

OCR10-M51800EN

P R E F A C E

1. This Parts Catalog carries all parts incorporated in YANMAR Model 3TNE78A-SA01~05, 3TNE78A-G1A01, 3TNE78A-G2A01, 3TNE78A-ESA01~05, 3TNE78AC-EG1A01 & 3TNE78AC-G1A01.

2. Model name

Column	Model name	Manufactured	E/#
(A)	3TNE78A-SA01	1999/1~	24231~
	3TNE78A-SA02		
	3TNE78A-SA03		
	3TNE78A-SA04		
	3TNE78A-SA05		
(B)	3TNE78A-G1A01	1999/1~	24270~
(C)	3TNE78A-G2A01	1998/12~	23331~
(D)	3TNE78A-ESA01	1999/1~	24604~
	3TNE78A-ESA02		
	3TNE78A-ESA03		
	3TNE78A-ESA04		
	3TNE78A-ESA05		
(E)	3TNE78AC-EG1A01	2001/6~	51186~
(F)	3TNE78AC-G1A01	1999/1~	24437~

3. Each illustration corresponds to the parts list on the following page.

4. When ordering parts, clearly write down the engine model and serial number, as well as the name and number of each part in your order sheet. This will help insure reliable delivery of the parts you have ordered.

Directions for the Parts Catalog.

- 1.This Parts Catalog shows both standard and optional parts.
- 2.Parts may change without prior notice.
- 3.The following is an example of the Parts Catalog format.

OCF10-G21601 29. FUEL INJECTION PUMP(W/BOOST)										
REF.	LEV.	PARTS NO.	DESCRIPTION	(A)	(B)	(C)	(D)	(E)	(F)	
1	1	729595-51390	FUEL INJECTION PUMP	1	1	1	1	1		1
1-1	1	729595-51391	FUEL INJECTION PUMP	1	1	1	1	1	N	1
		(A=E00185) (B=E00200)								
3	2	26022-060162	SCREW M 6X 16	9	9	9	9	9		
3-1	2	26022-060162	SCREW M 6X 16	4	4	4	4	4	K	
		(A=E00156) (B=E00156) (C=E00156) (D=E00156) (E=E00156)								
4	2	129470-51040	CAMSHAFT	1	1	1	1	1		
5	2	122710-51050	BEARING, ROLLER	2	2	2	2	2		
6	2	129470-51060	RETAINER	1	1	1	1	1		

Remarks

(1) BOOST COMPEMSATOR TYPE. OPTIONAL PART, TO E00155,(4JH-DT, 4JH-DTZ

① Ref. No.

The Ref. No. listed may not be in accordance with the illustration Ref. No.

(Ex.) Illustration No.

List Ref No.

1 1 (Before change) → 1-1 (After change)

For interchangeable symbols N, R and K, illustrations for new parts may be abbreviated.

② Lev. (Level)

Level indication

The numbers below indicate the level of relativity towards the main part.

1 ---- Main parts (Assembly parts)

2 ---- Sub component included in " 1 ".

3 ---- Sub component included in " 2 ".

Note) Parts that are not for sale are partially illustrated but not listed.

③ Interchangeability Symbol

When a part change takes place, one of the following interchangeability symbols is indicated beside the part.

Symbol	Interchangeability	Contents note
N	Old $\xrightarrow{\text{Yes}}$ New No $\xrightarrow{\text{No}}$ New	New Part is interchangeable for Old Part but Old Part is not interchangeable for New Part.
Q	Old $\xrightarrow{\text{No}}$ New Yes $\xrightarrow{\text{Yes}}$ New	New Part is not interchangeable for Old Part but Old Part is interchangeable for New Part.
R	Old $\xrightarrow{\text{Yes}}$ New Yes $\xrightarrow{\text{Yes}}$ New	New/ Old Parts are both interchangeable.
S	Old $\xrightarrow{\text{No}}$ New No $\xrightarrow{\text{No}}$ New	New/ Old Parts are both not interchangeable.
W		Part newly added.
Z		Part discontinued.
F		Not interchangeable by a single part but interchangeable together with related parts.
K		Changes only for used parts quantities.

④ Effective Machine No.

When a part changes, the effective Machine No. will be indicated in the (A)-(F) column.

Product Symbol	Product No.	Product Symbol	Product No.
C	Clutch No. Compressor No.	F	Machine No. (Agricultural Equip.)
D	Drive No.	M	Machine No.
E	Engine No.		

Note 1) A date may follow the symbol. (Ex.) 1996.01

Note 2) "XXXXX" and "ZZZZZ" are for parts that could not be predicted or for engine models that could not be identified.

Note 3) (A=E00185) is the E (Engine Serial Number) for the column (A) model (in this case 4JH-DT) after the parts design change.

⑤ Remarks

Figures or alphabets (symbols) are entered in the remarks column.

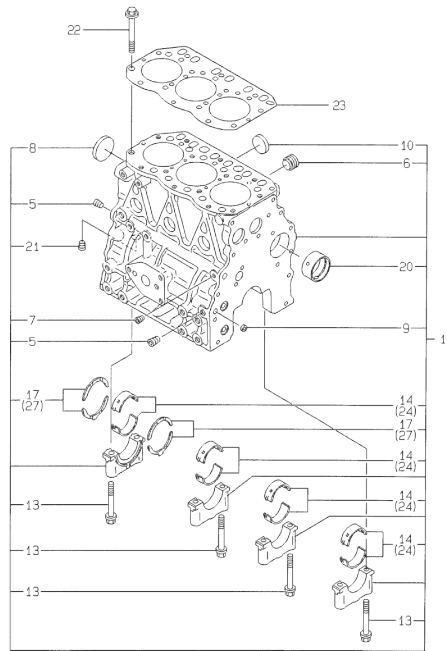
The comments (remarks) on parts that are indicated at the bottom of the illustration are the same symbols as those stated above.

Contents

Fig. No.	Fig. Name	Fig. No.	Fig. Name
3TNE78(C)-(E)SA,G1,2		25.	PANEL
1.	CYLINDER BLOCK	26.	GASKET SET
2.	GEAR HOUSING		
3.	FLYWHEEL HOUSING & OIL SUMP		
4.	CYLINDER HEAD & BONNET		
5.	CYLINDER HEAD & BONNET		
6.	SUCTION MANIFOLD & AIR CLEANER		
7.	EXHAUST MANIFOLD & SILENCER		
8.	CAMSHAFT & DRIVING GEAR		
9.	CRANKSHAFT & PISTON		
10.	LUB.OIL SYSTEM		
11.	COOLING WATER SYSTEM		
12.	RADIATOR		
13.	FUEL INJECTION PUMP		
14.	FUEL INJECTION PUMP		
15.	GOVERNOR		
16.	GOVERNOR		
17.	FUEL INJECTION VALVE		
18.	FUEL FILTER		
19.	ENGINE CONTROL DEVICE		
20.	STARTING MOTOR		
21.	STARTING MOTOR(COLD DISTRICT)		
22.	STARTING MOTOR(COLD DISTRICT)		
23.	GENERATOR		
24.	OUTPUT SHAFT		

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Fig.1. CYLINDER BLOCK

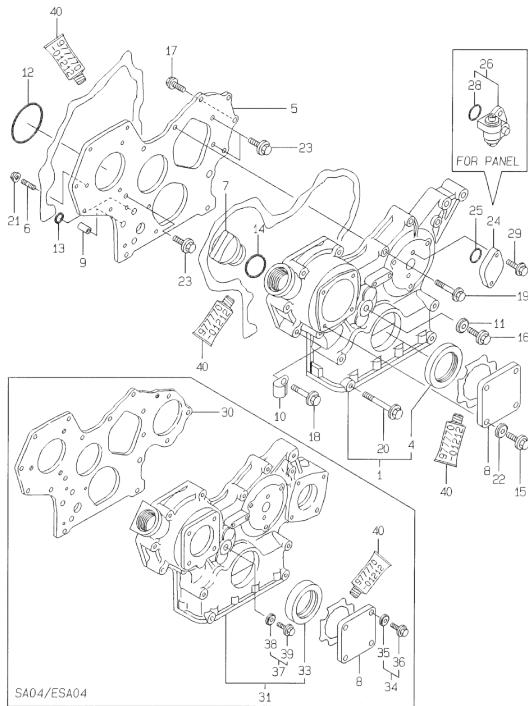


Remarks
(1) UNDER-SIZE(U.S=0.25)PART.
(2) OVER-SIZE(O.S=0.25)PART.

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	719822-01560	BLOCK ASSY, CYLINDER	1	1	1	1	1	1		
5	2	124160-01910	PLUG, PT1/4	2	2	2	2	2	2		
6	2	171051-01921	PLUG, NPTF1	1	1	1	1	1	1		
7	2	23876-010000	PLUG, R01	1	1	1	1	1	1		
8	2	129001-01250	PLUG, 50	1	1	1	1	1	1		
9	2	27241-120000	PLUG, 12	2	2	2	2	2	2		
10	2	27241-300000	PLUG 30	6	6	6	6	6	6		
13	2	119620-02020	BOLT, METAL CAP	8	8	8	8	8	8		
14	2	119810-02800	BEARING, MAIN	4	4	4	4	4	4		
17	2	119810-02930	BEARING, THRUST	1	1	1	1	1	1		
20	2	129795-02411	BUSH, CAMSHAFT	1	1	1	1	1	1		
21	2	124160-01910	PLUG, PT1/4	1	1	1	1	1	1		
22	1	119810-01200	BOLT, HEAD	14	14	14	14	14	14		
23	1	119818-01330	GASKET, HEAD	1	1	1	1	1	1		
24	1	119810-02870	BEARING, 0.25 US	4	4	4	4	4	4		1
27	1	119810-02940	BEARING, THRUST 0.25	2	2	2	2	2	2		2

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Fig.2. GEAR HOUSING

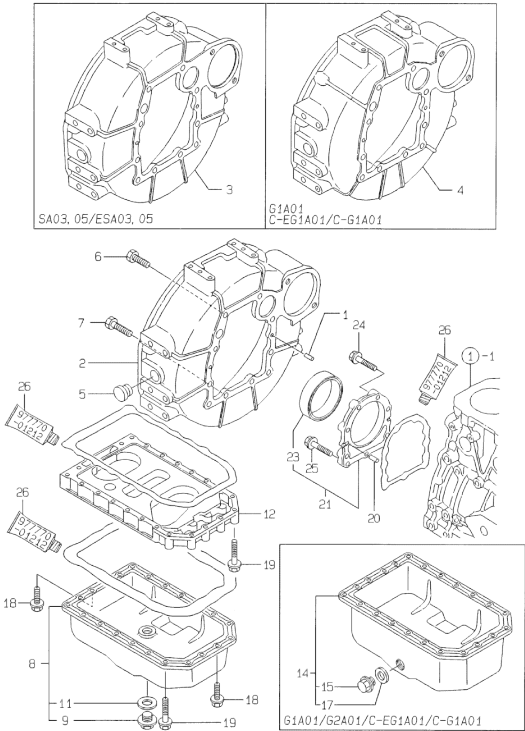


Remarks
(1) FOR 3TNE78A-SA/ESA01,02,03,05.
(2) FOR 3TNE78A-SA/ESA04.
(3) OPTIONAL PART.

