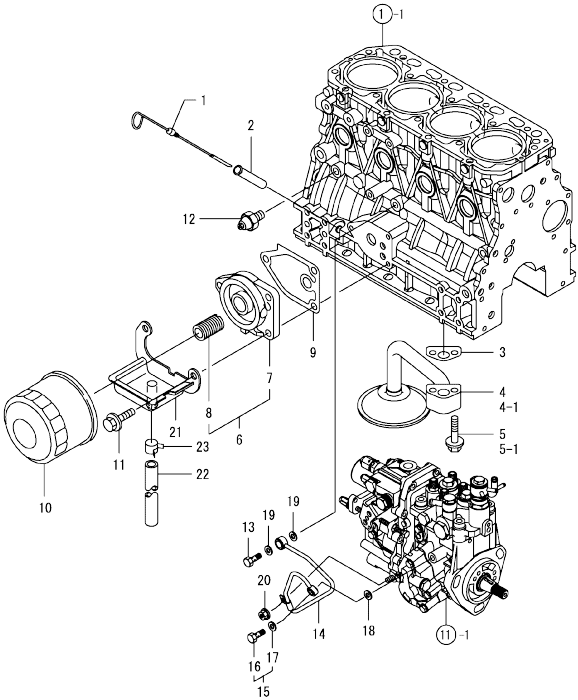
(D)=  
(E)=  
(F)=

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129601-21002	CRANKSHAFT ASSY	1							
2	2	129100-01580	PIN, M8X16	1							
5	2	119802-21202	GEAR, CRANKSHAFT	1							
6	2	22512-070140	KEY, 7X 14	1							
8	1	22351-030010	PIN, SPRING 3.0X10	1							
9	1	119802-21650	V-PULLEY, 110	1							
10	1	129795-21661	WASHER	1							
11	1	121850-21680	BOLT	1							
12	1	121111-21501	BOLT, FLYWHEEL	6							
13	1	129642-21590	FLYWHEEL ASSY	1							
16	2	119865-21600	GEAR, RING	1							
17	1	129005-22080	PISTON ASSY	4							
19	2	129005-22500	RING SET, PISTON	4							
23	1	129202-22300	PIN, PISTON D26 L70	4							
24	1	22252-000260	RING, 26	8							
25	1	729402-23100	ROD ASSY, CONNECTING	4							
29	2	129100-23910	BEARING, PISTON PIN	4							1
30	2	121550-23200	BOLT, CONNECTING ROD	8							
31	2	129150-23601	BEARING, CRANK PIN	4							
33	1	129005-22900	PISTON ASSY, 0.25 OS	4							2
35	2	129005-22950	RING SET, 0.25 OS	4							2
39	1	129150-23611	BEARING, 0.25 US	4							3

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

OCD10-M91000 ENGINE 4TNV88-QIK  
 Fig.9. LUB.OIL SYSTEM

OCD10-M91000 Fig.9



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

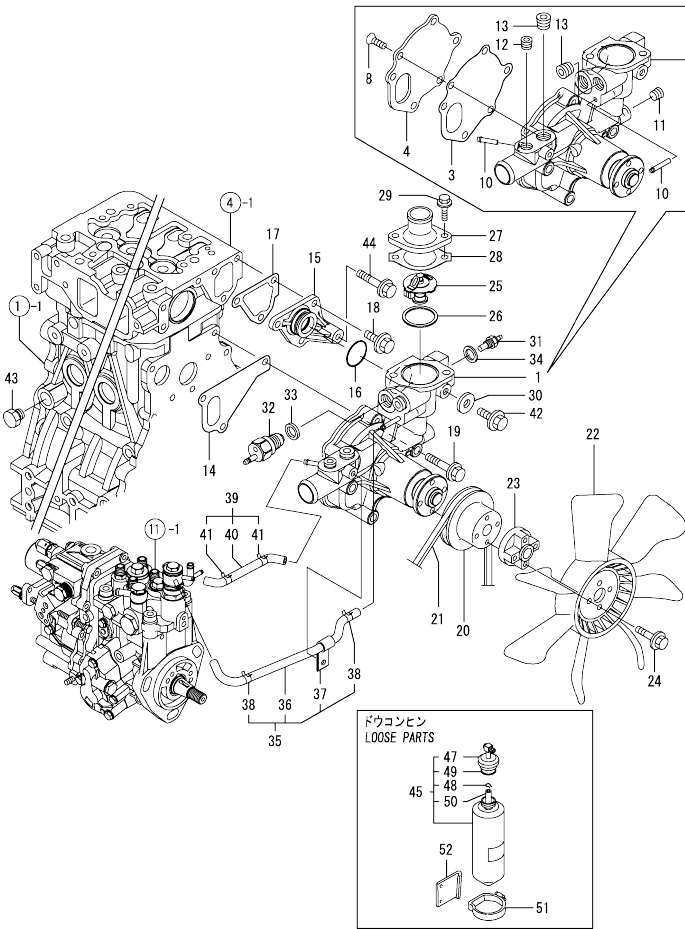
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 (E)=  
 (F)=

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129004-34802	DIPSTICK, OIL	1							
2	1	121520-34810	GUIDE, DIPSTICK	1							
3	1	129150-35042	GASKET	1							
4	1	129436-35091	PIPE ASSY, OIL INLET	1							
4-1	1	129436-35070	PIPE ASSY, LUB. OIL	1							S
(A=EZZZZZ)											
5	1	26106-080352	BOLT, M8X 35 PLATED	2							
5-1	1	26106-080552	BOLT, M8X 55 PLATED	2							S
(A=EZZZZZ)											
6	1	119802-35100	BRACKET ASSY, FILTER	1							
7	2	119802-35110	BRACKET, FILTER	1							
8	2	129100-35140	STUD	1							
9	1	129150-35111	GASKET	1							
10	1	129150-35153	FILTER 80X80L	1							1
11	1	26106-080202	BOLT, M8X 20 PLATED	3							
12	1	121252-39450	SWITCH, 0.5KG	1							
13	1	124160-39140	BOLT, PIPE JOINT M10	1							
14	1	119802-39450	PIPE ASSY, OIL	1							
15	1	129005-59830	BOLT ASSY, JOINT M8	1							
16	2	23857-030000	BOLT, JOINT 3	1							
17	2	22190-080002	WASHER, SEAL 6	1							
18	1	22190-080002	WASHER, SEAL 6	1							
19	1	22190-100002	WASHER, SEAL 10	2							
20	1	26366-060002	NUT, M6	1							
21	1	129240-35800	OIL PAN	1							
22	1	23065-120230	PIPE, 12X 230	1							
23	1	23080-014000	CLAMP, 14	1							

Remarks  
 (1) REPAIR PART.

