

0CW10-M77501EN

P R E F A C E

1. This parts catalog is the 2nd edition of 4TNV98-ZPJLW for LIEBHERR.

Pub. No. : 0CW10-G77501

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2. Model name

Engine model	Vehicle	Vehicle made by
4TNV98-ZPJLW	WHEEL LOADER	LIEBHERR

Contents

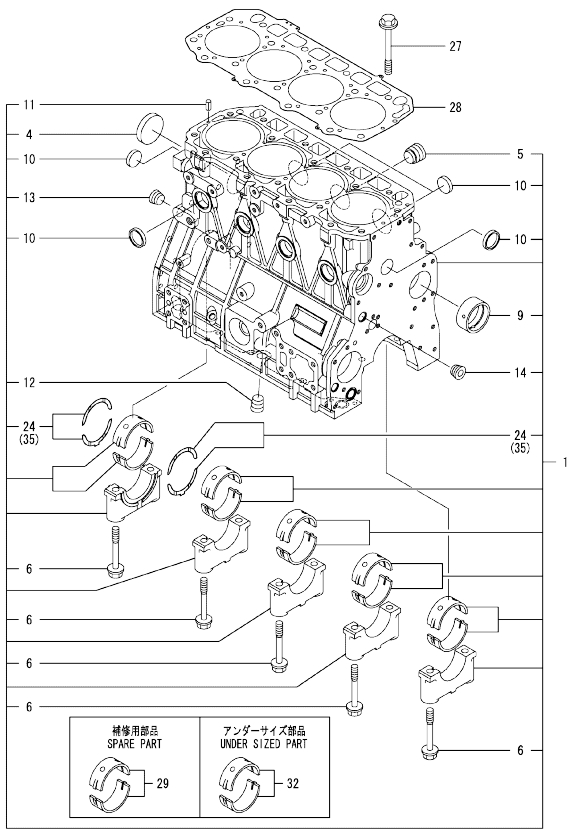
0CW10-M77501

Fig. No.	Fig. Name	Fig. No.	Fig. Name
4TNV98-ZPJLW			
1.	CYLINDER BLOCK		
2.	GEAR HOUSING		
3.	FLYWHEEL HOUSING & OIL SUMP		
4.	CYLINDER HEAD & BONNET		
5.	SUCTION MANIFOLD		
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.	ELECTRONIC CONTROL UNIT (ECU)		
18.	GASKET SET		

Fig.1. CYLINDER BLOCK

(A)=4TNV98-ZPJLW
(B)=
(C)=

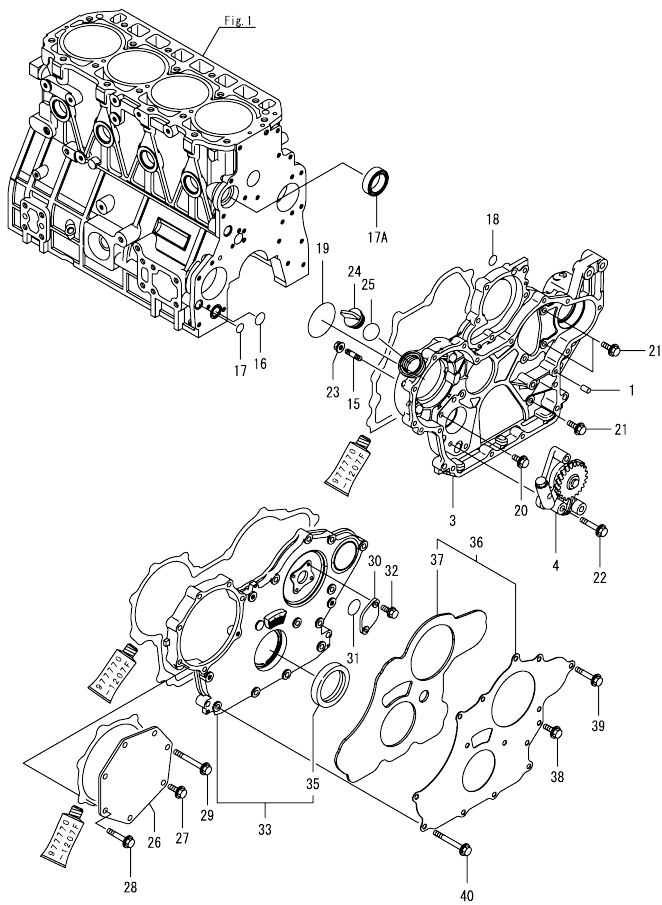
(D)=
(E)=
(F)=



No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	729927-01560	BLOCK ASSY, CYLINDER	1							
4	2	129900-01250	PLUG, DISH TYPE 55	1							
5	2	171051-01921	PLUG, NPTF1	1							
6	2	129900-02020	BOLT, METAL CAP	10							
9	2	129900-02410	BUSH, CAMSHAFT	1							
10	2	27241-300000	PLUG 30	8							
11	2	22351-060012	PIN, SPRING 6.0X12	2							
12	2	23876-030000	PLUG, R03	1							
13	2	23876-030000	PLUG, R03	1							
14	2	23876-030000	PLUG, R03	1							
24	2	129900-02931	BEARING ASSY, THRUST	2							
27	1	129900-01200	BOLT, CYLINDER HEAD	18							
28	1	129907-01331	GASKET, HEAD	1							
29	1	729900-02801	BEARING, MAIN	5							1
32	1	129900-02341	BEARING ASSY, MAIN	5							2
35	1	129900-02941	BEARING, THRUST 0.25	2							3

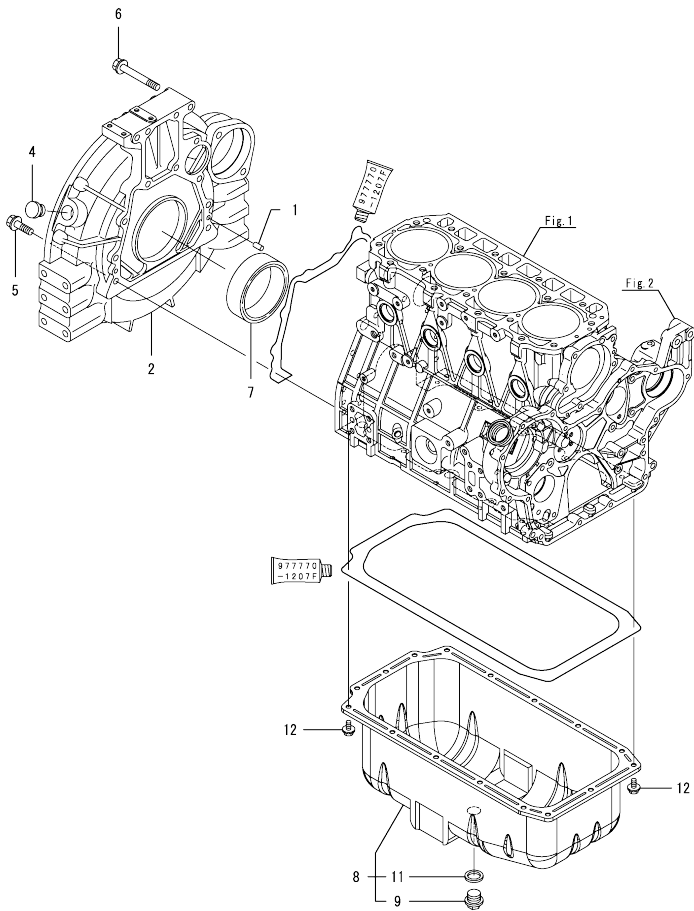
Remarks
(1)Spare part.
(2)Under-sized(U.S.=0.25)part.
(3)Over-sized(O.S.=0.25)part.

Fig.2. GEAR HOUSING



No.	Lev.	Parts No.	Description	Qty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129100-01580	PIN, PARALLEL 8X16	4							
3	1	129944-01500	CASE, GEAR	1							
4	1	129900-32001	PUMP ASSY, OIL	1							
15	1	26216-100302	STUD, M10X 30	4							
16	1	129900-32030	O-RING, P20	1							
17	1	129900-32040	O-RING, P14	1							
17A	1	129927-42140	GASKET, PUMP OUTLET	1							W
(A=ET4847)											
18	1	24311-000070	O-RING, 1AP7.0	1							
19	1	24351-030750	O-RING, 1A3075	1							
20	1	26106-080162	BOLT, M8X 16 PLATED	1							
21	1	26106-080202	BOLT, M8X 20 PLATED	3							
22	1	26106-080452	BOLT, M8X 45 PLATED	3							
23	1	26306-100002	NUT, M10	4							
24	1	124160-01751	CAP, FILLER	1							
25	1	24311-000320	O-RING, 1AP32.0	1							
26	1	129951-01740	COVER	1							
27	1	26106-080202	BOLT, M8X 20 PLATED	1							
28	1	26106-080452	BOLT, M8X 45 PLATED	5							
29	1	26106-080752	BOLT, M8X 75 PLATED	1							
30	1	121023-01551	COVER	1							
31	1	24341-000240	O-RING, 1AS24.0	1							
32	1	26106-060162	BOLT, M6X 16 PLATED	2							
33	1	729907-01590	COVER ASSY, GEAR CASE	1							
35	2	129916-01800	SEAL, OIL	1							
36	1	129900-01850	COVER ASSY, GEAR CASE	1							
37	2	129900-01870	SPONGE, GEAR CASE	1							
38	1	26106-080162	BOLT, M8X 16 PLATED	3							
39	1	26106-080402	BOLT, M8X 40 PLATED	5							
40	1	26106-080702	BOLT, M8X 70 PLATED	6							