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	719810-01500	CASE ASSY, GEAR	1	1	1	1	1	1	1	1
4	2	129795-01800	SEAL, OIL	1	1	1	1	1	1	1	1
5	1	129400-01520	FLANGE, GEAR CASE	1	1	1	1	1	1	1	1
6	1	121450-01560	STUD, M8X22	3	3	3	3	3	3		
7	1	124160-01751	COVER, FILLER	1	1	1	1	1	1		
8	1	124240-01871	COVER	1	1	1	1	1	1		
9	1	129795-01950	PIPE, KNOCK L=18	2	2	2	2	2	2		
10	1	129150-03100	RETAINER, PIPE	1	1	1	1	1	1		
11	1	22190-080002	WASHER, SEAL 6	1	1	1	1	1	1		1
12	1	121850-51960	O-RING	1	1	1	1	1	1		
13	1	24311-000160	O-RING, 1AP16.0	2	2	2	2	2	2		
13-1	1	119609-32040	O-RING, P16	2	2	2	2	2	2	R	
(A=E52268) (B=E52282) (C=E52367) (D=E52265) (E=E51187) (F=E25000)											
14	1	24311-000320	O-RING, 1AP32.0	1	1	1	1	1	1		
15	1	26106-080122	BOLT, M8X 12 PLATED	4	4	4	4	4	4		1
16	1	26106-080162	BOLT, M8X 16 PLATED	1	1	1	1	1	1		1
17	1	26106-080202	BOLT, M8X 20 PLATED	2	2	2	2	2	2		1
18	1	26106-080452	BOLT, M8X 45 PLATED	6	6	6	6	6	6		
19	1	26106-080552	BOLT, M8X 55 PLATED	3	3	3	3	3	3		
20	1	129001-91840	BOLT, M8X85	4	4	4	4	4	4		
20-1	1	129001-91841	BOLT, M8X85	4	4	4	4	4	4	R	
(A=E43002) (B=E43062) (C=E43507) (D=E43005) (E=E51186) (F=E25000)											
21	1	26366-080002	NUT, M8	3	3	3	3	3	3		
21-1	1	26306-080002	NUT, M8	3	3	3	3	3	3	N	
(A=E00X) (B=E00X) (C=E00X) (D=E00X) (E=E00X) (F=E00X)											
22	1	22190-080002	WASHER, SEAL 6	4	4	4	4	4	4		1
23	1	26106-080162	BOLT, M8X 16 PLATED	3	3	3	3	3	3		
24	1	121023-01550	COVER	1	1	1	1	1	1		
25	1	24341-000240	O-RING, 1AS24.0	1	1	1	1	1	1		
26	1	129150-91400	GEAR	1	1	1	1	1	1		
28	2	24341-000240	O-RING, 1AS24.0	1	1	1	1	1	1		
29	1	26106-060162	BOLT, M6X 16 PLATED	2	2	2	2	2	2		
30	1	171353-01520	FLANGE, GEAR CASE	1							2
31	1	171353-01580	CASE ASSY, GEAR	1							2
33	2	129795-01800	SEAL, OIL	1							2
34	1	124550-01590	BOLT, M8X16	4							2
35	2	22190-080003	WASHER, SEAL 8	4							2
36	2	26106-080162	BOLT, M8X 16 PLATED	4							2
37	1	124550-01590	BOLT, M8X16	1							2
38	2	22190-080003	WASHER, SEAL 8	1							2
39	2	26106-080162	BOLT, M8X 16 PLATED	1							2
40	1	977770-01212	GASKET, LIQUID	1	1	1	1	1	1		3

N:Old $\frac{YBS}{100}$ New, Q:Old $\frac{HIS}{100}$ New, R:Old $\frac{YBS}{100}$ New, S:Old $\frac{HIS}{100}$ New, W:Add, Z:Discontinued, F:Interchangeable by set, K:Q'ty Change
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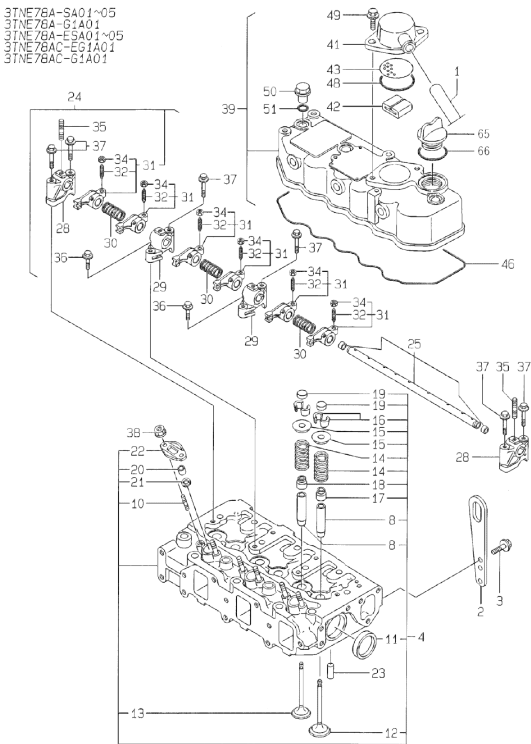
Fig.3. FLYWHEEL HOUSING & OIL SUMP



Remarks
(1) FOR 3TNE78A-SA/ESA01,02,04.
(2) FOR 3TNE78A-SA/ESA03,05.
(3) OPTIONAL PART.

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129100-01580	PIN, M8X16	2	2	2	2	2	2		
2	1	119888-01600	HOUSING, FLYWHEEL	1		1	1			1	
3	1	129612-01600	HOUSING, FLYWHEEL	1			1				2
4	1	171420-01600	HOUSING, FLYWHEEL		1			1	1		
5	1	119620-01750	CAP	1	1	1	1	1	1		
6	1	26206-100252	BOLT, M10X 25 PLATED	6	6	6	6	6	6		
7	1	26206-100302	BOLT, M10X 30 PLATED	4	4	4	4	4	4		
8	1	119810-01790	SUMP ASSY, OIL	1			1				
9	2	119640-01640	PLUG, DRAIN M22	1			1				
11	2	22190-220002	WASHER, SEAL 22	1			1				
12	1	119810-01730	SPACER, OIL SUMP	1	1	1	1	1	1		
14	1	119810-01770	SUMP ASSY, OIL		1	1		1	1		
15	2	119640-01640	PLUG, DRAIN M22		1	1		1	1		
17	2	22190-220002	WASHER, SEAL 22		1	1		1	1		
18	1	26106-080162	BOLT, M8X 16 PLATED	6	6	6	6	6	6		
19	1	26106-080452	BOLT, M8X 45 PLATED	22	22	22	22	22	22		
20	1	129100-01580	PIN, M8X16	2	2	2	2	2	2		
21	1	719810-01650	CASE ASSY, OIL SEAL	1	1	1	1	1	1		
23	2	119810-01780	SEAL, 769310	1	1	1	1	1	1		
24	1	129486-01670	BOLT, M8X30	6	6	6	6	6	6		
25	1	26106-080352	BOLT, M8X 35 PLATED	3	3	3	3	3	3		
26	1	977770-01212	GASKET, LIQUID	1	1	1	1	1	1		3

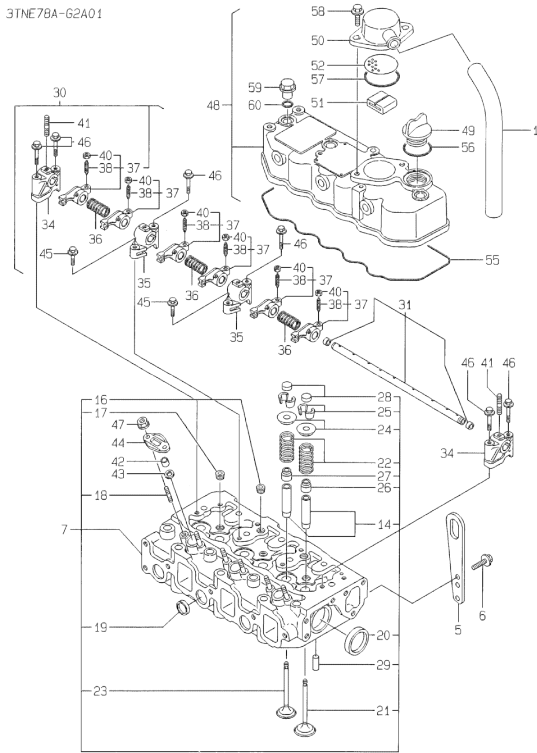
Fig.4. CYLINDER HEAD & BONNET



Remarks
(1) REPAIR PART.