N:Old  $\frac{100}{100}$  New, Q: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  
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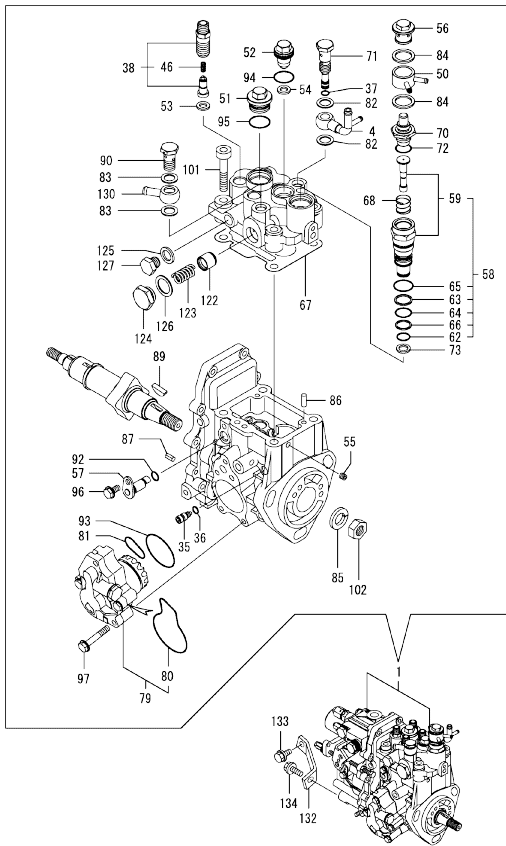
Fig.10. COOLING WATER SYSTEM



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							
8	2	121850-42410	SCREW	3							
10	2	119802-49113	JOINT, PIPE	2							
11	2	23876-010000	PLUG, R01	1							
12	2	23876-020000	PLUG, R02	1							
13	2	129916-49740	PLUG, R03	2							
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	26106-080162	BOLT, M8X 16 PLATED	3							
19	1	26106-080602	BOLT, M8X 60 PLATED	3							
20	1	129556-42350	V-PULLEY, 96	1							
21	1	119831-42290	V-BELT, A37.5	1							
22	1	129655-44740	FAN, COOLING D380	1							
23	1	171353-44760	SPACER, FAN	1							
24	1	26106-060402	BOLT, M6X 40 PLATED	4							
25	1	129155-49801	THERMOSTAT, 71	1							
26	1	129150-49811	GASKET, THERMOSTAT	1							
27	1	129350-49530	COVER, THERMOSTAT	1							
28	1	129795-49551	GASKET	1							
29	1	26106-080222	BOLT, M8X 22 PLATED	2							
30	1	23414-080000	GASKET, 8X1.0	1							
31	1	171056-49351	SENSOR	1							
32	1	121450-42450	PLUG, M16	1							
33	1	124465-44950	GASKET, 16	1							
34	1	129150-49360	GASKET	1							
35	1	129004-49610	PIPE ASSY, WATER	1							
36	2	129004-49711	PIPE ASSY, WATER	1							
37	2	119802-49730	RETAINER, PIPE	1							
38	2	124722-59050	CLIP, HOSE 9	2							
39	1	129004-49620	PIPE ASSY, WATER	1							
40	2	129004-49721	PIPE ASSY, WATER	1							
41	2	124722-59050	CLIP, HOSE 9	2							
42	1	26106-080122	BOLT, M8X 12 PLATED	1							
43	1	171056-49120	PLUG, DRAIN	1							
44	1	26106-080452	BOLT, M8X 45 PLATED	1							
45	1	171064-44510	TANK ASSY, SUB	1							
47	2	121450-44531	CAP	1							
48	2	124450-44560	RETAINER	1							
49	2	121470-44581	GASKET	1							
50	2	23065-070225	HOSE 7X 225	1							
51	1	124450-44550	BAND	1							
52	1	121256-44600	BRACKET, SUB TANK	1							

N:Old  $\frac{100}{100}$  New, Q: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  
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Fig.11. FUEL INJECTION PUMP