Fig.3. FLYWHEEL HOUSING & OIL SUMP

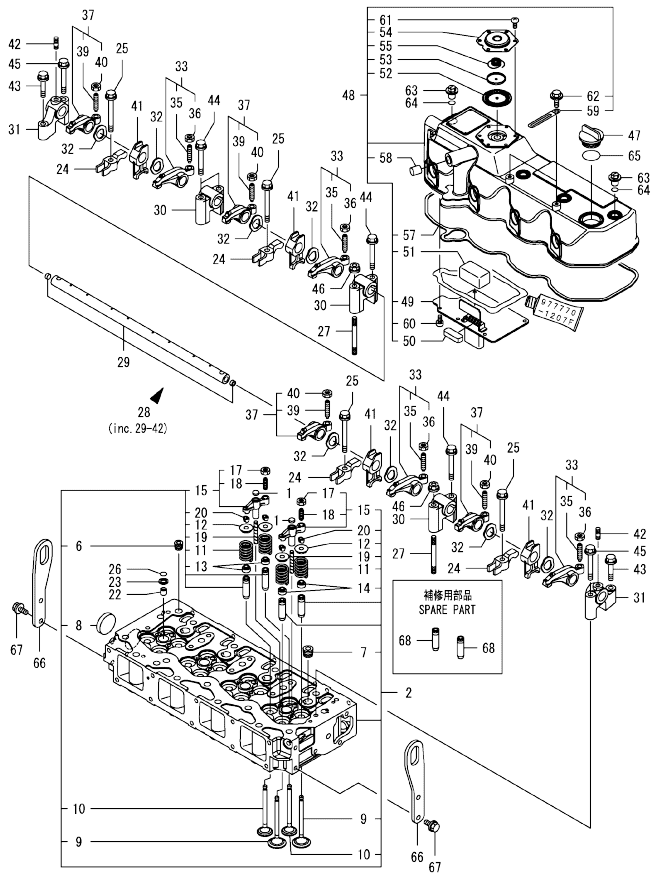


No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129100-01580	PIN, PARALLEL 8X16	2							
2	1	129900-01620	HOUSING, FLYWHEEL	1							
4	1	119620-01750	CAP	1							
5	1	26206-100352	BOLT, M10X 35 PLATED	9							
6	1	26206-100702	BOLT, M10X 70 PLATED	4							
7	1	129916-01790	SEAL, D115/95XT11	1							
8	1	129916-01710	OIL PAN ASSY	1							
9	2	119640-01640	PLUG, DRAIN M22	1							
11	2	22190-220002	WASHER, SEAL 22	1							
12	1	26106-080122	BOLT, M8X 12 PLATED	16							

Fig.4. CYLINDER HEAD & BONNET

(A)=4TNV98-ZPJLW
(B)=
(C)=

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

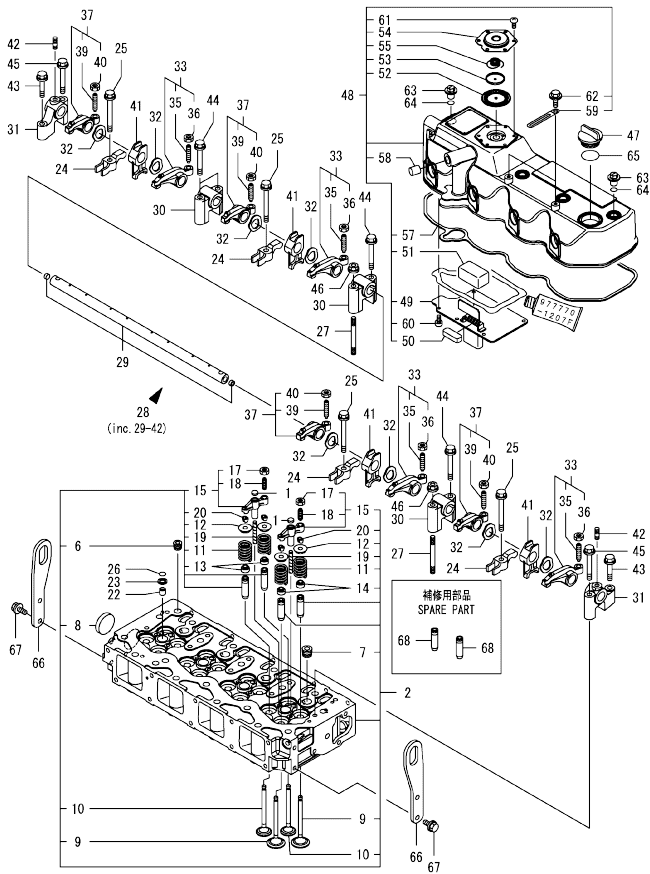


No.	Lev.	Parts No.	Description	(A)	(B)	(C)	(D)	(E)	(F)	I	R
1	1	123907-11550	SEAT, VALVE BRIDGE	8							
2	1	129927-11700	HEAD ASSY, CYLINDER	1							
6	2	23876-020000	PLUG, R02	1							
7	2	23876-030000	PLUG, R03	4							
8	2	27241-400000	PLUG, 40	1							
9	2	129907-11100	VALVE, SUCTION	8							
10	2	129907-11110	VALVE, EXHAUST	8							
11	2	129907-11120	SPRING, VALVE	16							
12	2	119620-11880	RETAINER, SPRING	16							
13	2	119803-11340	SEAL, VALVE STEM	8							
14	2	124160-11340	SEAL, VALVE STEM	8							
15	2	129907-11510	BRIDGE ASSY, VALVE	8							
17	3	129150-11750	NUT, M8	8							
18	3	123907-11830	ADJUSTER	8							
19	2	123907-11820	GUIDE, BRIDGE	8							
20	2	27310-070001	COTTER, 7	16							
22	1	119802-11870	PROTECTOR, NOZZLE	4							
23	1	119625-11880	SEAT, NOZZLE	4							
24	1	129907-11910	RETAINER, NOZZLE	4							
25	1	129907-11950	BOLT, M8X75	4							
26	1	24311-000120	O-RING, 1AP12.0	4							
27	1	119593-11301	BOLT, STUD M8X80	2							
28	1	129907-11341	SHAFT ASSY, ROCKER	1							
29	2	129907-11250	SHAFT, ROCKER ARM	1							
30	2	129907-11260	SUPPORT, ROCKER ARM	3							
31	2	129907-11270	SUPPORT, ROCKER ARM	2							
32	2	123907-11280	WASHER	8							
33	2	129907-11650	ARM ASSY, ROCKER	4							
35	3	129150-11230	SCREW, VALVE ADJUST	4							
36	3	129150-11750	NUT, M8	4							
37	2	129907-11660	ARM ASSY, ROCKER	4							
39	3	129150-11230	SCREW, VALVE ADJUST	4							
40	3	129150-11750	NUT, M8	4							
41	2	129907-11920	RETAINER, NOZZLE	4							
42	2	26226-080222	STUD, M8X 22	2							
43	1	26106-080402	BOLT, M8X 40 PLATED	2							
44	1	26106-080602	BOLT, M8X 60 PLATED	4							
45	1	26106-080602	BOLT, M8X 60 PLATED	2							
46	1	26306-080002	NUT, M8	2							
47	1	124160-01751	CAP, FILLER	1							
48	1	129927-11320	BONNET ASSY, HEAD	1							
49	2	129907-03011	PLATE, BAFFLE	1							
50	2	129907-03061	BAFFLE, BREATHER	1							
51	2	129907-03070	BAFFLE, BREATHER	1							
52	2	123907-03100	DIAPHRAGM	1							
53	2	123907-03110	PLATE	1							
54	2	123907-03120	PLATE, BREATHER	1							
55	2	123907-03140	SPRING, DIAPHRAGM	1							
57	2	129933-11310	GASKET, BONNET	1							
58	2	119640-61400	PLUG	1							
59	2	175339-79700	CLIP	2							

Remarks
(1)Spare part.

N:Old $\frac{New}{Old}$ New, Q:Old $\frac{New}{Old}$ New, R:Old $\frac{New}{Old}$ New, S:Old $\frac{New}{Old}$ New, W:Add, Z:Discontinued, F:Interchangeable by set, K:Qty Change
++ CONTINUE ++
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Fig.4. CYLINDER HEAD & BONNET



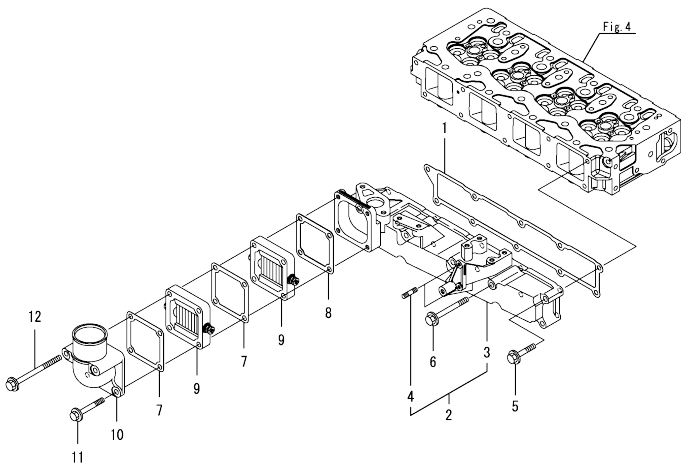
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(B)=
(C)=

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

No.	Lev.	Parts No.	Description	(A)	(B)	(C)	(D)	(E)	(F)	I	R
60	2	22857-500100	SCREW, 5X10	6							
61	2	22857-500100	SCREW, 5X10	6							
62	2	26106-060122	BOLT, M6X 12 PLATED	2							
63	1	124160-11360	KNOB	4							
64	1	24311-000120	O-RING, 1AP12.0	4							
65	1	24311-000320	O-RING, 1AP32.0	1							
66	1	129907-07900	LIFTER, ENGINE	2							
67	1	26106-080162	BOLT, M8X 16 PLATED	4							
68	1	129907-11800	GUIDE, VALVE	16							1

Remarks
(1)Spare part.