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	171350-03090	PIPE , BREATHER 900	1	1			1	1	1	
2	1	129900-07900	LIFTER	1	1			1	1	1	
3	1	26106-080162	BOLT, M8X 16 PLATED	2	2			2	2	2	
4	1	119812-11700	HEAD ASSY, CYLINDER	1	1			1	1	1	
8	2	124060-11800	GUIDE, VALVE	6	6			6	6	6	1
10	2	26216-060302	STUD, M6X 30	6	6			6	6	6	
11	2	27241-400000	PLUG, 40	2	2			2	2	2	
12	2	119810-11100	VALVE, INTAKE	3	3			3	3	3	
13	2	119810-11110	VALVE, EXHAUST	3	3			3	3	3	
14	2	119810-11120	SPRING, VALVE	6	6			6	6	6	
15	2	104211-11180	RETAINER, SPRING	6	6			6	6	6	
16	2	27310-070001	COTTER, 7	6	6			6	6	6	
17	2	124160-11340	SEAL, VALVE STEM	3	3			3	3	3	
18	2	124950-11340	SEAL, VALVE STEM	3	3			3	3	3	
19	2	104211-11370	CAP, VALVE	6	6			6	6	6	
20	2	119625-11870	PROTECTOR, NOZZLE	3	3			3	3	3	
20-1	2	119625-11872	PROTECTOR, NOZZLE	3	3			3	3	3	R
(A=E50198) (B=E51062) (D=E50642) (E=E51186) (F=E25000)											
21	2	119625-11880	SEAT, NOZZLE	3	3			3	3	3	
22	2	119625-11900	RETAINER, NOZZLE	3	3			3	3	3	
23	1	22351-060012	PIN, SPRING 6.0X12	2	2			2	2	2	
24	1	119865-11210	SUPPORT ASSY	1	1			1	1	1	
25	2	119810-11240	SHAFT ASSY, ROCKER	1	1			1	1	1	
28	2	129155-11260	SUPPORT, ROCKER ARM	2	2			2	2	2	
29	2	129155-11270	SUPPORT, ROCKER ARM	2	2			2	2	2	
30	2	129150-11280	SPRING	3	3			3	3	3	
31	2	719810-11660	ARM ASSY, ROCKER	6	6			6	6	6	
32	3	129150-11230	SCREW, VALVE ADJUST	6	6			6	6	6	
34	3	129150-11750	NUT, M8	6	6			6	6	6	
35	2	26226-080182	STUD, M8X 18	3	3			3	3	3	
35-1	2	119802-11280	STUD	3	3			3	3	3	R
(A=E50198) (B=E51062) (D=E50642) (E=E51186) (F=E25000)											
36	1	26106-080252	BOLT, M8X 25 PLATED	2	2			2	2	2	
37	1	26106-080502	BOLT, M8X 50 PLATED	6	6			6	6	6	
38	1	26366-060002	NUT, M6	6	6			6	6	6	
39	1	719810-11520	BONNET ASSY, HEAD	1	1			1	1	1	
39-1	1	719810-11521	BONNET ASSY, HEAD	1	1			1	1	1	N
(A=E41747) (B=E42232) (D=E43005) (E=E51186) (F=E25000)											
41	2	129150-03020	COVER, BREATHER	1	1			1	1	1	
42	2	129150-03070	BAFFLE, BREATHER	1	1			1	1	1	
43	2	129150-03080	PLATE, BAFFLE	1	1			1	1	1	
46	2	119865-11310	GASKET, BONNET	1	1			1	1	1	
48	2	24341-000500	O-RING, 1AS50.0	1	1			1	1	1	
49	2	26106-080162	BOLT, M8X 16 PLATED	2	2			2	2	2	
50	1	124160-11360	KNOB	3	3			3	3	3	
51	1	24311-000120	O-RING, 1AP12.0	3	3			3	3	3	
65	1	124160-01751	COVER, FILLER	1	1			1	1	1	
66	1	24311-000320	O-RING, 1AP32.0	1	1			1	1	1	

Fig.5. CYLINDER HEAD & BONNET



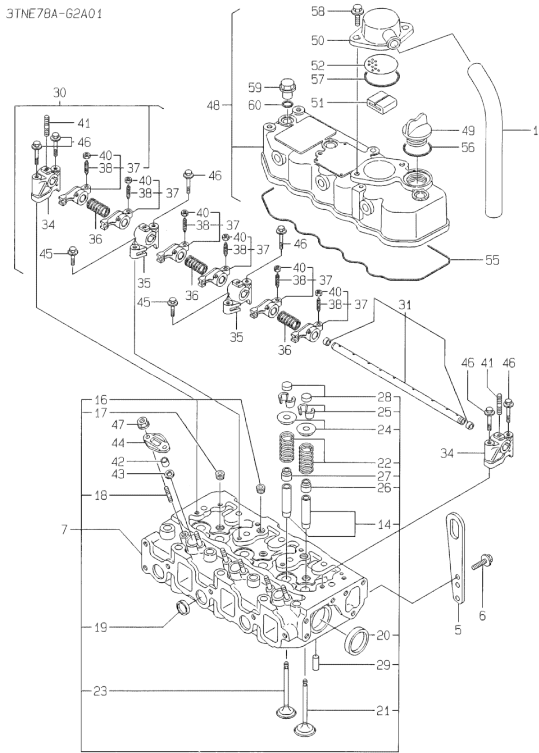
Remarks
(1) REPAIR PART.

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	171350-03090	PIPE , BREATHER 900				1				
5	1	129900-07900	LIFTER				1				
6	1	26106-080162	BOLT, M8X 16 PLATED				2				
7	1	719818-11700	HEAD ASSY, CYLINDER				1				1
14	2	124060-11800	GUIDE, VALVE				6				
16	2	121850-11860	PLUG, PT1/4				2				
17	2	23871-030000	PLUG, R03				3				
17-1	2	23876-030000	PLUG, R03				3				N
(C=EXXX)											
18	2	26216-060302	STUD, M6X 30				6				
19	2	27241-220000	PLUG, 22				3				
20	2	27241-400000	PLUG, 40				2				
21	2	119810-11100	VALVE, INTAKE				3				
22	2	119810-11120	SPRING, VALVE				6				
23	2	119810-11130	VALVE, EXHAUST				3				
24	2	104211-11180	RETAINER, SPRING				6				
25	2	27310-070001	COTTER, 7				6				
26	2	124160-11340	SEAL, VALVE STEM				3				
27	2	124950-11340	SEAL, VALVE STEM				3				
28	2	104211-11370	CAP, VALVE				6				
29	2	22351-060012	PIN, SPRING 6.0X12				2				
30	1	119865-11200	SUPPORT ASSY, ARM				1				
31	2	119810-11240	SHAFT ASSY, ROCKER				1				
34	2	129155-11260	SUPPORT, ROCKER ARM				2				
35	2	129155-11270	SUPPORT, ROCKER ARM				2				
36	2	129150-11280	SPRING				3				
37	2	719810-11650	ARM ASSY, ROCKER				6				
38	3	129150-11230	SCREW, VALVE ADJUST				6				
40	3	129150-11750	NUT, M8				6				
41	2	26226-080182	STUD, M8X 18				3				
41-1	2	119802-11280	STUD				3				R
(C=EXXX)											
42	1	119625-11870	PROTECTOR, NOZZLE				3				
42-1	1	119625-11872	PROTECTOR, NOZZLE				3				R
(C=E50644)											
43	1	119625-11880	SEAT, NOZZLE				3				
44	1	119625-11900	RETAINER, NOZZLE				3				
45	1	26106-080252	BOLT, M8X 25 PLATED				2				
46	1	26106-080502	BOLT, M8X 50 PLATED				6				
47	1	26366-060002	NUT, M6				6				
48	1	719810-11520	BONNET ASSY, HEAD				1				
48-1	1	719810-11521	BONNET ASSY, HEAD				1				N
(C=E42066)											
49	2	124160-01751	COVER, FILLER				1				
50	2	129150-03020	COVER, BREATHER				1				
51	2	129150-03070	BAFFLE, BREATHER				1				
52	2	129150-03080	PLATE, BAFFLE				1				
55	2	119865-11310	GASKET, BONNET				1				
56	2	24311-000320	O-RING, 1AP32.0				1				
57	2	24341-000500	O-RING, 1AS50.0				1				
58	2	26106-080162	BOLT, M8X 16 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
++ CONTINUE ++
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OCR10-M51800

Fig.5. CYLINDER HEAD & BONNET

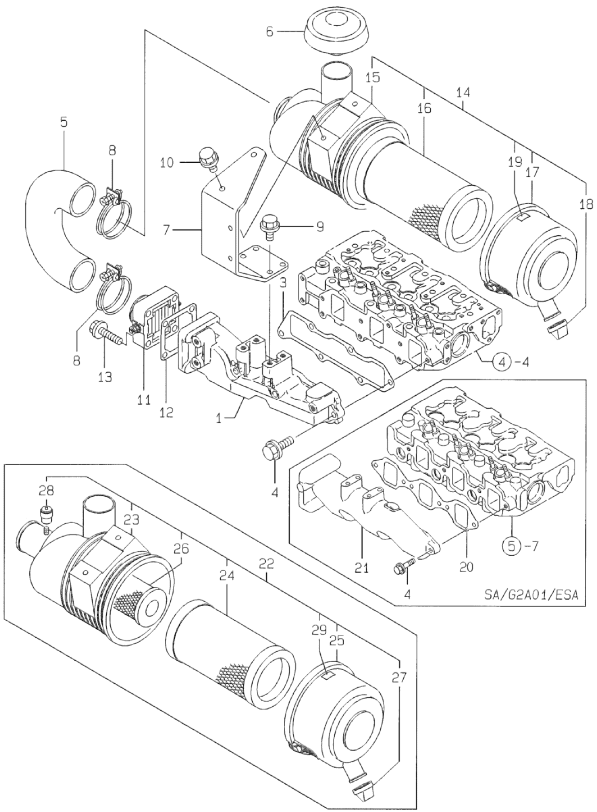


Remarks
(1) REPAIR PART.