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

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

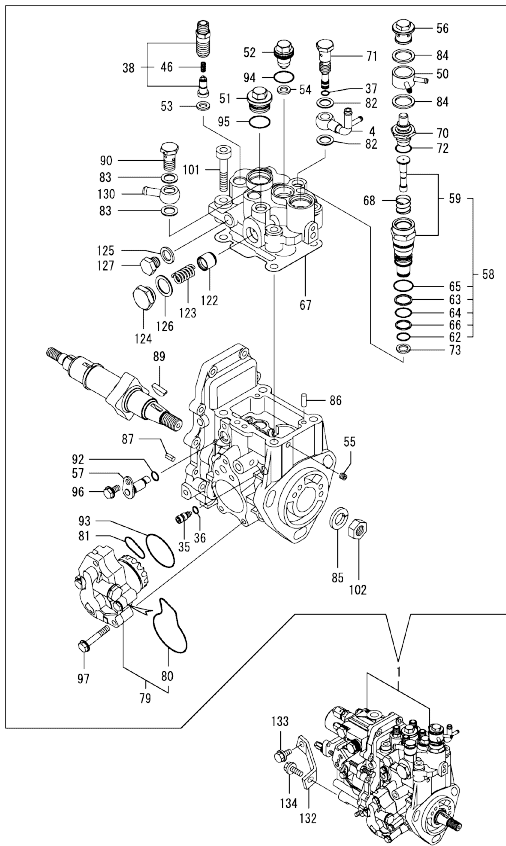
No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	729645-51400	PUMP ASSY, INJECTION	1							1
4	2	158552-51670	JOINT, OVER FLOW	1							
35	2	158600-51270	STOPPER, TAPPET	1							
36	2	158563-51281	O-RING, 4D S6	1							
37	2	158563-51281	O-RING, 4D S6	1							
38	2	129509-51390	VALVE ASSY, DELIVERY	4							W
(A=2008.02.)											
46	3	158563-51330	SPRING, DELIVERY	4							
50	2	158553-51551	JOINT	1							
51	2	158601-51550	PLUG	1							
52	2	119802-51560	PLUG, BARREL	1							
53	2	158552-51570	GASKET	4							
54	2	158552-51570	GASKET	1							
55	2	158557-51570	PLUG	1							
56	2	158601-51570	PLUG	1							
57	2	158552-51580	LIFTER	1							
58	2	119802-51590	TIMER SET	1							
59	3	119802-51600	TIMER ASSY	1							
62	3	158553-51670	O-RING, 1011	1							
63	3	119802-51680	RING, BACK UP	1							
64	3	119802-51690	O-RING	1							
65	3	24356-010200	O-RING, 4D1020	1							
66	3	24372-000150	RING, BACK UP T2P15	1							
67	2	158552-51600	GASKET	1							
68	2	158553-51630	SPRING, TIMER	1							
70	2	158553-51640	ELEMENT	1							
71	2	158601-51650	JOINT, OVER FLOW	1							
72	2	158553-51660	O-RING, P14	1							
73	2	158553-51680	GASKET	1							
79	2	158552-52100	PUMP ASSY, FUEL FEED	1							
80	3	158552-52500	O-RING	1							
81	2	158552-52310	O-RING	1							
82	2	22190-120002	WASHER, SEAL 12	2							
83	2	22190-120002	WASHER, SEAL 12	2							
84	2	22190-180002	WASHER, SEAL 18	2							
85	2	22217-140000	WASHER, SPRING 14	1							
86	2	22312-050140	PIN, PARALLEL M5X14	2							
87	2	22351-050010	PIN, SPRING 5.0X10	2							
89	2	119802-51090	KEY, 4X16	1							
90	2	23857-060000	BOLT, JOINT 6	1							
92	2	24311-000070	O-RING, 1AP7.0	1							
93	2	158552-52400	O-RING, 4E S42	1							
94	2	24356-010180	O-RING, 4D1018	1							
95	2	24356-010200	O-RING, 4D1020	1							
96	2	26106-060102	BOLT, M6X 10 PLATED	1							
97	2	158553-51770	BOLT	4							
101	2	26450-080452	BOLT, M8X 45	4							
102	2	26776-140002	NUT, LOCK M14	1							
122	2	158601-51770	PISTON	1							
123	2	158552-51780	SPRING	1							
124	2	158601-51790	PLUG	1							

Remarks  
(1) GOVERNOR ASSY(FIG.12) IS INCORPORATED IN THIS FOP.CMP (REF.NO.1).

N:Old  $\frac{100}{100}$  New, Q: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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OCD10-M91000 ENGINE 4TNV88-QIK  
 Fig.11. FUEL INJECTION PUMP

OCD10-M91000 Fig.11



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

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

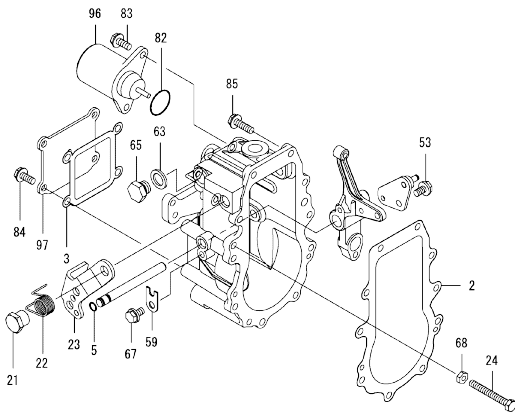
No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
125	2	22190-120002	WASHER, SEAL 12	1							
126	2	22190-180002	WASHER, SEAL 18	1							
127	2	23887-120002	PLUG, 12	1							
130	2	129916-59020	JOINT, PIPE 12	1							
132	1	129601-51250	RETAINER, PUMP	1							
133	1	26106-080162	BOLT, M8X 16 PLATED	1							
134	1	26106-080202	BOLT, M8X 20 PLATED	1							

Remarks  
 (1) GOVERNOR ASSY(FIG.12) IS  
 INCORPORATED IN THIS FOP.CMP  
 (REF.NO.1).

N:Old  $\frac{100}{100}$  New, Q: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  
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OCD10-M91000 ENGINE 4TNV88-QIK  
 Fig.12. GOVERNOR