Fig.5. SUCTION MANIFOLD

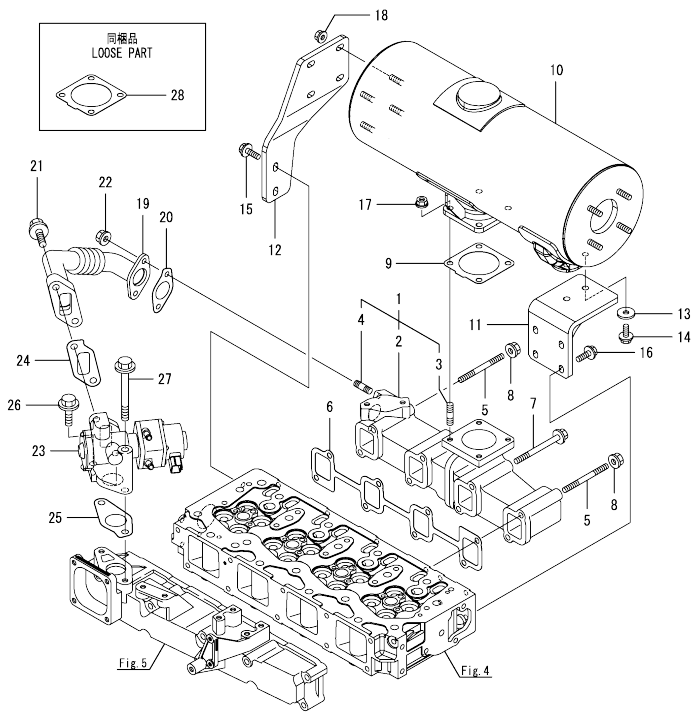


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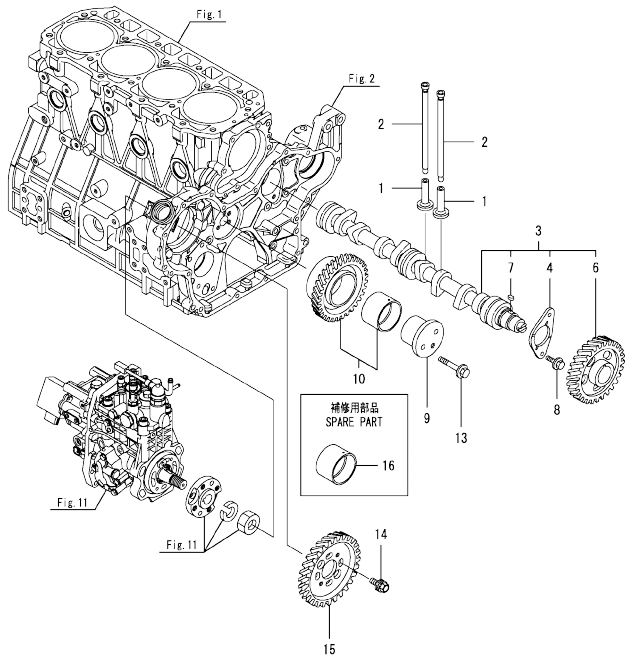
No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129907-12110	GASKET, MANIFOLD	1							
2	1	129927-12150	MANIFOLD ASSY,INTAKE	1							
3	2	129927-12100	MANIFOLD, AIR INTAKE	1							
4	2	26216-060202	STUD, M6X 20	2							
5	1	26106-080452	BOLT, M8X 45 PLATED	6							
6	1	26106-080802	BOLT, M8X 80 PLATED	4							
7	1	119129-77020	GASKET	2							
8	1	121850-77021	GASKET, AIR HEATER	1							
9	1	119005-77051	HEATER, AIR	2							
10	1	119129-77520	BEND	1							
11	1	26106-080602	BOLT, M8X 60 PLATED	2							
12	1	26106-081102	BOLT, M8X110 PLATED	2							

Fig.6. EXHAUST MANIFOLD & SILENCER



No.	Lev.	Parts No.	Description	Qty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129927-13150	MANIFOLD ASSY, EXH.	1							
2	2	129927-13101	MANIFOLD, EXHAUST	1							
3	2	119131-18320	BOLT, STUD M8X22	4							
4	2	129418-18320	BOLT, STUD M8X20	2							
5	1	129263-13210	BOLT, STUD M8X90	2							
6	1	129900-13251	GASKET, EXH.MANIFOLD	1							
7	1	119802-13680	BOLT, M8X90 10.9T	6							
8	1	26306-080002	NUT, M8	2							
9	1	129930-13201	GASKET, SILENCER	1							
10	1	129938-13520	SILENCER	1							
11	1	129944-13660	STAY, SILENCER	1							
12	1	129938-13670	STAY, SILENCER	1							
13	1	22157-080000	WASHER, 8	2							
14	1	26106-080162	BOLT, M8X 16 PLATED	2							
15	1	26106-080202	BOLT, M8X 20 PLATED	2							
16	1	26106-080202	BOLT, M8X 20 PLATED	4							
17	1	26306-080002	NUT, M8	4							
18	1	26306-080002	NUT, M8	4							
19	1	129927-13800	PIPE ASSY, EGR	1							
20	1	129927-13810	GASKET	1							
21	1	26106-100302	BOLT, M10X 30 PLATED	2							
22	1	26306-080002	NUT, M8	2							
23	1	129928-13900	VALVE, EGR	1							
24	1	129927-13910	GASKET, EGR	1							
25	1	129927-13920	GASKET, EGR	1							
26	1	26106-100302	BOLT, M10X 30 PLATED	1							
27	1	26106-100952	BOLT, M10X 95 PLATED	1							
28	1	129930-13201	GASKET, SILENCER	1							

Fig.7. CAMSHAFT & DRIVING GEAR



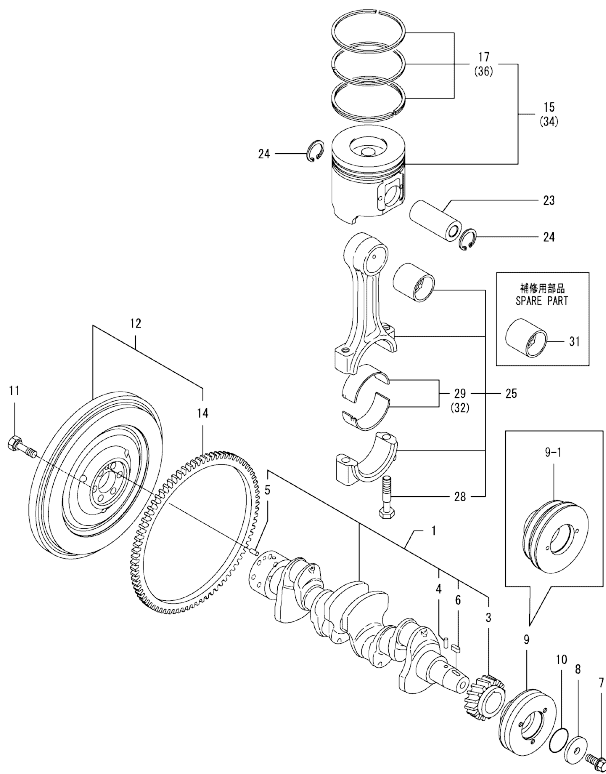
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(B)=
(C)=

(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	129907-14400	PUSH-ROD	8							
3	1	129908-14581	CAMSHAFT ASSY	1							
4	2	129150-02450	BEARING, THRUST	1							
6	2	129900-14100	GEAR, CAMSHAFT	1							
7	2	22512-070140	KEY, 7X 14	1							
8	1	26106-080162	BOLT, M8X 16 PLATED	2							
9	1	123900-25060	SHAFT, IDLE GEAR	1							
10	1	129900-25100	GEAR ASSY, IDLE	1							
13	1	26106-080552	BOLT, M8X 55 PLATED	3							
14	1	129953-25300	BOLT	4							
15	1	129907-25900	GEAR, PUMP	1							
16	1	129150-25920	BUSH, IDLE GEAR	1							1

Remarks
(1)Spare part.