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
59	1	124160-11360	KNOB			3					
60	1	24311-000120	O-RING, 1AP12.0			3					

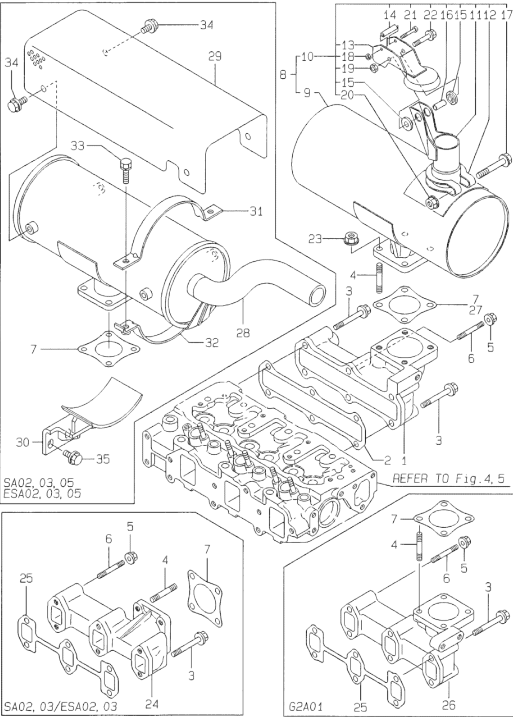
N:Old $\frac{YBS}{100}$ New, Q:Old $\frac{R10}{100}$ New, R:Old $\frac{YBS}{100}$ New, S:Old $\frac{R10}{100}$ New, W:Add, Z:Discontinued, F:Interchangeable by set, K:Q'ty Change
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Fig.6. SUCTION MANIFOLD & AIR CLEANER



No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	119813-12100	MANIFOLD, AIR INTAKE		1				1	1	
3	1	119813-12110	GASKET, MANIFOLD		1				1	1	
4	1	26106-080252	BOLT, M8X 25 PLATED	4	6	4	4	6	6		
5	1	129619-12210	PIPE, AIR INTAKE	1	1	1	1	1	1		
6	1	121521-12400	CAP, RAIN	1	1	1	1	1	1		
7	1	129608-12560	BRACKET, AIR CLEANER	1	1	1	1	1	1		
8	1	23000-060000	CLAMP, 60	2	2	2	2	2	2		
9	1	26106-080182	BOLT, M8X 18 PLATED	4	4	4	4	4	4		
10	1	26106-080182	BOLT, M8X 18 PLATED	2	2	2	2	2	2		
11	1	129120-77501	HEATER	1	1	1	1	1	1		
12	1	129150-77511	GASKET	1	1	1	1	1	1		
13	1	26106-080352	BOLT, M8X 35 PLATED	4	4	4	4	4	4		
14	1	129608-12501	CLEANER ASSY, AIR	1	1	1	1	1	1		
15	2	129608-12511	BODY, AIR CLEANER	1	1	1	1	1	1		
16	2	119808-12520	ELEMENT	1	1	1	1	1	1		
17	2	119808-12530	COVER	1	1	1	1	1	1		
18	2	119808-12540	VALVE, UNLOADER	1	1	1	1	1	1		
19	2	129418-12530	LABEL, MARK	1	1	1	1	1	1		
20	1	119810-12111	GASKET, MANIFOLD	1		1	1				
21	1	171301-12701	MANIFOLD, AIR INTAKE	1		1	1				
22	1	119822-12500	CLEANER ASSY, AIR	1	1	1	1	1	1		
23	2	119822-12510	BODY, AIR CLEANER	1	1	1	1	1	1		
24	2	119808-12520	ELEMENT	1	1	1	1	1	1		
25	2	119808-12530	COVER	1	1	1	1	1	1		
26	2	129051-12530	ELEMENT	1	1	1	1	1	1		
27	2	119808-12540	VALVE, UNLOADER	1	1	1	1	1	1		
28	2	126650-12680	INDICATOR	1	1	1	1	1	1		
29	2	129418-12530	LABEL, MARK	2	2	2	2	2	2		

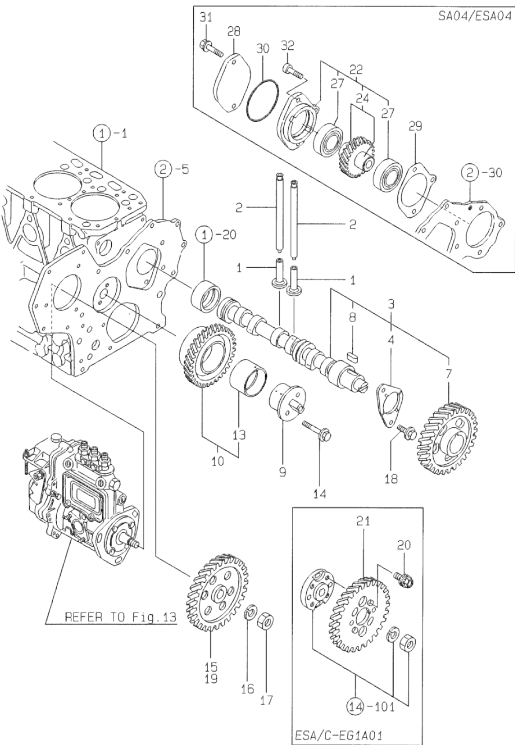
Fig.7. EXHAUST MANIFOLD & SILENCER



Remarks
(1) FOR 3TNE78A-SA/ESA01,04,05.
(2) FOR 3TNE78A-SA/ESA02,03.
(3) FOR 3TNE78A-SA/ESA02,03,05.
(4) FOR 3TNE78A-SA/ESA05.

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	119813-13100	MANIFOLD, EXHAUST	1	1			1	1	1	1
2	1	119813-13110	GASKET	1	1			1	1	1	1
3	1	26106-080602	BOLT, M8X 60 PLATED	4	4	4	4	4	4	4	
4	1	119131-18320	STUD, M8X22	4	4	4	4	4	4	4	
5	1	26366-080002	NUT, M8	2	2	2	2	2	2	2	
5-1	1	26306-080002	NUT, M8	2	2	2	2	2	2	2	N
6	1	26216-080602	STUD, M8X 60	2	2	2	2	2	2	2	
7	1	121000-13201	GASKET, SILENCER	1	1	1	1	1	1	1	
8	1	119620-13501	SILENCER	1	1	1	1	1	1	1	1
9	2	119620-13510	SILENCER ASSY	1	1	1	1	1	1	1	1
10	2	119620-13520	PIPE ASSY, TAIL	1	1	1	1	1	1	1	1
11	3	119620-13560	PIPE, TAIL	1	1	1	1	1	1	1	1
12	3	124664-13580	CLAMP	1	1	1	1	1	1	1	1
13	3	119358-13640	CAP, RAIN	1	1	1	1	1	1	1	1
14	3	121855-13821	SPACER, A	1	1	1	1	1	1	1	1
15	3	121855-13830	SPACER, B	2	2	2	2	2	2	2	1
16	3	123500-13840	SPACER, C	1	1	1	1	1	1	1	1
17	3	26106-080552	BOLT, M8X 55 PLATED	1	1	1	1	1	1	1	1
18	3	26347-040002	NUT, M4	1	1	1	1	1	1	1	1
19	3	26347-060002	NUT, M6	1	1	1	1	1	1	1	1
20	3	26366-080002	NUT, M8	1	1	1	1	1	1	1	1
20-1	3	26306-080002	NUT, M8	1	1	1	1	1	1	1	N 1
21	3	26557-040352	SCREW, M4X35	1	1	1	1	1	1	1	1
22	3	26106-060402	BOLT, M6X 40 PLATED	1	1	1	1	1	1	1	1
23	1	26366-080002	NUT, M8	4	4	4	4	4	4	4	1
23-1	1	26306-080002	NUT, M8	4	4	4	4	4	4	4	N 1
24	1	119810-13100	MANIFOLD, EXHAUST	1				1			2
25	1	119810-13110	GASKET	1		1	1				2
26	1	119888-13101	MANIFOLD, EXHAUST			1					
27	1	121000-13201	GASKET, SILENCER	1	1	1	1	1	1	1	1
27-1	1	124701-11911	GASKET, SILENCER	1	1	1	1	1	1	1	R 1
28	1	119888-13501	SILENCER	1				1			3
28-1	1	119888-13502	SILENCER	1				1			N 3
29	1	119888-13600	COVER, SILENCER	1				1			4
30	1	119888-13651	STAY, SILENCER	1				1			4
31	1	119888-13670	BAND, SILENCER	1				1			4
32	1	119888-13680	BAND, SILENCER	1				1			4
33	1	26014-080302	BOLT, M8X 30	2				2			4
34	1	26106-080122	BOLT, M8X 12 PLATED	4				4			4
35	1	26106-080142	BOLT, M8X 14 PLATED	2				2			4

Fig.8. CAMSHAFT & DRIVING GEAR

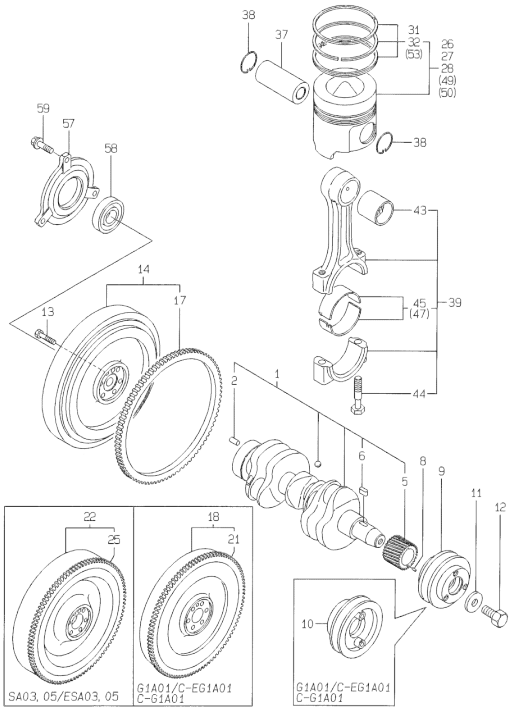


Remarks
(1) FOR 3TNE78A-SA/ESA04.