OCD10-M91000 Fig.12



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

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

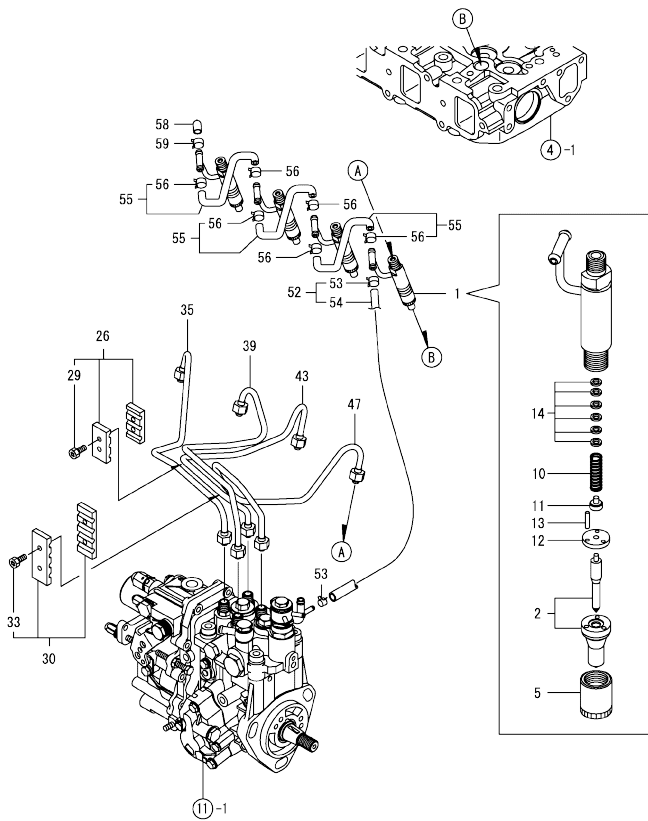
No.	Lev.	Parts No.	Description	Q'ty					
				(A)	(B)	(C)	(D)	(E)	(F)
2	2	158553-61050	GASKET	1					
3	2	158553-61070	GASKET	1					
5	2	129155-51280	O-RING, S6	1					
21	2	129255-61410	NUT, LOCK	1					
22	2	119807-61420	SPRING, RETURN	1					
23	2	158552-61441	LEVER, REGULATOR	1					
53	2	26106-060102	BOLT, M6X 10 PLATED	1					
59	2	119660-61901	RETAINER, SHAFT	1					
63	2	22190-120000	WASHER, SEAL 12	1					
65	2	23887-120002	PLUG, 12	1					
67	2	26106-060102	BOLT, M6X 10 PLATED	1					
68	2	26756-060002	NUT, LOCK M6	1					
82	2	158552-61900	O-RING	1					
83	2	26106-060142	BOLT, M6X 14 PLATED	2					
84	2	26106-060142	BOLT, M6X 14 PLATED	4					
85	2	26106-060202	BOLT, M6X 20 PLATED	10					
96	2	119233-77932	SOLENOID, STOP	1					
97	2	129642-61060	COVER, GOVERNOR CASE	1					

Remarks  
 \* THIS FIGURE(GOVERNOR ASSY)IS  
 INCORPORATED IN THE FUEL INJECTION  
 PUMP ASSY(FIG.11).

N:Old  $\frac{100}{100}$  New, Q: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:Qty Change  
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Fig.13. FUEL INJECTION VALVE

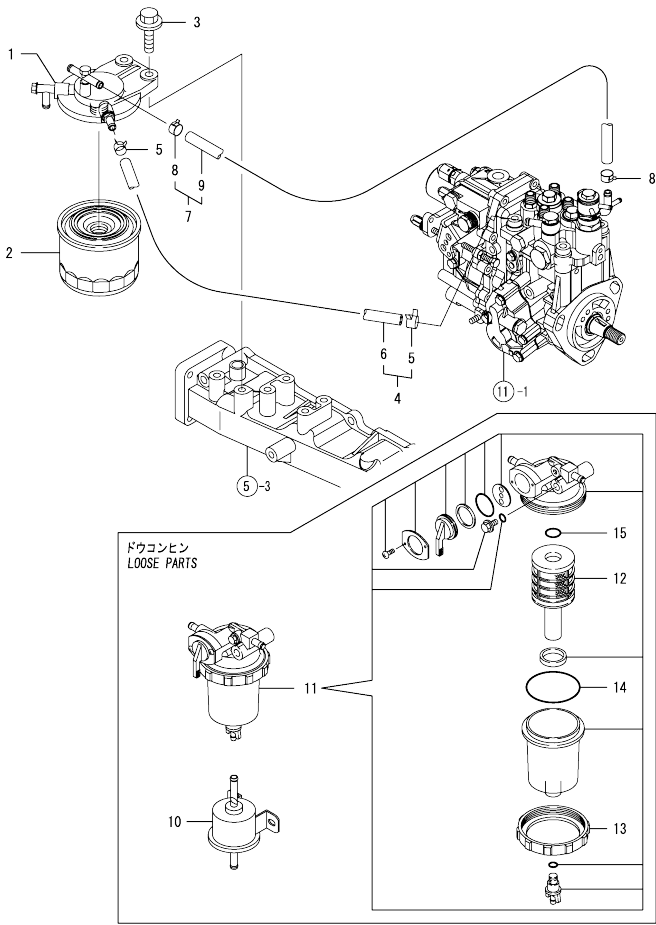


(A)=4TNV88-QIK  
(B)=  
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	729642-53100	VALVE ASSY,INJECTION	4							
2	2	129640-53001	VALVE ASSY,INJECTION	4							
5	2	114250-53080	NUT, NOZZLE D16.95	4							
10	2	114250-53120	SPRING, NOZZLE	4							
11	2	114250-53130	SEAT, SPRING	4							
12	2	114250-53140	PLATE	4							
13	2	114250-53210	PIN	8							
14	2	114250-53400	SHIM SET	4							
26	1	129150-59120	RETAINER, PIPE	1							
29	2	129150-59131	BOLT, M4X14	2							
30	1	129550-59120	RETAINER, PIPE	1							
33	2	129150-59131	BOLT, M4X14	2							
35	1	129601-59810	PIPE ASSY, INJECTION	1							
39	1	129601-59820	PIPE ASSY, INJECTION	1							
43	1	129601-59830	PIPE ASSY, INJECTION	1							
47	1	129601-59840	PIPE ASSY, INJECTION	1							
52	1	119802-59550	PIPE ASSY, RETURN	1							
53	2	124722-59050	CLIP, HOSE 9	2							
54	2	119802-59560	PIPE, FUEL RETURN	1							
55	1	129486-59551	PIPE ASSY, RETURN	3							
56	2	124722-59050	CLIP, HOSE 9	6							
58	1	119593-59581	CAP	1							
59	1	124060-77680	CLIP, HOSE 10	1							