Fig.8. CRANKSHAFT & PISTON



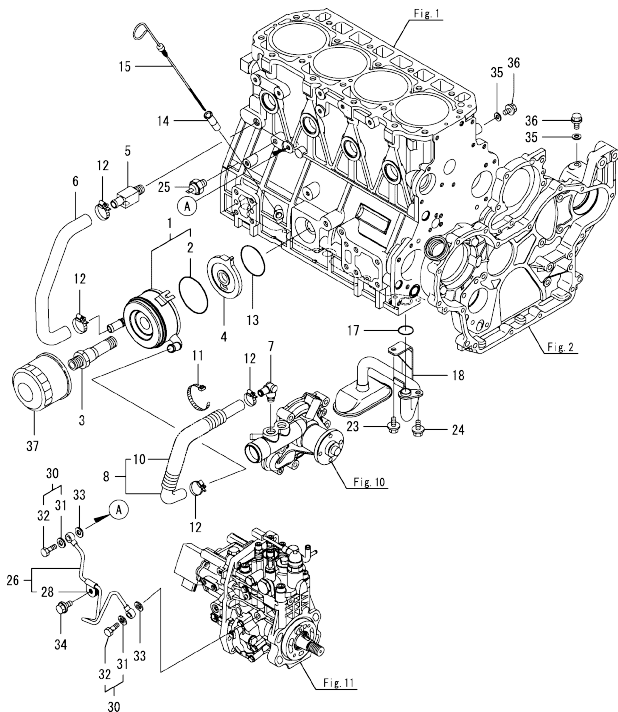
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(B)=
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129902-21000	CRANKSHAFT ASSY	1							
3	2	129900-21200	GEAR, CRANKSHAFT	1							
4	2	121850-21290	PIN	1							
5	2	121850-21920	PIN, PARALLEL 10X22	1							
6	2	22512-070140	KEY, 7X 14	1							
7	1	129916-21610	BOLT	1							
8	1	129960-21640	WASHER	1							
8-1	1	129960-21940 (A=EP5100)	WASHER, V-PULLEY	1							F 4
9	1	129907-21650	V-PULLEY, CRANK 130	1							
9-1	1	129916-21680 (A=EP6311)	V-PULLEY, CRANKSHAFT	1							R
9-2	1	129933-21630 (A=EW3379)	V-PULLEY, CRANKSHAFT	1							N
10	1	24341-000530	O-RING, 1AS53.0	1							
10-1	1	129960-21930 (A=EP5100)	GASKET, WASHER	1							F 4
11	1	121850-21130	BOLT, FLYWHEEL	6							
12	1	129907-21580	FLYWHEEL ASSY	1							
14	2	129900-21600	GEAR, RING	1							
15	1	129927-22080	PISTON ASSY	4							
17	2	129927-22050	RING SET, PISTON	4							
23	1	120130-22301	PIN, PISTON	4							
24	1	22252-000300	RING, 30	8							
25	1	129900-23001	ROD ASSY, CONNECTING	4							
28	2	129900-23200	BOLT, CONNECTING ROD	8							
29	2	129900-23601	BEARING, CRANK PIN	4							
31	1	129900-23911	BEARING, PISTON PIN	4							1
32	1	129900-23611	BEARING ASSY, 0.25US	4							2
34	1	729927-22900	PISTON ASSY, 0.25 OS	4							3
36	2	729927-22950	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.
 (4) Interchangeable by simultaneous replacement with Ref.8-1,10-1.

Fig.9. LUB. OIL SYSTEM



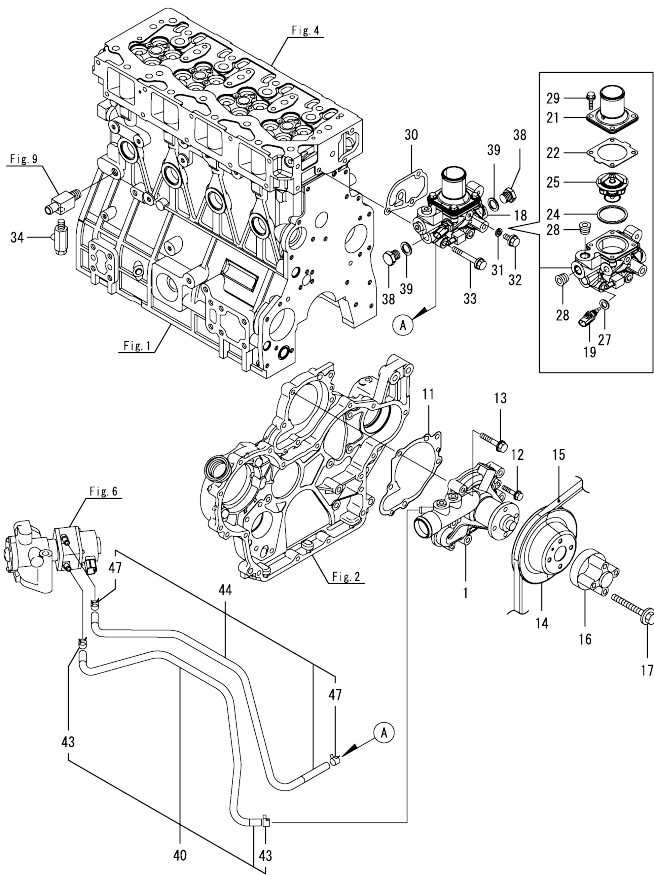
(A)=4TNV98-ZPJLW
(B)=
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129908-33010	COOLER ASSY, OIL	1							
2	2	123912-33050	O-RING	1							
3	1	123912-33100	BOLT, COOLER	1							
4	1	129908-33101	BRACKET, OIL COOLER	1							
5	1	129006-44480	JOINT	1							
6	1	129908-49060	HOSE, WATER	1							
7	1	129466-49300	ELBOW, PT3/8	1							
8	1	123910-49600	HOSE ASSY WATER	1							
10	2	123910-49610	TUBE, CORRUGATED	1							
11	1	121750-59890	BAND, NYLON	1							Z
(A=EN1638)											
12	1	23000-025000	CLAMP, PIPE	4							
13	1	24321-000600	O-RING, 1AG60.0	1							
14	1	121520-34810	GUIDE, DIPSTICK	1							
15	1	129953-34830	DIPSTICK	1							
17	1	129900-32030	O-RING, P20	1							
18	1	129953-35000	PIPE ASSY, OIL INLET	1							
23	1	26106-080122	BOLT, M8X 12 PLATED	1							
24	1	26106-080162	BOLT, M8X 16 PLATED	1							
25	1	119761-39450	SWITCH, HYDRAULIC	1							
26	1	129927-39060	PIPE ASSY, OIL	1							
28	2	123907-39500	RETAINER, PIPE	1							
30	1	129005-59830	BOLT ASSY, JOINT M8	2							
31	2	22190-080002	WASHER, SEAL 6	2							
32	2	23857-030000	BOLT, JOINT 3	2							
33	1	22190-080002	WASHER, SEAL 6	2							
34	1	26106-080122	BOLT, M8X 12 PLATED	1							
35	1	22190-080002	WASHER, SEAL 6	2							
36	1	26106-080122	BOLT, M8X 12 PLATED	2							
37	1	129150-35153	FILTER ASSY, D80X80L	1							1

Remarks
(1)Spare part.

Fig.10. COOLING WATER SYSTEM



(A)=4TNV98-ZPJLW
(B)=
(C)=

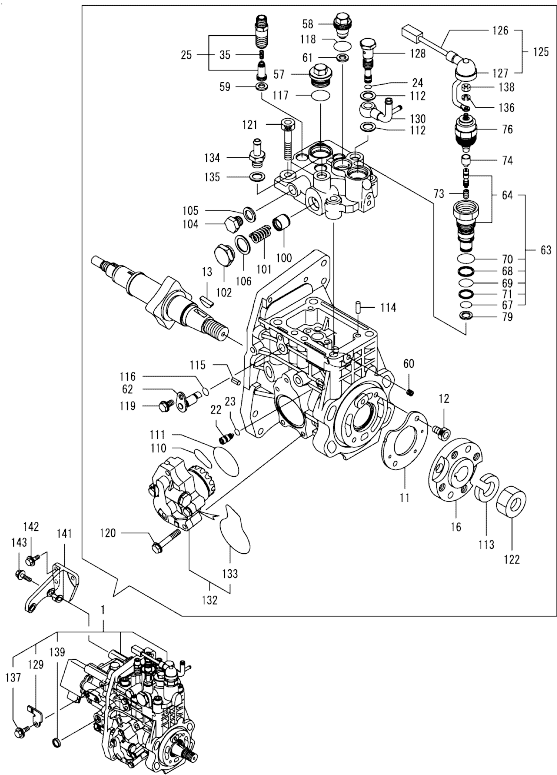
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(E)=
(F)=

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129927-42000	PUMP ASSY, WATER	1							
11	1	129900-42020	GASKET, WATER PUMP	1							
12	1	26106-060302	BOLT, M6X 30 PLATED	2							
13	1	26106-080552	BOLT, M8X 55 PLATED	5							
14	1	129930-42400	V-PULLEY, C.W.PUMP	1							
14-1	1	129E23-42410	V-PULLEY, WATER PUMP	1							N
(A=EW3379)											
15	1	25152-004300	V-BELT, A43	1							
15-2	1	25152-004500	V-BELT, A45	1							N
(A=EW3379)											
16	1	129973-44760	SPACER, FAN 50	1							
17	1	26106-080652	BOLT, M8X 65 PLATED	4							
18	1	129938-49800	CASE ASSY, THERMOSTAT	1							
19	2	129927-44900	SENSOR, WATER TEMP.	1							
21	2	129916-49530	COVER, THERMOSTAT	1							
22	2	121850-49540	GASKET, THERMOSTAT	1							
24	2	121850-49550	GASKET, THERMOSTAT	1							
25	2	121850-49801	THERMOSTAT, 82C	1							
27	2	22190-120002	WASHER, SEAL 12	1							
28	2	23875-030000	PLUG, R03	2							
29	2	26106-060202	BOLT, M6X 20 PLATED	4							
30	1	129900-49870	GASKET, THERMOSTAT	1							
31	1	23414-080000	GASKET, 8X1.0	1							
32	1	26106-080122	BOLT, M8X 12 PLATED	1							
33	1	26106-080602	BOLT, M8X 60 PLATED	3							
34	1	119620-49290	COCK ASSY, 1/4	1							
38	1	121450-42450	PLUG, M16	2							
39	1	124465-44950	GASKET, 16	2							
40	1	129927-49610	HOSE ASSY, WATER	1							
43	2	23080-012000	CLAMP, 12	2							
44	1	129927-49620	HOSE ASSY, WATER	1							
47	2	23080-012000	CLAMP, 12	2							