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129150-14200	TAPPET	6	6	6	6	6	6		
2	1	119810-14400	ROD, PUSH	6	6	6	6	6	6		
3	1	119810-14580	CAMSHAFT ASSY	1	1	1	1	1	1		
4	2	129150-02450	BEARING, THRUST	1	1	1	1	1	1		
7	2	129150-14101	GEAR, CAMSHAFT	1	1	1	1	1	1		
8	2	22512-070140	KEY, 7X 14	1	1	1	1	1	1		
9	1	129100-25061	SHAFT, IDLE	1	1	1	1	1	1		
10	1	129150-25101	GEAR ASSY, IDLE	1	1	1	1	1	1		
13	2	129150-25920	BUSH, IDLE GEAR	1	1	1	1	1	1		1
14	1	26106-080452	BOLT, M8X 45 PLATED	2	2	2	2	2	2		
15	1	129150-25900	GEAR, PUMP	1	1						1
16	1	22217-120000	WASHER, SPRING 12	1	1	1					1
17	1	26716-120002	NUT, M12	1	1	1					1
18	1	26106-080142	BOLT, M8X 14 PLATED	2	2	2	2	2	2		
19	1	129100-25900	GEAR, PUMP			1					
20	1	129150-25301	BOLT					4	4		
21	1	129150-25930	GEAR, PUMP					1	1		
21-1	1	129150-25931	GEAR, PUMP					1	1		R
(D=E40883)				(E=E51186)							
22	1	171353-26000	PTO ASSY	1			1				1
24	2	171353-26200	GEAR ASSY	1			1				1
27	2	24105-060064	BEARING, BALL 6006Z	2			2				1
28	1	121023-26070	COVER	1			1				1
29	1	171353-26081	GASKET	1			1				1
30	1	24321-000850	O-RING, 1AG85.0	1			1				1
31	1	26106-100452	BOLT, M10X 45 PLATED	2			2				1
32	1	26450-080282	BOLT, M8X 28	1			1				1

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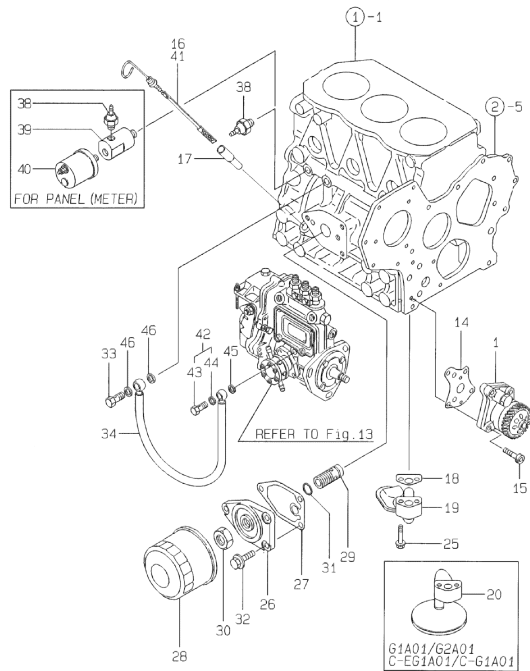
Fig.9. CRANKSHAFT & PISTON



Remarks
(1) REPAIR PART.
(2) UNDER-SIZE(U.S=0.25)PART.
(3) OVER-SIZE(O.S=0.25)PART.
(4) FOR 3TNE78A-SA/ESA01,02,04.
(5) FOR 3TNE78A-SA/ESA03,05.

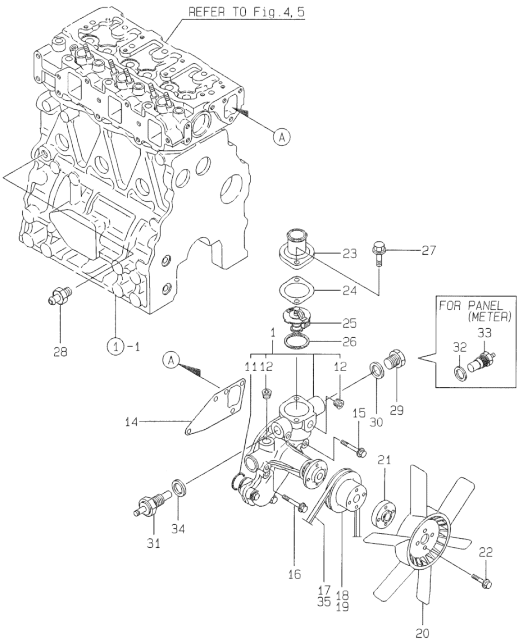
No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	119813-21000	CRANKSHAFT ASSY	1	1	1	1	1	1		
2	2	129100-01580	PIN, M8X16	1	1	1	1	1	1		
5	2	129150-21200	GEAR, CRANKSHAFT	1	1	1	1	1	1		
6	2	22512-070140	KEY, 7X 14	1	1	1	1	1	1		
8	1	22351-040010	PIN, SPRING 4.0X10	1	1	1	1	1	1		
9	1	171301-21650	V-PULLEY	1		1	1				
10	1	129550-21650	V-PULLEY		1			1	1		
11	1	129795-21661	WASHER	1	1	1	1	1	1		
12	1	121850-21680	BOLT	1	1	1	1	1	1		
13	1	121111-21501	BOLT, FLYWHEEL	6	6	6	6	6	6		
14	1	119888-21590	FLYWHEEL ASSY	1	1	1	1	1	1		4
17	2	119865-21600	GEAR, RING	1		1	1				4
18	1	171301-21590	FLYWHEEL ASSY		1			1	1		
21	2	124550-21600	GEAR, RING		1			1	1		
22	1	171301-21580	FLYWHEEL ASSY	1			1				5
25	2	119865-21600	GEAR, RING	1			1				5
26	1	119818-22080	PISTON ASSY	3	3				3		
27	1	119818-22090	PISTON ASSY			3					
28	1	119923-22080	PISTON ASSY				3	3			
31	2	119818-22500	RING SET, PISTON	3	3		3	3	3		
32	2	119818-22510	RING SET, PISTON			3					
37	1	119813-22300	PIN, PISTON	3	3	3	3	3	3		
38	1	129792-22400	CIRCLIP, 23	6	6	6	6	6	6		
39	1	719810-23100	ROD ASSY, CONNECTING	3	3	3	3	3	3		
43	2	119810-23910	BEARING, PISTON PIN	3	3	3	3	3	3		1
44	2	119810-23200	BOLT, CONNECTING ROD	6	6	6	6	6	6		
45	2	119810-23600	BEARING, CRANK PIN	3	3	3	3	3	3		
47	1	119810-23610	BEARING, 0.25 US	3	3	3	3	3	3		2
49	1	119818-22900	PISTON ASSY, 0.25 OS	3	3	3			3		3
50	1	119818-22930	PISTON ASSY, 0.25 OS				3	3			3
53	2	119818-22950	RING SET, 0.25 OS	3	3	3	3	3	3		3
57	1	119888-21450	RETAINER, BEARING	1		1					4
58	1	24104-062054	BEARING, BALL 6205UU	1		1					4
59	1	26106-080222	BOLT, M8X 22 PLATED	3		3					4

Fig.10. LUB.OIL SYSTEM



No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129001-32001	PUMP ASSY, OIL	1	1	1	1	1	1		
14	1	129150-32020	GASKET, PUMP	1	1	1	1	1	1		
15	1	26450-060252	BOLT, M6X 25	4	4	4	4	4	4		
16	1	119600-34800	DIPSTICK, OIL	1	1			1	1	1	
17	1	121520-34810	GUIDE, DIPSTICK	1	1	1	1	1	1	1	
18	1	129150-35041	GASKET	1	1	1	1	1	1	1	
19	1	119810-35401	PIPE ASSY, OIL INLET	1				1			
20	1	119810-35300	PIPE ASSY, OIL INLET		1	1			1	1	
25	1	26106-080352	BOLT, M8X 35 PLATED	2	2	2	2	2	2	2	
26	1	129150-35101	BRACKET, STRAINER	1	1	1	1	1	1	1	
27	1	129150-35111	GASKET	1	1	1	1	1	1	1	
28	1	129150-35151	FILTER, D80XL80	1	1	1	1	1	1	1	
29	1	129001-35300	BOLT, FILTER	1	1	1	1	1	1	1	
30	1	129150-35350	NUT	1	1	1	1	1	1	1	
31	1	24311-000160	O-RING, 1AP16.0	1	1	1	1	1	1	1	
32	1	26106-080202	BOLT, M8X 20 PLATED	3	3	3	3	3	3	3	
33	1	124160-39140	BOLT, PIPE JOINT M10	1	1	1	1	1	1	1	
34	1	119810-39200	PIPE ASSY, OIL	1	1	1	1	1	1	1	
38	1	124160-39450	SWITCH, 0.5KG	1	1	1	1	1	1	1	
38-1	1	114250-39450	SWITCH, 0.5KG	1	1	1	1	1	1	1	N
(A=E41997) (B=E42232) (C=E42066) (D=E43005) (E=E51186) (F=E25000)											
39	1	171375-39601	DAMPER, 1/8	1	1	1	1	1	1	1	
40	1	144626-91560	SENSOR	1	1	1	1	1	1	1	
40-1	1	119773-91501	SENSOR	1	1	1	1	1	1	1	N
(A=E52470) (B=E42769) (C=E52379) (D=E52518) (E=E51187) (F=E25000)											
41	1	171420-34820	DIPSTICK, OIL			1					
42	1	124550-59830	BOLT ASSY, JOINT M8	1	1	1	1	1	1	1	
43	2	124550-59820	BOLT, PIPE JOINT M8	1	1	1	1	1	1	1	
44	2	22190-080002	WASHER, SEAL 6	1	1	1	1	1	1	1	
45	1	22190-080002	WASHER, SEAL 6	1	1	1	1	1	1	1	
46	1	22190-100002	WASHER, SEAL 10	2	2	2	2	2	2	2	