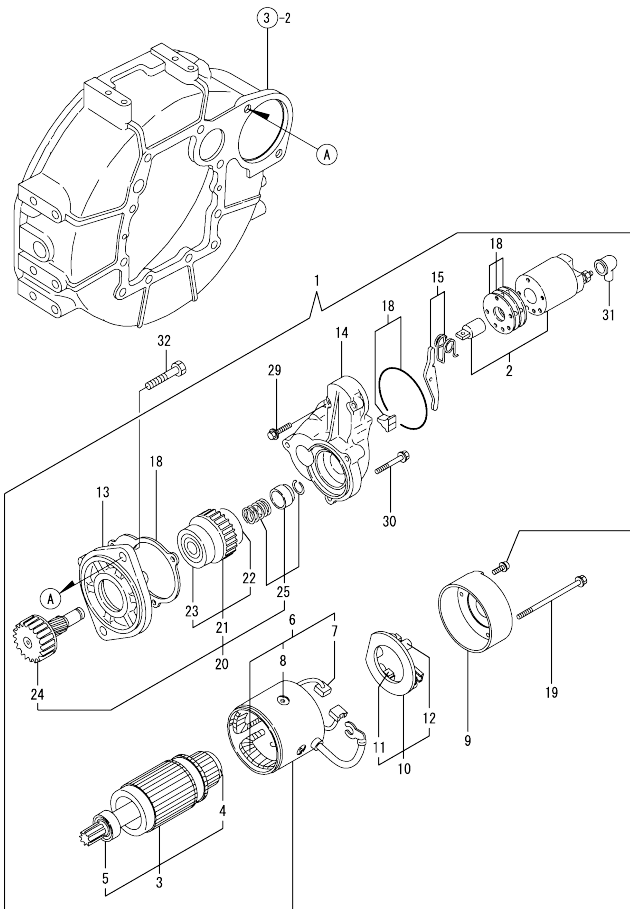
Fig.14. FUEL LINE



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	129210-59090	PIPE ASSY, FUEL	1							
5	2	124766-59050	CLIP, HOSE 12	2							
6	2	105325-59570	PIPE, FUEL	1							
7	1	129210-59150	PIPE ASSY, FUEL	1							
8	2	124766-59050	CLIP, HOSE 12	2							
9	2	105025-59530	PIPE, FUEL D13X400	1							
10	1	119225-52102	PUMP ASSY, FUEL FEED	1							
11	1	119802-55700	SEPARATOR ASSY	1							
12	2	119802-55710	ELEMENT	1							
13	2	129100-55690	RING, RETAINING	1							
14	2	24321-000650	O-RING, 1AG65.0	1							
15	2	24311-000160	O-RING, 1AP16.0	1							