Fig.11. FUEL INJECTION PUMP

(A)=4TNV98-ZPJLW
(B)=
(C)=

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

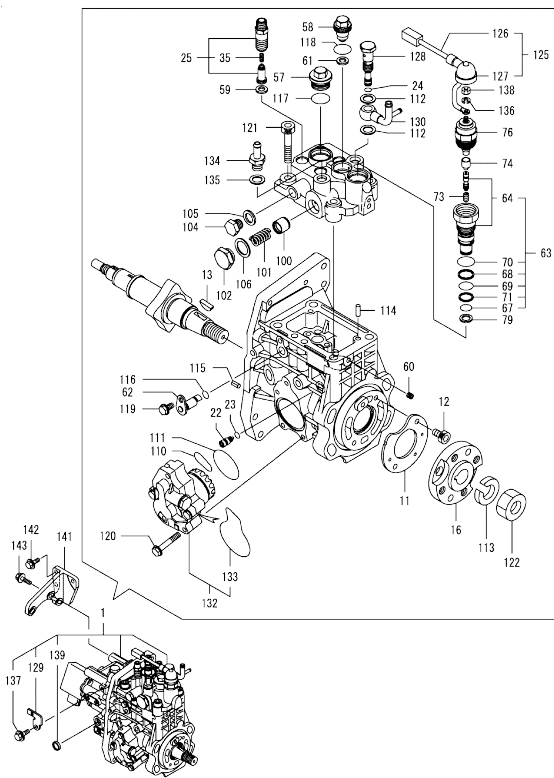


No.	Lev.	Parts No.	Description	(A)	(B)	(C)	(D)	(E)	(F)	Q'ty	I	R
1	1	729927-51320	PUMP ASSY, INJECTION	1								1
11	2	129928-51900	COVER	1								
12	2	129008-51920	BOLT, SOCKET M6X10	2								
13	2	144626-51090	FEATHER KEY, 5X19	1								
16	2	158563-51150	FLANGE	1								
22	2	158600-51270	STOPPER, TAPPET	1								
23	2	158563-51281	O-RING, 4D S6	1								
24	2	158563-51281	O-RING, 4D S6	1								
25	2	129927-51390	VALVE ASSY, DELIVERY	4								
35	3	158563-51330	SPRING, DELIVERY	4								
57	2	158601-51550	PLUG, M22	1								
58	2	129907-51560	PLUG, M16	1								
59	2	158552-51571	GASKET, PLUG	4								
60	2	158557-51570	PLUG, RACK	1								
61	2	129906-51580	GASKET, PLUG	1								
62	2	158552-51580	LIFTER, LINK	1								
63	2	129657-51590	TIMER ASSY	1								
64	3	129657-51600	TIMER ASSY	1								
67	3	158553-51670	O-RING	1								
68	3	119802-51680	RING, BACKUP	1								
69	3	119802-51690	O-RING	1								
70	3	24356-190200	O-RING, 4D19020	1								
71	3	24372-000150	RING, BACK UP T2P15	1								
73	2	119852-51630	SPRING, TIMER	1								
74	2	119852-51640	CAP, TIMER	1								
76	2	119852-51650	VALVE ASSY, SOLENOID	1								
79	2	158553-51680	GASKET, TIMER	1								
100	2	158601-51770	PISTON, ACCUMULATOR	1								
101	2	158552-51781	SPRING, ACCUMULATOR	1								
102	2	158601-51790	PLUG	1								
104	2	158553-51930	PLUG, M12	1								
105	2	22190-120002	WASHER, SEAL 12	1								
106	2	22190-180002	WASHER, SEAL 18	1								
110	2	158552-52311	O-RING	1								
111	2	158552-52400	O-RING, 4E S42	1								
112	2	22190-120002	WASHER, SEAL 12	2								
113	2	22217-180000	WASHER, SPRING 18	1								
114	2	22312-050140	PIN, PARALLEL M5X14	2								
115	2	22351-050010	PIN, SPRING 5.0X10	2								
116	2	24311-000070	O-RING, 1AP7.0	1								
117	2	24356-190200	O-RING, 4D19020	1								
118	2	24356-240210	O-RING, 4D24021	1								
119	2	26106-060102	BOLT, M6X 10 PLATED	1								
120	2	26106-060352	BOLT, M6X 35 PLATED	4								
121	2	26450-100452	BOLT, M10X 45	4								
122	2	26776-180002	NUT, LOCK M18	1								
125	2	129927-51650	HARNES ASSY, WIRE	1								
126	3	129927-51660	HARNES	1								
127	3	129263-77941	CAP, RUBBER	1								
128	2	158601-51650	JOINT, OVER FLOW	1								
129	2	129927-51670	BRACKET	1								

Remarks

(1)Governor(Fig.12)is incorporated in this Fuel Injection Pump (Ref.1).
(1)Eco Pump
Make sure to update the engines ECU information when replacing the Eco Pump.
Failing to do so will result in engine malfunction.

Fig.11. FUEL INJECTION PUMP



(A)=4TNV98-ZPJLW
(B)=
(C)=

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

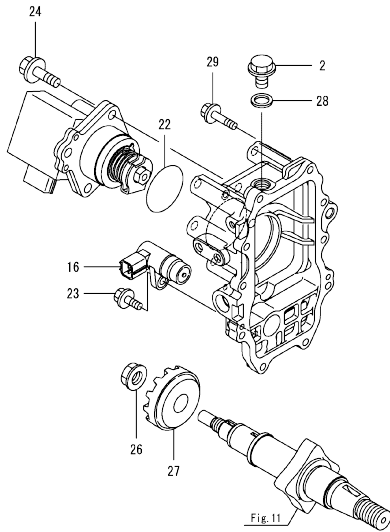
No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
130	2	158552-51670	JOINT, OVER FLOW	1							
132	2	158552-52100	PUMP ASSY, FUEL FEED	1							
133	3	158552-52500	O-RING	1							
134	2	119934-59910	JOINT, PIPE	1							
135	2	22190-120002	WASHER, SEAL 12	1							
136	2	22217-050000	WASHER, SPRING 5	1							
137	2	26106-060122	BOLT, M6X 12 PLATED	1							
138	2	26716-050002	NUT, M5	1							
139	2	27241-160000	PLUG, 16	1							
141	1	129927-51250	RETAINER, PUMP	1							
142	1	26106-080202	BOLT, M8X 20 PLATED	3							
143	1	26106-080302	BOLT, M8X 30 PLATED	3							

Remarks

(1)Governor(Fig.12)is incorporated in this Fuel Injection Pump (Ref.1).
(1)Eco Pump
Make sure to update the engines ECU information when replacing the Eco Pump.
Failing to do so will result in engine malfunction.

0CW10-M77501 4TNV98-ZPJLW
 Fig.12. GOVERNOR

0CW10-M77501 Fig.12



(A)=4TNV98-ZPJLW
 (B)=
 (C)=

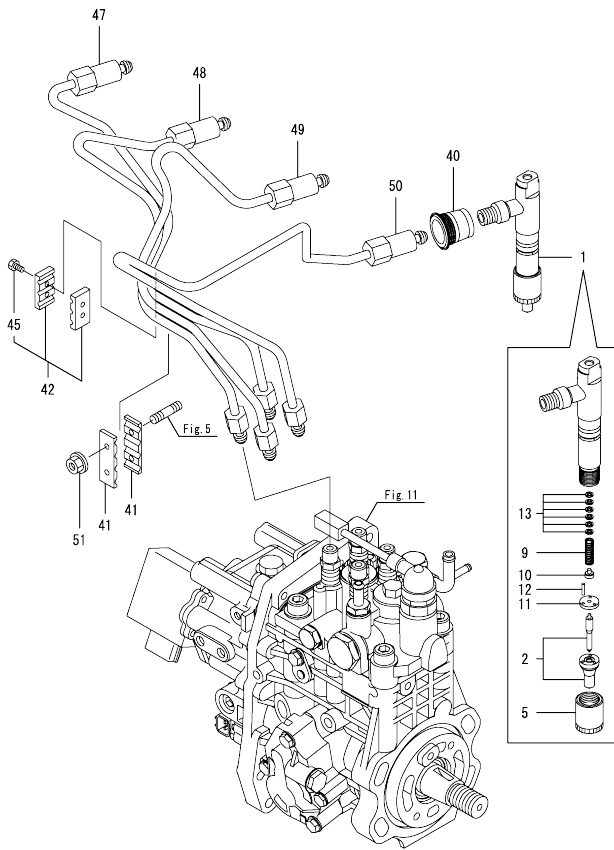
(D)=
 (E)=
 (F)=

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
2	2	158553-51930	PLUG, M12	1							
16	2	158557-61720	SENSOR	1							
22	2	24341-000480	O-RING, 1AS48.0	1							
23	2	26106-060162	BOLT, M6X 16 PLATED	1							
24	2	26106-080252	BOLT, M8X 25 PLATED	3							
26	2	129008-61301	NUT	1							
27	2	158553-61780	GEAR, SENSOR	1							
28	2	22190-120002	WASHER, SEAL 12	1							
29	2	26106-060252	BOLT, M6X 25 PLATED	10							