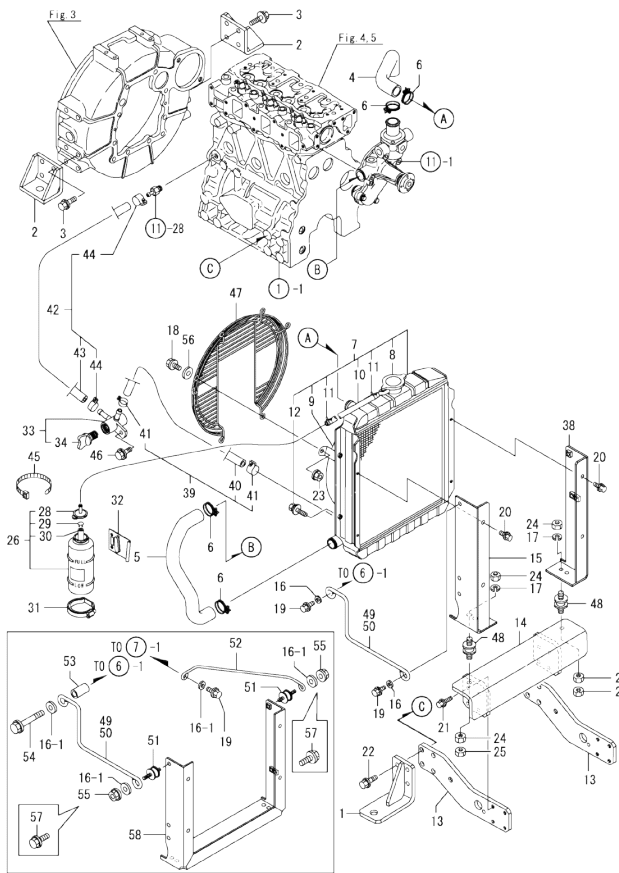
Fig.11. COOLING WATER SYSTEM



Remarks
(1) FOR 3TNE78A-SA/ESA01,02,03,05.
(2) FOR 3TNE78A-SA/ESA04.

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	119810-42001	PUMP ASSY, WATER	1	1	1	1	1	1		
11	2	129150-42320	O-RING	1	1	1	1	1	1		
12	2	238771-030000	PLUG, R03	2	2	2	2	2	2		
12-1	2	23876-030000	PLUG, R03	2	2	2	2	2	2	N	
		(A=E0000) (B=E0000) (C=E0000) (D=E0000) (E=E0000) (F=E0000)									
14	1	129150-42020	GASKET, WATER PUMP	1	1	1	1	1	1		
14-1	1	129486-42050	GASKET, WATER PUMP	1	1	1	1	1	1	N	
		(A=E43002) (B=E43062) (C=E43507) (D=E43005) (E=E51186) (F=E25000)									
15	1	26106-080352	BOLT, M8X 35 PLATED	1	1	1	1	1	1		
16	1	26106-080552	BOLT, M8X 55 PLATED	3	3	3	3	3	3		
17	1	129211-42290	V-BELT, A38.5	1	1	1	1	1	1		1
18	1	129403-42380	V-PULLEY, D=110	1	1	1	1	1	1		
19	1	129155-42350	V-PULLEY		1			1	1		
20	1	119620-44741	FAN, COOLING D310	1	1	1	1	1	1		
21	1	124574-44761	SPACER, FAN	1	1	1	1	1	1		
22	1	26014-060252	BOLT, M6X 25	4	4	4	4	4	4		
23	1	129350-49530	COVER, THERMOSTAT	1	1	1	1	1	1		
24	1	129795-49551	GASKET	1	1	1	1	1	1		
25	1	129155-49800	THERMOSTAT, 71	1	1	1	1	1	1		
26	1	129150-49811	GASKET, THERMOSTAT	1	1	1	1	1	1		
27	1	26106-080222	BOLT, M8X 22 PLATED	2	2	2	2	2	2		
28	1	121550-49111	JOINT, PT1/4	1	1	1	1	1	1		
29	1	121450-42450	PLUG, M16	1	1	1	1	1	1		
30	1	124465-44950	GASKET, 16	1	1	1	1	1	1		
31	1	124250-49351	SENSOR	1	1	1	1	1	1		
32	1	129150-49360	GASKET	1	1	1	1	1	1		
33	1	121250-44901	SWITCH, 110	1	1	1	1	1	1		
34	1	124465-44950	GASKET, 16	1	1	1	1	1	1		
35	1	25132-003800	V-BELT, A38	1				1			2
35-1	1	25132-003700	V-BELT, A37	1			1			N	2
		(A=E0000) (D=E0000)									

Fig.12. RADIATOR



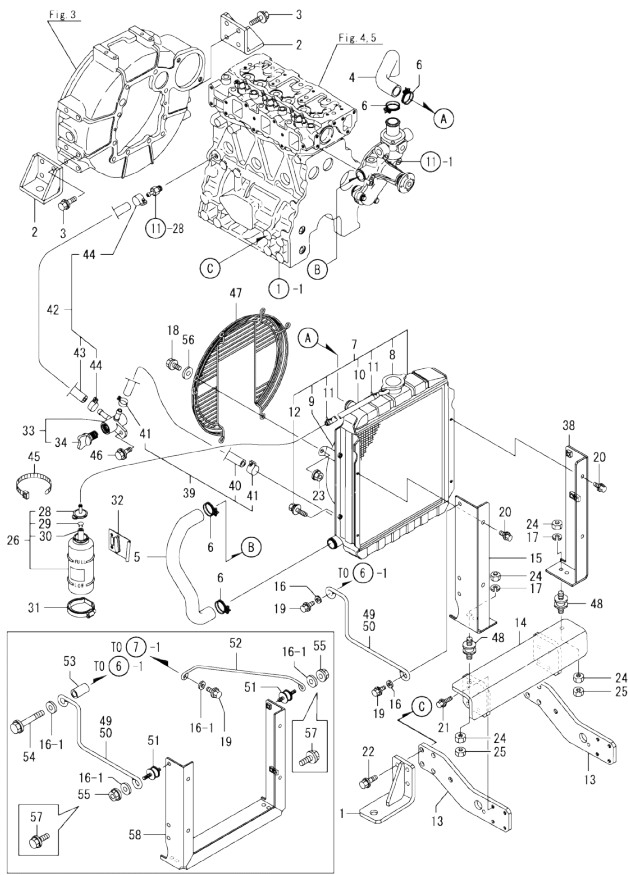
Remarks
(1) FOR 3TNE78A-SA/ESA01,04,05.

(A)=3TNE78A-SA01
(B)=3TNE78AG1A01
(C)=3TNE78AG2A01
(D)=3TNE78A-ESA0
(E)=3TNE78ACEG1A
(F)=3TNE78ACG1A1

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	119888-08100	FOOT	2	2		2	2	2		
2	1	119888-08110	FOOT	2	2		2	2	2		
3	1	26106-100202	BOLT, M10X 20 PLATED	8	8		8	8	8		
4	1	171301-49010	PIPE, WATER	1	1	1	1	1	1		
5	1	171301-49020	PIPE, WATER	1	1	1	1	1	1		
6	1	23010-038000	CLAMP, 38	4	4	4	4	4	4		
7	1	119621-44500	RADIATOR	1	1	1	1	1	1		
8	2	119259-44570	CAP, RADIATOR	1	1	1	1	1	1		
9	2	X2411365340	SHROUD	1	1	1	1	1	1		
10	2	129132-44530	HOSE, RUBBER	1	1	1	1	1	1		
11	2	121250-44590	CLAMP	2	2	2	2	2	2		
12	2	26014-080162	BOLT, M8X 16	4	4	4	4	4	4		
13	1	119888-44950	BRACKET	2	2		2	2	2		1
14	1	119888-44960	BRACKET	1	1		1	1	1		1
15	1	119888-44970	SUPPORT, A	1	1		1	1	1	Z	1
16	1	22137-080000	WASHER, 8	2	2		2	2	2		1
16-1	1	22137-080000	WASHER, 8	4	4		4	4	4	K	1
17	1	22217-100000	WASHER, SPRING 10	2	2		2	2	2		1
18	1	26106-080122	BOLT, M8X 12 PLATED	6	6	6	6	6	6		1
18-1	1	26106-080142	BOLT, M8X 14 PLATED	6	6		6	6	6	N	1
19	1	26106-080162	BOLT, M8X 16 PLATED	2	2		2	2	2		1
20	1	26106-080202	BOLT, M8X 20 PLATED	4	4		4	4	4		1
21	1	26106-080252	BOLT, M8X 25 PLATED	8	8		8	8	8		1
22	1	26206-120302	BOLT, M12X 30 PLATED	8	8		8	8	8		1
23	1	26306-080002	NUT, M8	6	6	6	6	6	6		1
23-1	1	26366-080002	NUT, M8	6	6		6	6	6	N	1
24	1	26716-100002	NUT, M10	4	4		4	4	4		1
25	1	26756-100002	NUT, LOCK M10	2	2		2	2	2		1
26	1	124450-44510	TANK ASSY, SUB	1	1	1	1	1	1		
28	2	124450-44530	CAP	1	1	1	1	1	1		
29	2	124450-44560	RETAINER	1	1	1	1	1	1		
30	2	23061-070230	PIPE, 7X 230	1	1	1	1	1	1		
31	1	124450-44550	BAND	1	1	1	1	1	1		
32	1	121256-44600	BRACKET, SUB TANK	1	1	1	1	1	1		
33	1	129150-49100	COCK ASSY, 3-WAY	1	1	1	1	1	1		
34	2	129150-49080	COCK, DRAIN	1	1	1	1	1	1		
38	1	119888-44980	SUPPORT, B	1	1		1	1	1		Z
39	1	119623-49100	PIPE, WATER	1	1		1	1	1		
40	2	119623-49010	PIPE, WATER	1	1		1	1	1		
41	2	124766-59050	CLIP, HOSE 12	2	2		2	2	2		
42	1	119823-49100	PIPE, WATER	1	1		1	1	1		
43	2	119823-49010	PIPE, WATER	1	1		1	1	1		
44	2	124766-59050	CLIP, HOSE 12	2	2		2	2	2		
45	1	121750-59890	BAND, 140	1	1		1	1	1		
46	1	26106-080162	BOLT, M8X 16 PLATED	1	1		1	1	1		
47	1	119621-44560	GUARD	1	1	1	1	1	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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Fig.12. RADIATOR



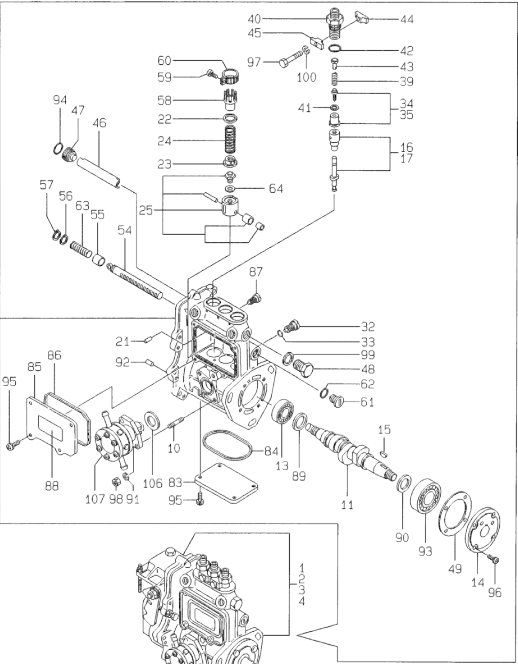
Remarks
(1) FOR 3TNE78A-SA/ESA01,04,05.