OCD10-M91000 ENGINE 4TNV88-QIK  
 Fig.15. STARTING MOTOR

OCD10-M91000 Fig.15

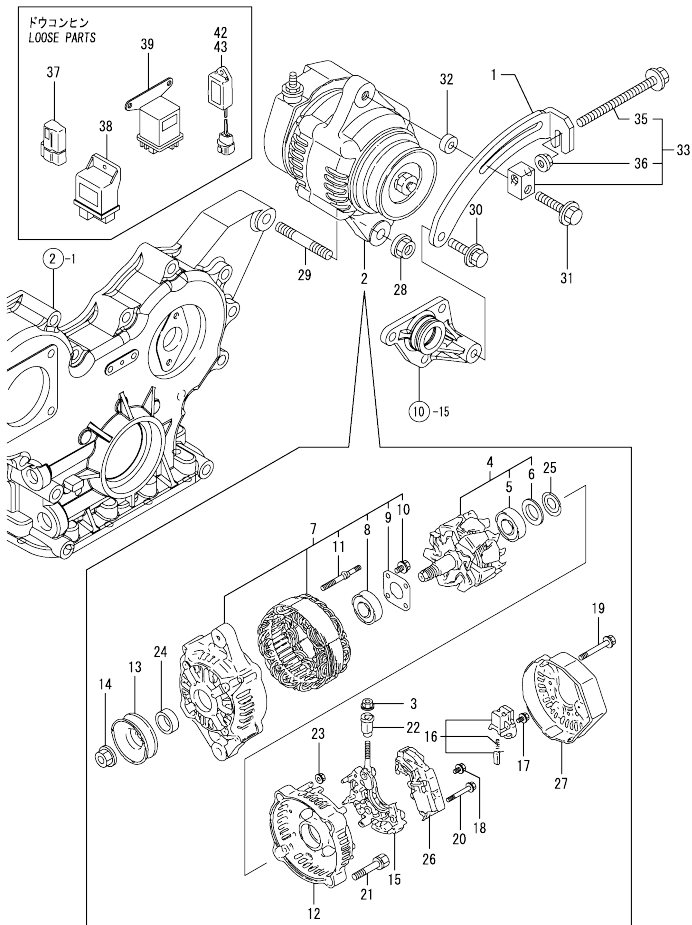


(A)=4TNV88-QIK  
 (B)=  
 (C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129136-77011	STARTER	1							
2	2	129136-77310	SWITCH ASSY	1							
3	2	129900-77400	ARMATURE ASSY	1							
4	3	X2130350900	BALL BEARING	1							
5	3	X2114255110	BEARING, BALL	1							
6	2	129900-77440	COIL ASSY, FIELD	1							
7	3	129900-77450	BRUSH (+)	2							
8	3	171008-77450	SCREW	4							
9	2	129900-77460	COVER, REAR	1							
10	2	129900-77480	HOLDER ASSY, BRASH	1							
11	3	129900-77450	BRUSH (+)	2							
12	3	129400-77490	SPRING, BRUSH	4							
13	2	171008-77510	HOUSING ASSY, GEAR	1							
14	2	129136-77520	CENTER HOUSING	1							
15	2	171008-77540	LEVER SET, SHIFT	1							
18	2	129400-77571	DUST COVER, (NON-ASB.	1							
19	2	129900-77640	BOLT, THROUGHT	2							
20	2	171008-77650	PINION ASSY	1							
21	3	X2114555500	CLUTCH ASSY	1							
22	4	X2114955020	BALL BEARING	1							
23	4	X2240410100	BEARING, BALL	1							
24	3	171008-77660	SHAFT, PINION	1							
25	3	171008-77670	STOPPER SET, PINION	1							
29	2	26106-060322	BOLT, M6X 32 PLATED	2							
30	2	26106-060402	BOLT, M6X 40 PLATED	3							
31	2	171008-77750	COVER, M TERMINAL	1							
32	1	26116-120252	BOLT, M12X 25 PLATED	2							

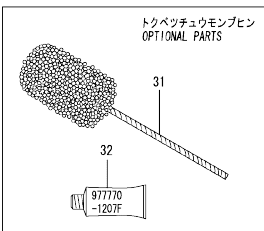
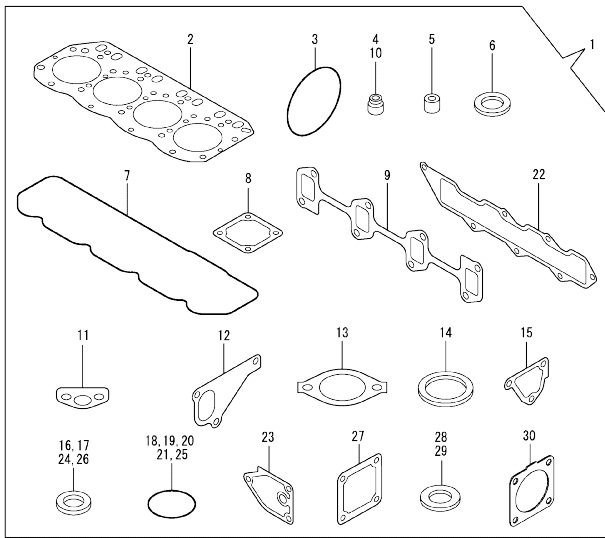
Fig.16. GENERATOR



No.	Lev.	Parts No.	Description	Qty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129240-77320	ADJUSTER	1							
2	1	129240-77200	ALTERNATOR	1							
3	2	129240-79310	NUT	1							
4	2	119620-77380	ROTOR ASSY	1							
5	3	126501-79240	BALL BEARING	1							
6	3	119620-79250	COVER, BEARING	1							
7	2	119620-77421	FRAME ASSY, DRIVE	1							
8	3	119620-79200	BALL BEARING	1							
9	3	119620-79210	PLATE	1							
10	3	119620-79220	SCREW	4							
11	3	119620-79230	BOLT, STUD	2							
12	2	119620-77440	FLAME ASSY, REAR	1							
13	2	119620-77461	PULLEY	1							
14	2	119620-77471	NUT	1							
15	2	119620-79260	HOLDER	1							
16	2	129052-79270	HOLDER, BRUSH	1							
17	2	119620-79290	SCREW	6							
18	2	119620-79300	SCREW	1							
19	2	119620-79310	BOLT	3							
20	2	119620-79320	SCREW WWASHER	2							
21	2	119620-79330	BOLT	2							
22	2	119620-79340	INSULATION BUSH	1							
23	2	119620-79350	NUT	2							
24	2	119620-77490	COLLAR	1							
25	2	119620-79360	WASHER, THRUST	1							
26	2	129240-77710	REGULATOR ASSY	1							
27	2	129240-79300	COVER	1							
28	1	26306-100002	NUT, M10	1							
29	1	129795-01900	STUD	1							
30	1	26106-080452	BOLT, M8X 45 PLATED	1							
31	1	26106-080552	BOLT, M8X 55 PLATED	1							
32	1	119940-77270	SPACER, GENERATOR	1							
33	1	119624-77351	BLOCK ASSY, ADJUSTER	1							
35	2	26106-081004	BOLT, M8X100 PLATED	1							
36	2	26306-080002	NUT, M8	1							
37	1	119643-66900	DIODE	1							
38	1	119802-77200	RELAY, SAFETY	1							
39	1	119650-77910	RELAY ASSY, GLOW	1							
42	1	128300-77920	TIMER	1							
43	1	129211-77920	TIMER	1							

N:Old  $\frac{100}{100}$  New, Q: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:Qty Change  
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Fig.17. GASKET SET



Remarks  
(1) OPTIONAL PARTS.

No.	Lev.	Parts No.	Description	Q'ty						I	R	
				(A)	(B)	(C)	(D)	(E)	(F)			
1	1	729601-92980	GASKET SET	1							1	
2	2	129407-01340	GASKET, HEAD	1								
3	2	121850-51960	O-RING	1								
4	2	124460-11340	SEAL, VALVE STEM	4								
5	2	119802-11870	PROTECTOR, NOZZLE	4								
6	2	119625-11880	SEAT, NOZZLE	4								
7	2	129601-11310	GASKET, BONNET	1								
8	2	129150-77511	GASKET	1								
9	2	129550-13110	GASKET	1								
10	2	121400-11340	SEAL, VALVE STEM	4								
11	2	129150-35042	GASKET	1								
12	2	129486-42021	GASKET, WATER PUMP	1								
13	2	129795-49551	GASKET	1								
14	2	129150-49811	GASKET, THERMOSTAT	1								
15	2	124395-49840	GASKET	1								
16	2	22190-080002	WASHER, SEAL 6	2								
17	2	124465-44950	GASKET, 16	1								
18	2	24311-000120	O-RING, 1AP12.0	3								
19	2	24311-000320	O-RING, 1AP32.0	2								
20	2	24341-000240	O-RING, 1AS24.0	1								
21	2	129486-42140	O-RING, G30	1								
22	2	129407-12110	GASKET, MANIFOLD	1								
23	2	129150-35111	GASKET	1								
24	2	22190-220002	WASHER, SEAL 22	1								
25	2	119609-32040	O-RING, P16	4								
26	2	22190-100002	WASHER, SEAL 10	2								
27	2	129100-77510	GASKET, AIR HEATER	1								
28	2	23414-080000	GASKET, 8X1.0	1								
29	2	129150-49360	GASKET	1								
30	2	129930-13201	GASKET, SILENCER	1								
31	1	129400-92430	HONE	1								1
32	1	977770-1207F	GASKET, LIQUID	1								1