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

N:Old $\frac{New}{Old}$ New. Q:Old $\frac{New}{Old}$ New. R:Old $\frac{New}{Old}$ New. S:Old $\frac{New}{Old}$ New. W:Add. Z:Discontinued. F:Interchangeable by set. K:Q'ty Change
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Fig.13. FUEL INJECTION VALVE

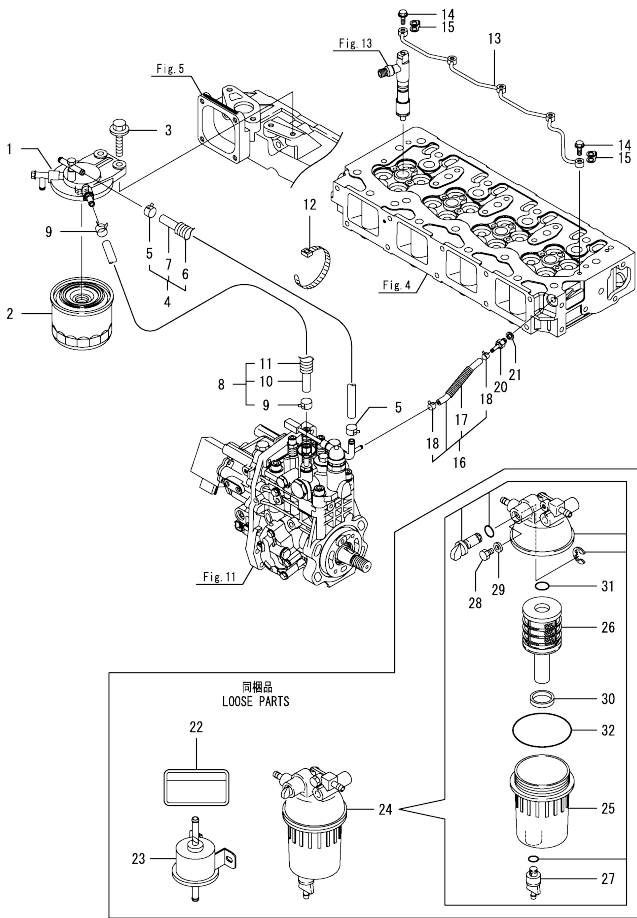


(A)=4TNV98-ZPJLW
(B)=
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty					
				(A)	(B)	(C)	(D)	(E)	(F)
1	1	729927-53100	FUEL INJECTOR ASSY	4					
2	2	129927-53000	NOZZLE ASSY, F.I.	4					
5	2	114250-53080	NUT, NOZZLE	4					
9	2	114250-53120	SPRING, NOZZLE	4					
10	2	114250-53130	SEAT, SPRING	4					
11	2	114250-53140	SPACER	4					
12	2	114250-53210	PIN	8					
13	2	119803-53400	SHIM SET	4					
40	1	123907-11601	SEAL, PIPE	4					
41	1	123472-59120	RETAINER, PIPE	2					
42	1	129150-59120	RETAINER, PIPE	1					
45	2	129150-59131	BOLT, M4X14	2					
47	1	129927-59810	PIPE ASSY, INJECTION	1					
48	1	129927-59820	PIPE ASSY, INJECTION	1					
49	1	129927-59830	PIPE ASSY, INJECTION	1					
50	1	129927-59840	PIPE ASSY, INJECTION	1					
51	1	26366-060002	NUT, M6	2					

Fig.14. FUEL LINE



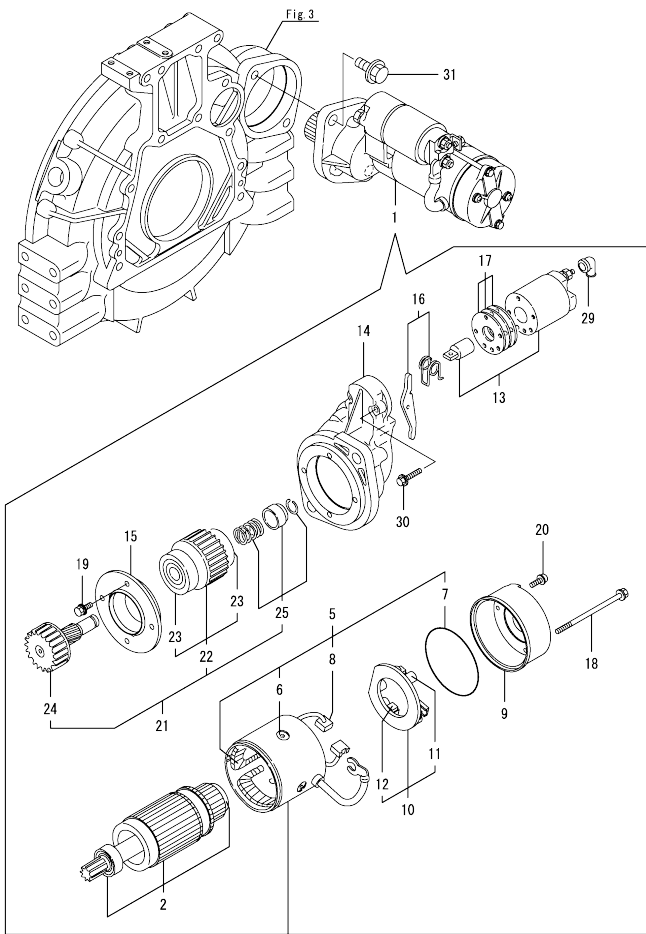
(A)=4TNV98-ZPJLW
(B)=
(C)=

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

No.	Lev.	Parts No.	Description	Qty						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	129457-59010	HOSE ASSY, FUEL	1								
5	2	124766-59050	CLAMP, HOSE 11.5	2								
6	2	129957-59120	TUBE, CORRUGATED 15	1								
7	2	105025-59750	HOSE, FUEL	1								
8	1	129961-59310	HOSE ASSY, FUEL	1								
9	2	124766-59050	CLAMP, HOSE 11.5	2								
10	2	129136-59110	HOSE, D13/7.5X270	1								
11	2	129961-59110	TUBE, CORRUGATED 15	1								
12	1	121750-59890	BAND, NYLON	1								
13	1	129907-59140	PIPE ASSY, RETURN	1								
14	1	123907-59540	BOLT, PIPE JOINT M6	5								
15	1	123907-59550	GASKET	5								
16	1	129927-59550	HOSE ASSY RETURN	1								
17	2	129263-49750	TUBE, CORRUGATED	1								
18	2	124722-59050	CLAMP, HOSE 9	2								
20	1	123907-59560	JOINT, HOSE	1								
21	1	22190-080002	WASHER, SEAL 6	1								
22	1	114110-07761	LABEL, FUEL OIL CAUT	1								
23	1	129612-52100	PUMP, FUEL FEED	1								
24	1	129242-55701	SEPARATOR ASSY, WATER	1								
25	2	129242-55720	CUP, SEPARATOR	1								
26	2	129242-55730	ELEMENT, FUEL	1								
27	2	129242-55740	PLUG, DRAIN	1								
28	2	129242-55750	VALVE, AIR VENT	1								
29	2	129242-55760	GASKET, PLUG	1								
30	2	129242-55770	FLOAT	1								
31	2	24311-000160	O-RING, 1AP16.0	1								
32	2	24321-000750	O-RING, 1AG75.0	1								

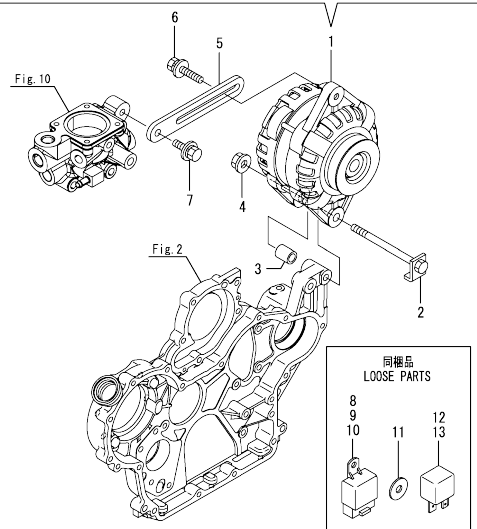
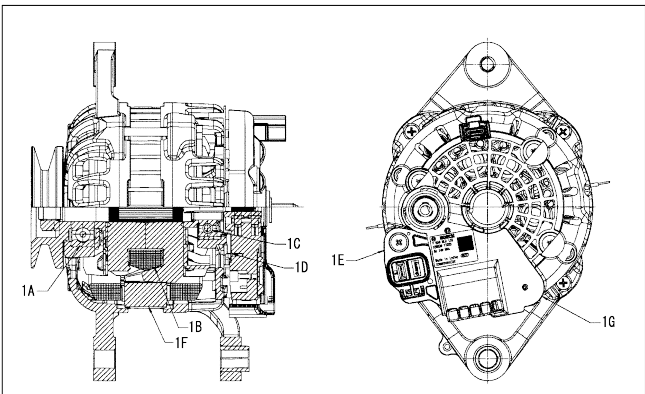
N:Old $\frac{100}{100}$ New, Q:Old $\frac{100}{100}$ New, R:Old $\frac{100}{100}$ New, S:Old $\frac{100}{100}$ New, W:Add, Z:Discontinued, F:Interchangeable by set, K:Qty Change
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Fig.15. STARTING MOTOR