(A)=3TNE78A-SA01
(B)=3TNE78AG1A01
(C)=3TNE78AG2A01
(D)=3TNE78A-ESA0
(E)=3TNE78ACEG1A
(F)=3TNE78ACG1A1

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
47-1	1	119822-44560 (A=E40496)	GUARD (B=E40547) (C=E41107) (D=E40883)	1	1	1	1	1	1	N	
48	1	121400-44650	ABSORBER	2	2		2	2	2		1
49	1	119822-44940	RETAINER, RADIATOR		1			1	1		
50	1	129211-44940	RETAINER, RADIATOR	1			1				1
51	1	121400-44640 (A=E40496) (B=E40547) (A=E40496) (B=E40547)	ABSORBER (D=E40883) (E=E51186) (F=E25000)	2	2		2	2	2	W	1
51-1	1	121400-44640 (A=E40496) (B=E40547) (A=E40496) (B=E40547)	ABSORBER (D=E40883) (E=E51186) (F=E25000)	2	2		2	2	2	Z	1
52	1	119822-44950	RETAINER, RADIATOR	1	1		1	1	1	W	1
53	1	119820-77340	PIECE, DISTANCE	1			1				1
54	1	26106-080502 (A=E40496) (B=E40547) (A=E40496) (B=E40547)	BOLT, M8X 50 PLATED (D=E40883)	1			1				1
55	1	26366-080002 (A=E40496) (B=E40547) (A=E40496) (B=E40547)	NUT, M8 (D=E40883)	2	2		2	2	2	W	1
55-1	1	26366-080002 (A=E40496) (B=E40547) (A=E40496) (B=E40547)	NUT, M8 (D=E40883)	2	2		2	2	2	Z	1
56	1	22137-080000 (A=E40496) (B=E40547) (A=E40496) (B=E40547)	WASHER, 8 (D=E40883)	6	6		6	6	6	W	
57	1	26106-080202 (A=E40496) (B=E40547) (A=E40496) (B=E40547)	BOLT, M8X 20 PLATED (D=E40883)	2	2		2	2	2	W	
58	1	119822-44970 (A=E40496) (B=E40547) (A=E40496) (B=E40547)	SUPPORT, RADIATOR (D=E40883)	1	1		1	1	1	W	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.13. FUEL INJECTION PUMP



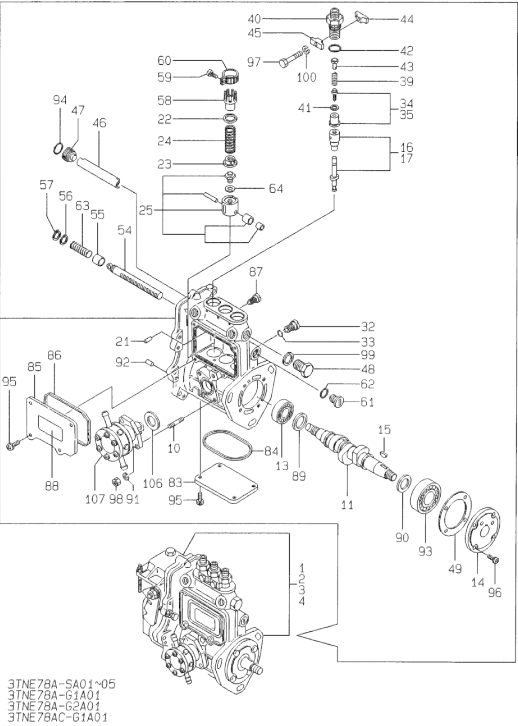
3TNE78A-SA01~05
3TNE78A-G1A01
3TNE78A-G2A01
3TNE78AC-G1A01

Remarks
(1) GOVERNOR(FIG.15) IS INCORPORATED
IN THIS FUEL INJECTION PUMP ASSY
(REF.NO.1,2,3,4).

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	719822-51370	PUMP ASSY, INJECTION	1							1
2	1	719989-51310	PUMP ASSY, INJECTION		1						1
3	1	719822-51400	PUMP ASSY, INJECTION			1					1
4	1	719822-51310	PUMP ASSY, INJECTION								1
10	2	129155-51020	STUD	2	2	2				2	
11	2	119810-51040	CAMSHAFT	1	1	1				1	
13	2	129155-51050	BEARING, 17BM001D	1	1	1				1	
13-1	2	129155-51051	BEARING	1	1	1				1	N
(A=E52599) (B=E52791) (C=E52389) (F=E25000)											
14	2	129155-51060	SUPPORT, CAMSHAFT	1	1	1				1	
15	2	122710-51090	KEY	1	1	1				1	
16	2	129108-51100	PLUNGER ASSY	3	3					3	
17	2	129411-51200	PLUNGER ASSY			3					
21	2	129155-51140	PIN	3	3	3				3	
22	2	174307-51170	RETAINER, SPRING A	3	3	3				3	
23	2	129155-51180	RETAINER, SPRING	3	3	3				3	
24	2	124950-51190	SPRING, PLUNGER	3	3	3				3	
25	2	129155-51200	TAPPET ASSY	3	3	3				3	
32	2	129155-51270	STOPPER, TAPPET	3	3	3				3	
33	2	129155-51280	O-RING, S6	3	3	3				3	
34	2	129100-51300	VALVE ASSY, DELIVERY	3	3						
35	2	128170-51300	VALVE ASSY, DELIVERY			3				3	
39	2	129155-51320	SPRING, DELIVERY	3	3	3				3	
40	2	129155-51340	RETAINER	3	3	3				3	
41	2	124550-51350	GASKET, DELIVERY	3	3	3				3	
42	2	124550-51370	O-RING	3	3	3				3	
43	2	129155-51370	STOPPER, VALVE	3	3	3				3	
44	2	129155-51380	STOPPER	2	2	2				2	
45	2	129155-51390	STOPPER	2	2	2				2	
46	2	129155-51400	DEFLECTOR	1	1	1				1	
47	2	129155-51410	BOLT	1	1	1				1	
48	2	129155-51420	PLUG, M16	1	1	1				1	
49	2	129155-51450	SHIM SET, ADJUSTING	1	1	1				1	
54	2	129155-51500	RACK, CONTROL	1	1	1				1	
55	2	129155-51521	BUSH, RACK	1	1	1				1	
56	2	129155-51530	SPACER	1	1	1				1	
57	2	129155-51540	CIRCLIP	1	1	1				1	
58	2	129155-51550	PINION, CONTROL	3	3	3				3	
59	2	122117-51560	SCREW	3	3	3				3	
59-1	2	129100-51570	SCREW	3	3	3				3	N
(A=E4XXX) (B=E4XXX) (C=E4XXX) (F=E4XXX)											
60	2	174307-51560	PINION	3	3	3				3	
60-1	2	129100-51560	PINION	3	3	3				3	N
(A=E4XXX) (B=E4XXX) (C=E4XXX) (F=E4XXX)											
61	2	129155-51570	PLUG, M12	1	1	1				1	
62	2	129155-51580	O-RING	1	1	1				1	
63	2	129155-51591	SPRING, RACK	1	1	1				1	
64	2	129155-51600	SHIM SET, ADJUSTING	3	3	3				3	
83	2	129155-51700	COVER	1	1	1				1	
83-1	2	129155-51701	COVER	1	1	1				1	N
(A=E42431) (B=E42782) (C=E42321) (F=E25000)											

N:Old $\frac{N_{10}}{10}$ New, Q:Old $\frac{Q_{10}}{10}$ New, R:Old $\frac{R_{10}}{10}$ New, S:Old $\frac{S_{10}}{10}$ New, W:Add, Z:Discontinued, F:Interchangeable by set, K:Q'ty Change
++ CONTINUE ++
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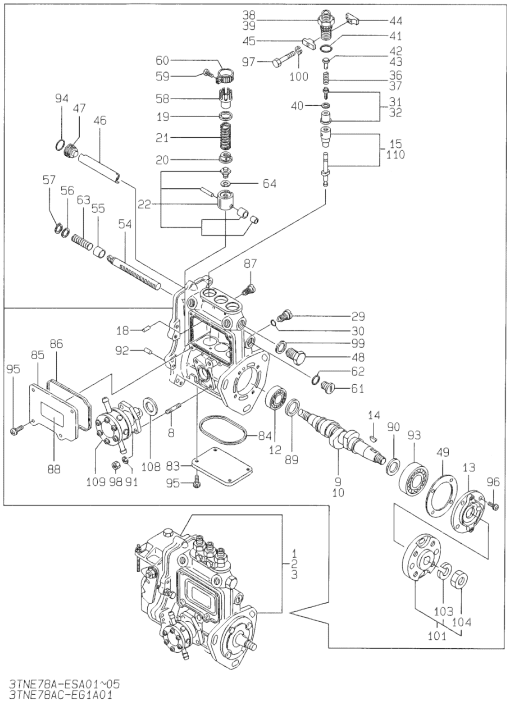
Fig.13. FUEL INJECTION PUMP



Remarks
(1) GOVERNOR(FIG.15) IS INCORPORATED
IN THIS FUEL INJECTION PUMP ASSY
(REF.NO.1,2,3,4).