## Parts No. Index

Parts No.	Fig. No.	Ref. No.
105025-59530	14	9
105325-59570	14	6
114250-53080	13	5
114250-53120	13	10
114250-53130	13	11
114250-53140	13	12
114250-53210	13	13
114250-53400	13	14
119131-18320	6	5
119225-52102	14	10
119233-77932	12	96
119593-59581	13	58
119609-32040	2	17
	17	25
119620-01750	3	3
119620-77380	16	4
119620-77421	16	7
119620-77440	16	12
119620-77461	16	13
119620-77471	16	14
119620-77490	16	24
119620-79200	16	8
119620-79210	16	9
119620-79220	16	10
119620-79230	16	11
119620-79250	16	6
119620-79260	16	15
119620-79290	16	17
119620-79300	16	18
119620-79310	16	19
119620-79320	16	20
119620-79330	16	21
119620-79340	16	22
119620-79350	16	23
119620-79360	16	25
119624-77351	16	33
119625-11880	4	20
	17	6
119640-01640	3	9
119643-66900	16	37
119650-77910	16	39
119660-61901	12	59
119802-01520	2	12
119802-01561	2	13
119802-03110	4	41
119802-03121	4	42
119802-03130	4	43
119802-03141	4	44
119802-11260	4	26
119802-11270	4	27

Parts No.	Fig. No.	Ref. No.
119802-11870	4	19
	17	5
119802-21202	8	5
119802-21650	8	9
119802-25051	7	9
119802-25071	7	13
119802-25101	7	10
119802-25901	7	15
119802-32070	2	8
119802-32100	2	7
119802-32111	2	18
119802-32120	2	19
119802-32130	2	20
119802-35100	9	6
119802-35110	9	7
119802-39450	9	14
119802-49113	10	10
119802-49730	10	37
119802-51090	11	89
119802-51560	11	52
119802-51590	11	58
119802-51600	11	59
119802-51680	11	63
119802-51690	11	64
119802-55700	14	11
119802-55710	14	12
119802-55801	14	2
119802-59550	13	52
119802-59560	13	54
119802-77200	16	38
119807-61420	12	22
119808-12540	5	18
119831-42290	10	21
119865-21600	8	16
119940-77270	16	32
120130-11860	4	5
120270-54410	4	23
121023-01551	2	28
121111-21501	8	12
121252-39450	9	12
121256-44600	10	52
121400-11340	4	16
	17	10
121450-42450	10	32
121450-44531	10	47
121470-44581	10	49
121520-34810	9	2
121550-23200	8	30
121850-21680	8	11
121850-42410	10	8

Parts No.	Fig. No.	Ref. No.
121850-51960	2	21
	17	3
123900-13610	6	6
123900-13630	6	4
124060-01050	1	10
124060-77680	13	59
124160-01751	2	14
	4	50
124160-01910	1	5
	15	15
124160-11360	4	52
124160-39140	9	13
124240-01871	2	15
124395-49840	10	17
	17	15
124450-44550	10	51
124450-44560	10	48
124460-11340	4	17
	17	4
124465-44950	10	33
	17	17
124722-59050	10	38
	41	41
	13	53
	56	56
124766-59050	14	5
	8	8
126501-79240	16	5
126650-12680	5	19
128300-77920	16	42
129001-01250	1	11
129001-02931	1	25
129001-32330	2	11
129001-91841	2	22
129004-01190	1	33
129004-03010	4	39
129004-11130	4	10
129004-11650	4	31
129004-11900	4	21
129004-34802	9	1
129004-42001	10	1
129004-42040	10	15
129004-49610	10	35
129004-49620	10	39
129004-49711	10	36
129004-49721	10	40
129004-55612	14	1
129005-22080	8	17
129005-22500	8	19
129005-22900	8	33

Parts No.	Fig. No.	Ref. No.
129005-22950	8	35
129005-59830	9	15
129052-79270	16	16
129100-01580	3	1
	8	2
129100-01640	3	16
129100-11112	4	11
129100-23910	8	29
129100-35140	9	8
129100-42051	10	3
129100-42121	10	4
129100-55690	14	13
129100-77500	5	8
129100-77510	5	9
	17	27
129136-77011	15	1
129136-77310	15	2
129136-77520	15	14
129150-01200	1	31
129150-02020	1	7
129150-02450	7	4
129150-02871	1	34
129150-02931	1	28
129150-02941	1	37
129150-03070	4	40
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129150-11280	4	28
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129150-11750	4	34
129150-11810	4	7
129150-14101	7	7
129150-14200	7	1
129150-14400	7	2
129150-23601	8	31
129150-23611	8	39
129150-25301	7	16
129150-35042	9	3
	17	11
129150-35111	9	9
	17	23
129150-35153	9	10
129150-49360	10	34
	17	29
129150-49811	10	26
	17	14
129150-59120	13	26
129150-59131	13	29
	17	33
129150-77511	5	10