No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129940-77011	STARTER ASSY	1							
2	2	129940-77100	ARMATURE ASSY	1							
5	2	129940-77130	COIL ASSY, FIELD	1							
6	3	129940-77140	SCREW, CORE SET	4							
7	3	129940-77150	O-RING	1							
8	3	129940-77160	BRUSH	2							
9	2	129940-77171	COVER	1							
10	2	129940-77181	HOLDER ASSY, BRUSH	1							
11	3	129940-77190	SPRING, BRUSH	1							
12	3	129940-77200	BRUSH	2							
13	2	129940-77210	SWITCH ASSY, MAGNET	1							
14	2	129940-77221	CASE, GEAR	1							
15	2	129940-77230	RETAINER, BEARING	1							
16	2	129940-77240	LEVER SET	1							
17	2	129940-77250	COVER KIT, DUST	1							
18	2	129940-77260	BOLT, THROUGH	2							
19	2	129940-77270	BOLT	4							
20	2	129940-77280	SCREW	2							
21	2	123900-77510	PINION ASSY	1							
22	3	123900-77520	CLUTCH ASSY	1							
23	4	X2240610100	BEARING, BALL	2							
24	3	123900-77540	SHAFT, PINION	1							
25	3	119131-77550	STOPPER SET, PINION	1							
29	2	121254-77810	COVER, TERMINAL	1							
30	2	114371-79070	BOLT	2							
31	1	26106-120252	BOLT, M12X 25 PLATED	2							

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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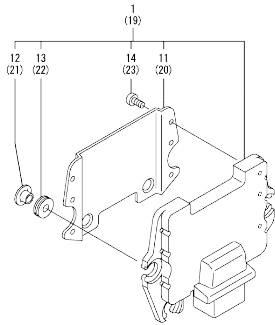


(A)=4TNV98-ZPJLW
 (B)=
 (C)=

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

No.	Lev.	Parts No.	Description	Qty						I	R	
				(A)	(B)	(C)	(D)	(E)	(F)			
1	1	129908-77200	ALTERNATOR	1								
1A	2	129908-77710	BEARING, BALL FR	1								
1B	2	129908-77720	ROTOR	1								
1C	2	129908-77730	BEARING, BALL RR	1								
1D	2	129908-77740	RECTIFIER	1								
1E	2	129908-77750	REGULATOR	1								
1F	2	129908-77760	STATOR	1								
1G	2	129908-77770	PROTECTOR	1								
2	1	129908-77220	BOLT, STOPPER M10	1								
3	1	129908-77360	PIECE, DISTANCE	1								
4	1	26306-100002	NUT, M10	1								
5	1	129988-77330	ADJUSTER, BELT	1								
6	1	119810-77340	BOLT, ADJUST L=30	1								
7	1	26014-080252	BOLT, M8X 25	1								
8	1	198461-52950	RELAY, CA TYPE C	1								
9	1	198461-52950	RELAY, CA TYPE C	1								
10	1	198461-52950	RELAY, CA TYPE C	1								
11	1	129927-77690	WASHER, ECU	3								
12	1	129927-77920	RELAY, ISO 70A	1								
13	1	129927-77920	RELAY, ISO 70A	1								

Fig.17. ELECTRONIC CONTROL UNIT (ECU)



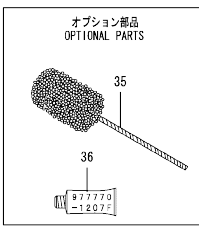
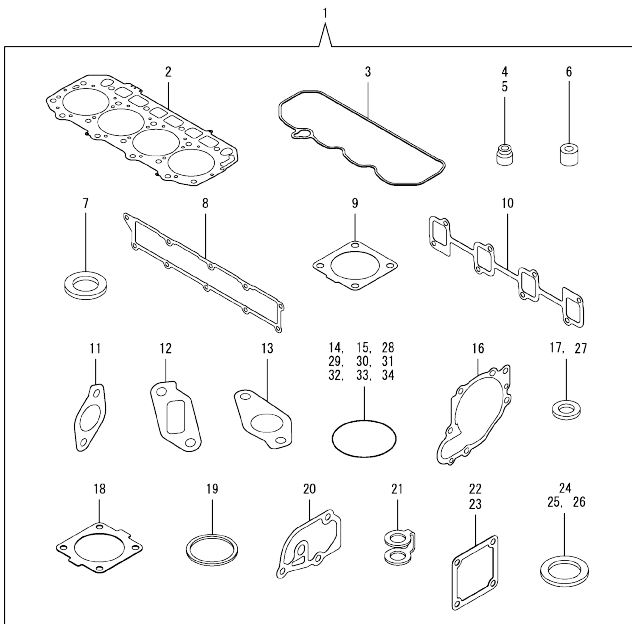
(A)=4TNV98-ZPJLW
(B)=
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129922-75060	ECU ASSY	1							1
11	2	129927-77600	SHIELD, ECU	1							
12	2	129927-77680	COLLAR, CONTROL	3							
13	2	119578-91351	ABSORBER	3							
14	2	22877-500080	SCREW, 5X 8	6							
19	1	129927-75900	ECU ASSY, SERVICE	1							2
20	2	129927-77600	SHIELD, ECU	1							
21	2	129927-77680	COLLAR, CONTROL	3							
22	2	119578-91351	ABSORBER	3							
23	2	22877-500080	SCREW, 5X 8	6							

Remarks
(1)Eco ECU
This part cannot be ordered.
Replace the part using a Service ECU with the proper engine information installed.
(2)Service ECU
If the proper information is not installed, the engine will not operate.
To install proper information, go to an authorized Distributor.

Fig.18. GASKET SET



(A)=4TNV98-ZPJLW
(B)=
(C)=

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

No.	Lev.	Parts No.	Description	Qty						I	R	
				(A)	(B)	(C)	(D)	(E)	(F)			
1	1	129922-92610	GASKET KIT	1							1	
2	2	129907-01331	GASKET, HEAD	1								
3	2	129933-11310	GASKET, BONNET	1								
4	2	119803-11340	SEAL, VALVE STEM	8								
5	2	124160-11340	SEAL, VALVE STEM	8								
6	2	119802-11870	PROTECTOR, NOZZLE	4								
7	2	119625-11880	SEAT, NOZZLE	4								
8	2	129907-12110	GASKET, MANIFOLD	1								
9	2	129930-13201	GASKET, SILENCER	2								
10	2	129900-13251	GASKET, EXH.MANIFOLD	1								
11	2	129927-13810	GASKET	1								
12	2	129927-13910	GASKET, EGR	1								
13	2	129927-13920	GASKET, EGR	1								
14	2	129900-32030	O-RING, P20	2								
15	2	129900-32040	O-RING, P14	1								
16	2	129900-42020	GASKET, WATER PUMP	1								
17	2	124465-44950	GASKET, 16	2								
18	2	121850-49540	GASKET, THERMOSTAT	1								
19	2	121850-49550	GASKET, THERMOSTAT	1								
20	2	129900-49870	GASKET, THERMOSTAT	1								
21	2	123907-59550	GASKET	5								
22	2	119129-77020	GASKET	2								
23	2	121850-77021	GASKET, AIR HEATER	1								
24	2	22190-080002	WASHER, SEAL 6	7								
25	2	22190-120002	WASHER, SEAL 12	1								
26	2	22190-220002	WASHER, SEAL 22	1								
27	2	23414-080000	GASKET, 8X1.0	1								
28	2	24311-000070	O-RING, 1AP7.0	1								
29	2	24311-000120	O-RING, 1AP12.0	8								
30	2	24311-000320	O-RING, 1AP32.0	2								
31	2	24321-000600	O-RING, 1AG60.0	1								
32	2	24341-000240	O-RING, 1AS24.0	1								
33	2	24341-000530	O-RING, 1AS53.0	1								
34	2	24351-030750	O-RING, 1A3075	1								
35	1	129400-92450	HONE, FLEX	1								1
36	1	977770-1207F	GASKET.LIQUID	1								1

Remarks

(1)Optional parts.

Parts No. Index

Parts No.	Fig. No.	Ref. No.
105025-59750	14	7
114110-07761	14	22
114250-53080	13	5
114250-53120	13	9
114250-53130	13	10
114250-53140	13	11
114250-53210	13	12
114371-79070	15	30
119005-77051	5	9
119129-77020	5	7
	18	22
119129-77520	5	10
119131-18320	6	3
119131-77550	15	25
119578-91351	17	13
	22	
119593-11301	4	27
119620-01750	3	4
119620-11180	4	12
119620-49290	10	34
119625-11880	4	23
	18	7
119640-01640	3	9
119640-61400	4	58
119761-39450	9	25
119802-11870	4	22
	18	6
119802-13680	6	7
119802-51680	11	68
119802-51690	11	69
119802-55801	14	2
119803-11340	4	13
	18	4
119803-53400	13	13
119810-77340	16	6
119852-51630	11	73
119852-51640	11	74
119852-51650	11	76
119934-59910	11	134
120130-22301	8	23
121023-01551	2	30
121254-77810	15	29
121450-42450	10	38
121520-34810	9	14
121750-59890	9	11
	14	12
121850-21130	8	11
121850-21290	8	4
121850-21920	8	5
121850-49540	10	22

Parts No.	Fig. No.	Ref. No.
121850-49540	18	18
121850-49550	10	24
	18	19
121850-49801	10	25
121850-77021	5	8
	18	23
123472-59120	13	41
123900-25060	7	9
123900-77510	15	21
123900-77520	15	22
123900-77540	15	24
123907-03100	4	52
123907-03110	4	53
123907-03120	4	54
123907-03140	4	55
123907-11280	4	32
123907-11550	4	1
123907-11601	13	40
123907-11820	4	19
123907-11830	4	18
123907-39500	9	28
123907-59540	14	14
123907-59550	14	15
	18	21
123907-59560	14	20
123910-49600	9	8
123910-49610	9	10
123912-33050	9	2
123912-33100	9	3
124160-01751	2	24
	4	47
124160-11340	4	14
	18	5
124160-11360	4	63
124465-44950	10	39
	18	17
124722-59050	14	18
124766-59050	14	5
	9	
129004-55612	14	1
129005-59830	9	30
129006-44480	9	5
129008-51920	11	12
129008-61301	12	26
129100-01580	2	1
	3	1
129136-59110	14	10
129150-02450	7	4
129150-11230	4	35
	39	

Parts No.	Fig. No.	Ref. No.
129150-11750	4	17
		36
		40
129150-14200	7	1
129150-25920	7	16
129150-35153	9	37
129150-59120	13	42
129150-59131	13	45
129242-55701	14	24
129242-55720	14	25
129242-55730	14	26
129242-55740	14	27
129242-55750	14	28
129242-55760	14	29
129242-55770	14	30
129263-13210	6	5
129263-49750	14	17
129263-77941	11	127
129400-92450	18	35
129418-18320	6	4
129457-59010	14	4
129466-49300	9	7
129612-52100	14	23
129657-51590	11	63
129657-51600	11	64
129900-01200	1	27
129900-01250	1	4
129900-01620	3	2
129900-01850	2	36
129900-01870	2	37
129900-02020	1	6
129900-02341	1	32
129900-02410	1	9
129900-02931	1	24
129900-02941	1	35
129900-13251	6	6
	18	10
129900-14100	7	6
129900-21200	8	3
129900-21600	8	14
129900-23001	8	25
129900-23200	8	28
129900-23601	8	29
129900-23611	8	32
129900-23911	8	31
129900-25100	7	10
129900-32001	2	4
129900-32030	2	16
	9	17
	18	14

Parts No.	Fig. No.	Ref. No.
129900-32040	2	17
	18	15
129900-42020	10	11
	18	16
129900-49870	10	30
	18	20
129902-21000	8	1
129906-51580	11	61
129907-01331	1	28
	18	2
129907-03011	4	49
129907-03061	4	50
129907-03070	4	51
129907-07900	4	66
129907-11100	4	9
129907-11110	4	10
129907-11120	4	11
129907-11250	4	29
129907-11260	4	30
129907-11270	4	31
129907-11341	4	28
129907-11510	4	15
129907-11650	4	33
129907-11660	4	37
129907-11800	4	68
129907-11910	4	24
129907-11920	4	41
129907-11950	4	25
129907-12110	5	1
	18	8
129907-14400	7	2
129907-21580	8	12
129907-21650	8	9
129907-25900	7	15
129907-51560	11	58
129907-59140	14	13
129908-14581	7	3
129908-33010	9	1
129908-33101	9	4
129908-49060	9	6
129908-77200	16	1
129908-77220	16	2
129908-77360	16	3
129908-77710	16	1 A
129908-77720	16	1 B
129908-77730	16	1 C
129908-77740	16	1 D
129908-77750	16	1 E
129908-77760	16	1 F
129908-77770	16	1 G

Parts No. Index

Parts No.	Fig. No.	Ref. No.
129916-01710	3	8
129916-01790	3	7
129916-01800	2	35
129916-21610	8	7
129916-21680	8	9 -1
129916-49530	10	21
129922-75060	17	1
129922-92610	18	1
129927-11320	4	48
129927-11700	4	2
129927-12100	5	3
129927-12150	5	2
129927-13101	6	2
129927-13150	6	1
129927-13800	6	19
129927-13810	6	20
	18	11
129927-13910	6	24
	18	12
129927-13920	6	25
	18	13
129927-22050	8	17
129927-22080	8	15
129927-39060	9	26
129927-42000	10	1
129927-42140	2	17 A
129927-44900	10	19
129927-49610	10	40
129927-49620	10	44
129927-51250	11	141
129927-51390	11	25
129927-51650	11	125
129927-51660	11	126
129927-51670	11	129
129927-53000	13	2
129927-59550	14	16
129927-59810	13	47
129927-59820	13	48
129927-59830	13	49
129927-59840	13	50
129927-75900	17	19
129927-77600	17	11
		20
129927-77680	17	12
		21
129927-77690	16	11
129927-77920	16	12
		13
129928-13900	6	23
129928-51900	11	11

Parts No.	Fig. No.	Ref. No.
129930-13201	6	9
		28
	18	9
129930-42400	10	14
129933-11310	4	57
	18	3
129933-21630	8	9 -2
129938-13520	6	10
129938-13670	6	12
129938-49800	10	18
129940-77011	15	1
129940-77100	15	2
129940-77130	15	5
129940-77140	15	6
129940-77150	15	7
129940-77160	15	8
129940-77171	15	9
129940-77181	15	10
129940-77190	15	11
129940-77200	15	12
129940-77210	15	13
129940-77221	15	14
129940-77230	15	15
129940-77240	15	16
129940-77250	15	17
129940-77260	15	18
129940-77270	15	19
129940-77280	15	20
129944-01500	2	3
129944-13660	6	11
129951-01740	2	26
129953-25300	7	14
129953-34830	9	15
129953-35000	9	18
129957-59120	14	6
129960-21640	8	8
129960-21930	8	10 -1
129960-21940	8	8 -1
129961-59110	14	11
129961-59310	14	8
129973-44760	10	16
129988-77330	16	5
129E23-42410	10	14 -1
144626-51090	11	13
158552-51571	11	59
158552-51580	11	62
158552-51670	11	130
158552-51781	11	101
158552-52100	11	132
158552-52311	11	110

Parts No.	Fig. No.	Ref. No.
158552-52400	11	111
158552-52500	11	133
158553-51670	11	67
158553-51680	11	79
158553-51930	11	104
	12	2
158553-61780	12	27
158557-51570	11	60
158557-61720	12	16
158563-51150	11	16
158563-51281	11	23
		24
158563-51330	11	35
158600-51270	11	22
158601-51550	11	57
158601-51650	11	128
158601-51770	11	100
158601-51790	11	102
171051-01921	1	5
175339-79700	4	59
198461-52950	16	8
		9
		10
22157-080000	6	13
22190-080002	9	31
		33
		35
	14	21
	18	24
22190-120002	10	27
	11	105
		112
		135
	12	28
	18	25
22190-180002	11	106
22190-220002	3	11
	18	26
22217-050000	11	136
22217-180000	11	113
22252-000300	8	24
22312-050140	11	114
22351-050010	11	115
22351-060012	1	11
22512-070140	7	7
	8	6
22857-500100	4	60
		61
22877-500080	17	14
		23

Parts No.	Fig. No.	Ref. No.
23000-025000	9	12
23080-012000	10	43
		47
23414-080000	10	31
	18	27
23857-030000	9	32
23875-030000	10	28
23876-020000	4	6
23876-030000	1	12
		13
		14
	4	7
24311-000070	2	18
	11	116
	18	28
24311-000120	4	26
		64
	18	29
24311-000160	14	31
24311-000320	2	25
	4	65
	18	30
24321-000600	9	13
	18	31
24321-000750	14	32
24341-000240	2	31
	18	32
24341-000480	12	22
24341-000530	8	10
	18	33
24351-030750	2	19
	18	34
24356-190200	11	70
		117
24356-240210	11	118
24372-000150	11	71
25152-004300	10	15
25152-004500	10	15 -2
26014-080252	16	7
26106-060102	11	119
26106-060122	4	62
	11	137
26106-060162	2	32
	12	23
26106-060202	10	29
26106-060252	12	29
26106-060302	10	12
26106-060352	11	120
26106-080122	3	12
	9	23

Parts No. Index

Parts No.	Fig. No.	Ref. No.
26106-080122	9	34
		36
26106-080162	2	32
		20
26106-080202	4	38
		67
		14
		8
		24
		21
		27
26106-080252	6	15
		16
		142
26106-080302	11	24
26106-080402	11	143
		3
26106-080452	2	39
		43
26106-080552	4	22
		28
26106-080602	5	5
		13
26106-080652	7	13
		13
26106-080702	10	44
		45
26106-080752	4	11
		33
26106-080802	10	17
		40
26106-081102	2	29
		6
26106-100302	5	12
		21
26106-100952	6	26
		27
26206-100352	15	31
		5
26216-060202	3	6
		4
26226-080222	5	4
		15
26306-060002	2	42
		46
26366-060002	4	8
		17
26306-100002	6	18
		22
26366-060002	2	23
		4
26366-060002	16	4
		51

Parts No.	Fig. No.	Ref. No.
26450-100452	11	121
26716-050002	11	138
26776-180002	11	122
27241-160000	11	139
27241-300000	1	10
27241-400000	4	8
27310-070001	4	20
729900-02801	1	29
729907-01590	2	33
729927-01560	1	1
729927-22900	8	34
729927-22950	8	36
729927-51320	11	1
729927-53100	13	1
977770-1207F	18	36
X2240610100	15	23

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