## Parts No. Index

Parts No.	Fig. No.	Ref. No.	Parts No.	Fig. No.	Ref. No.	Parts No.	Fig. No.	Ref. No.	Parts No.	Fig. No.	Ref. No.
129150-77511	17	8	129601-51250	11	132	158552-61441	12	23	22217-140000	11	85
129155-49801	10	25	129601-59810	13	35	158552-61900	12	82	22252-000260	8	24
129155-51280	12	5	129601-59820	13	39	158553-51551	11	50	22312-050140	11	86
129202-22300	8	23	129601-59830	13	43	158553-51630	11	68	22351-030010	8	8
129210-59090	14	4	129601-59840	13	47	158553-51640	11	70	22351-050010	11	87
129210-59150	14	7	129612-01600	3	2	158553-51660	11	72	22351-060012	4	22
129211-77920	16	43	129640-13109	6	1	158553-51670	11	62	22512-070140	7	8
129240-35800	9	21	129640-13550	6	8	158553-51680	11	73		8	6
129240-77200	16	2	129640-13580	6	12	158553-51770	11	97	22857-500100	4	48
129240-77320	16	1	129640-13590	6	11	158553-61050	12	2			49
129240-77710	16	26	129640-53001	13	2	158553-61070	12	3	23000-060000	5	20
129240-79300	16	27	129642-21590	8	13	158557-51570	11	55	23000-080000	5	21
129240-79310	16	3	129642-61060	12	97	158563-51281	11	36	23065-070225	10	50
129255-61410	12	21	129645-12510	5	14			37	23065-120230	9	22
129350-49530	10	27	129655-44740	10	22	158563-51330	11	46	23080-014000	9	23
129400-01730	3	6	129795-01780	3	18	158600-51270	11	35	23414-080000	10	30
129400-77490	15	12	129795-01800	2	6	158601-51550	11	51		17	28
129400-77571	15	18	129795-01900	16	29	158601-51570	11	56	23857-030000	9	16
129400-92430	17	31	129795-01950	2	16	158601-51650	11	71	23857-060000	11	90
129407-01340	1	32	129795-02412	1	14	158601-51770	11	122	23876-010000	10	11
	17	2	129795-11120	4	12	158601-51790	11	124	23876-020000	10	12
129407-12110	5	5	129795-11180	4	13	171008-77450	15	8	23876-030000	2	4
	17	22	129795-21661	8	10	171008-77510	15	13	23876-040000	2	5
129410-03990	5	2	129795-49551	10	28	171008-77540	15	15	23887-120002	11	127
129418-32320	2	10		17	13	171008-77650	15	20		12	65
129436-01780	3	8	129900-07900	4	54	171008-77660	15	24	24311-000070	11	92
129436-35070	9	4 -1	129900-32130	2	9	171008-77670	15	25	24311-000120	4	53
129436-35091	9	4	129900-77400	15	3	171008-77750	15	31		17	18
129457-12530	5	17	129900-77440	15	6	171051-01921	1	6	24311-000160	14	15
129486-01670	3	19	129900-77450	15	7	171056-49120	10	43	24311-000320	2	23
129486-42021	10	14			11	171056-49351	10	31		4	51
	17	12	129900-77460	15	9	171064-44510	10	45		17	19
129486-42140	10	16	129900-77480	15	10	171340-77520	5	11	24321-000650	14	14
	17	21	129900-77640	15	19	171353-44760	10	23	24341-000240	2	29
129486-59551	13	55	129906-12520	5	16	22117-100000	6	13		17	20
129509-51390	11	38	129916-49740	10	13	22190-080002	9	17	24356-010180	11	94
129550-13110	6	2	129916-59020	11	130			18	24356-010200	11	65
	17	9	129930-13201	6	7			16			95
129550-59120	13	30		17	30	22190-100002	9	19	24372-000150	11	66
129556-42350	10	20	158552-51151	7	18			17	26013-080222	5	22
129601-03080	5	1	158552-51570	11	53	22190-120000	12	63	26106-060102	11	96
129601-11241	4	25			54	22190-120002	11	82		12	53
129601-11251	4	29	158552-51580	11	57			83			67
129601-11310	4	47	158552-51600	11	67			125	26106-060142	12	83
	17	7	158552-51670	11	4	22190-180002	11	84			84
129601-11350	4	38	158552-51780	11	123			126	26106-060162	2	30
129601-11700	4	1	158552-52100	11	79	22190-220002	3	11	26106-060202	12	85
129601-12100	5	3	158552-52310	11	81			17	26106-060322	15	29
129601-12620	5	15	158552-52400	11	93	22217-100000	6	14	26106-060402	10	24
129601-21002	8	1	158552-52500	11	80	22217-140000	7	19		15	30

## Parts No. Index

Parts No.	Fig. No.	Ref. No.
26106-080122	10	42
26106-080142	7	17
26106-080162	2	24
		25
	3	12
	4	55
	10	18
	11	133
26106-080202	5	6
	9	11
	11	134
26106-080222	10	29
26106-080252	3	13
	4	36
26106-080302	14	3
26106-080352	3	20
	4	24
	9	5
26106-080402	5	12
	7	14
26106-080452	3	14
	14	-1
	10	44
	16	30
26106-080502	3	22
	4	37
26106-080552	2	26
	9	5 -1
	16	31
26106-080602	10	19
26106-080802	5	7
		13
26106-081004	16	35
26106-100202	6	9
26106-100652	6	15
26116-120252	15	32
26206-100252	3	4
26206-100302	3	5
26226-080182	4	35
26306-080002	2	27
	6	3
		10
	16	36
26306-100002	16	28
26366-060002	9	20
26450-080452	11	101
26706-100002	6	16
26756-060002	12	68
26776-140002	7	20
	11	102

Parts No.	Fig. No.	Ref. No.
27241-120000	1	12
27241-300000	1	13
27241-400000	4	9
27310-080001	4	14
719802-01500	2	1
729402-14580	7	3
729402-23100	8	25
729601-92980	17	1
729602-01560	1	1
729642-53100	13	1
729645-51400	11	1
977770-1207F	2	31
	3	21
	4	56
	17	32
X2114255110	15	5
X2114555500	15	21
X2114955020	15	22
X2130350900	15	4
X2240410100	15	23

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