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
84	2	129155-51710	GASKET	1	1	1			1		
84-1	2	129155-51711	GASKET	1	1	1			1	N	
(A=E46232) (B=E46510) (C=E46551)				(F=E25000)							
85	2	129155-51750	COVER	1	1	1			1		
85-1	2	129155-51751	COVER	1	1	1			1	N	
(A=E42431) (B=E42782) (C=E42321)				(F=E25000)							
86	2	129155-51760	GASKET	1	1	1			1		
87	2	129155-51790	STOOPER, RACK	1	1	1			1		
88	2	129156-51910	LABEL, CAUTION	1	1	1			1		
89	2	129155-51930	SPACER, T=3.25	1	1	1			1		
90	2	129155-51940	SPACER, T=1.5	1	1	1			1		
91	2	22217-060000	WASHER, SPRING 6	2	2	2			2		
92	2	22351-050010	PIN, SPRING 5.0X10	2	2	2			2		
93	2	24101-063034	BEARING, BALL 6303	1	1	1			1		
94	2	24341-000160	O-RING, 1AS16.0	1	1	1			1		
95	2	26022-050102	SCREW, M5X10	8	8	8			8		
95-1	2	26022-050122	SCREW, M5X12	8	8	8			8	N	
(A=E42431) (B=E42782) (C=E42321)				(F=E25000)							
96	2	26022-060162	SCREW, M6X16	4	4	4			4		
97	2	26116-050302	BOLT, M5X 30 PLATED	2	2	2			2		
98	2	26716-060002	NUT, M6	2	2	2			2		
99	2	22190-160002	WASHER, SEAL 16	1	1	1			1		
100	2	22217-050000	WASHER, SPRING 5	2	2	2			2		
106	2	129155-52050	GASKET	1	1	1			1		
107	2	129100-52100	PUMP ASSY, FUEL FEED	1	1	1			1		

Fig.14. FUEL INJECTION PUMP



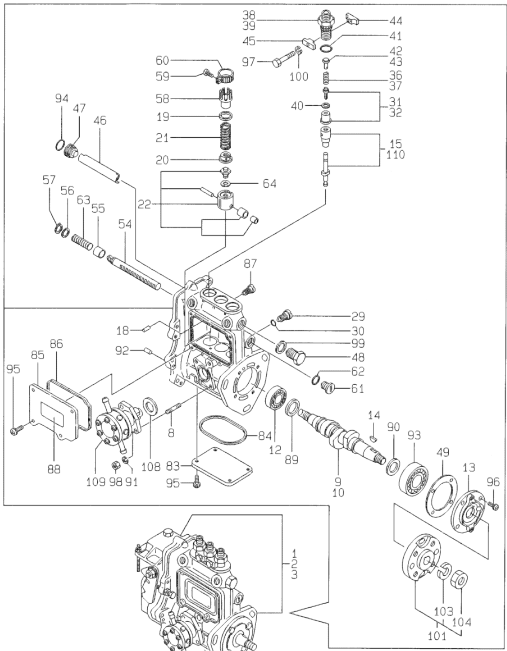
3TNE78A-ESA01~05
3TNE78AC-EG1A01

Remarks
(1) GOVERNOR(FIG.16) IS INCORPORATED
IN THIS FUEL INJECTION PUMP ASSY
(REF.NO.1,2,3).
REF.NO.1 3TNE78A-ESA01,04,05.
REF.NO.2 3TNE78A-ESA02,03.

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	719822-51460	PUMP ASSY, INJECTION				1				1
2	1	719822-51469	PUMP ASSY, INJECTION				1				1
2-1	1	719822-51460	PUMP ASSY, INJECTION				1			R	1
(D=E49366)											
3	1	719989-51461	PUMP ASSY, INJECTION					1			1
8	2	129155-51020	STUD				2	2			
9	2	129171-51040	CAMSHAFT				1				
10	2	119810-51040	CAMSHAFT					1			
12	2	129155-51050	BEARING, 17BM001D				1	1			
12-1	2	129155-51051	BEARING				1	1		N	
(D=E53032) (E=E51187)											
13	2	129208-51060	SUPPORT				1	1			
14	2	122710-51090	KEY				1	1			
15	2	119908-51100	PLUNGER ASSY				3				
15-1	2	129108-51100	PLUNGER ASSY				3			S	
(D=E40883)											
18	2	129155-51140	PIN				3	3			
19	2	174307-51170	RETAINER, SPRING A				3	3			
20	2	129155-51180	RETAINER, SPRING				3	3			
21	2	124950-51190	SPRING, PLUNGER				3	3			
22	2	129155-51200	TAPPET ASSY				3	3			
29	2	129155-51270	STOPPER, TAPPET				3	3			
30	2	129155-51280	O-RING, S6				3	3			
31	2	119908-51300	VALVE ASSY, DELIVERY				3				
32	2	128170-51300	VALVE ASSY, DELIVERY					3			
36	2	129573-51330	SPRING, DELIVERY				3				
37	2	129155-51320	SPRING, DELIVERY					3			
38	2	129573-51340	RETAINER				3				
39	2	129155-51340	RETAINER					3			
40	2	124550-51350	GASKET, DELIVERY				3	3			
41	2	124550-51370	O-RING				3	3			
42	2	129573-51370	STOPPER, VALVE				3				
43	2	129155-51370	STOPPER, VALVE					3			
44	2	129155-51380	STOPPER				2	2			
45	2	129155-51390	STOPPER				2	2			
46	2	129155-51400	DEFLECTOR				1	1			
47	2	129155-51410	BOLT				1	1			
48	2	129155-51420	PLUG, M16				1	1			
49	2	129155-51450	SHIM SET, ADJUSTING				1	1			
54	2	129155-51500	RACK, CONTROL				1	1			
55	2	129155-51521	BUSH, RACK				1	1			
56	2	129155-51530	SPACER				1	1			
57	2	129155-51540	CIRCLIP				1	1			
58	2	129155-51550	PINION, CONTROL				3	3			
59	2	122117-51560	SCREW				3	3			
59-1	2	129100-51570	SCREW				3	3		N	
(D=EXXX) (E=EXXX)											
60	2	174307-51560	PINION				3	3			
60-1	2	129100-51560	PINION				3	3		N	
(D=EXXX) (E=EXXX)											
61	2	129155-51570	PLUG, M12				1	1			

OCR10-M51800

Fig.14. FUEL INJECTION PUMP



3TNE78A-ESA01~05
3TNE78AC-EG1A01

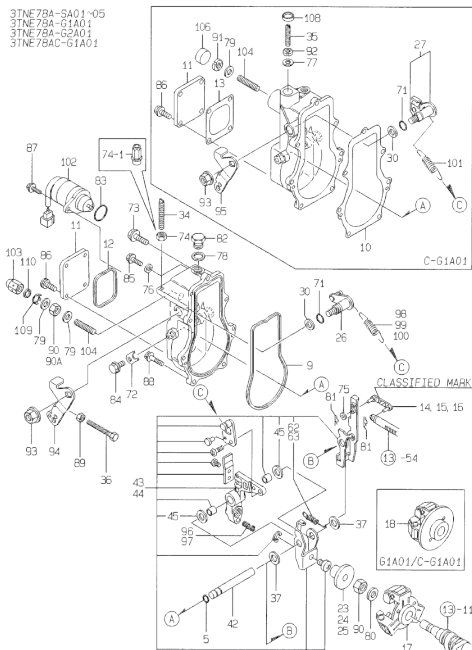
Remarks
(1) GOVERNOR(FIG.16) IS INCORPORATED
IN THIS FUEL INJECTION PUMP ASSY
(REF.NO.1,2,3).
REF.NO.1 3TNE78A-ESA01,04,05.
REF.NO.2 3TNE78A-ESA02,03.

(A)=3TNE78A-SA01 (D)=3TNE78A-ESA0
(B)=3TNE78AG1A01 (E)=3TNE78ACEG1A
(C)=3TNE78AG2A01 (F)=3TNE78ACG1A1

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
62	2	129155-51580	O-RING				1	1			
63	2	129155-51591	SPRING, RACK				1	1			
64	2	129155-51600	SHIM SET, ADJUSTING				3	3			
83	2	129155-51701	COVER				1	1			
84	2	129155-51711	GASKET				1	1			
85	2	129155-51751	COVER				1	1			
86	2	129155-51760	GASKET				1	1			
87	2	129155-51790	STOOPER, RACK				1	1			
88	2	129156-51910	LABEL, CAUTION				1	1			
89	2	129155-51930	SPACER, T=3.25				1	1			
90	2	129155-51940	SPACER, T=1.5				1	1			
91	2	22217-060000	WASHER, SPRING 6				2	2			
92	2	22351-050010	PIN, SPRING 5.0X10				2	2			
93	2	24101-063034	BEARING, BALL 6303				1	1			
94	2	24341-000160	O-RING, 1AS16.0				1	1			
95	2	26022-050122	SCREW, M5X12				8	8			
96	2	26022-060162	SCREW, M6X16				4	4			
97	2	26116-050302	BOLT, M5X 30 PLATED				2	2			
98	2	26716-060002	NUT, M6				2	2			
99	2	22190-160002	WASHER, SEAL 16				1	1			
100	2	22217-050000	WASHER, SPRING 5				2	2			
101	2	129208-54500	FLANGE ASSY				1	1			
103	3	22217-120000	WASHER, SPRING 12				1	1			
104	3	26716-120002	NUT, M12				1	1			
108	2	129155-52050	GASKET				1	1			
109	2	129100-52100	PUMP ASSY, FUEL FEED				1	1			
110	2	129108-51100	PLUNGER ASSY					3			

N:Old $\frac{N_{10}}{N_{10}}$ New, Q:Old $\frac{Q_{10}}{Q_{10}}$ New, R:Old $\frac{R_{10}}{R_{10}}$ New, S:Old $\frac{S_{10}}{S_{10}}$ New, W:Add, Z:Discontinued, F:Interchangeable by set, K:Q'ty Change
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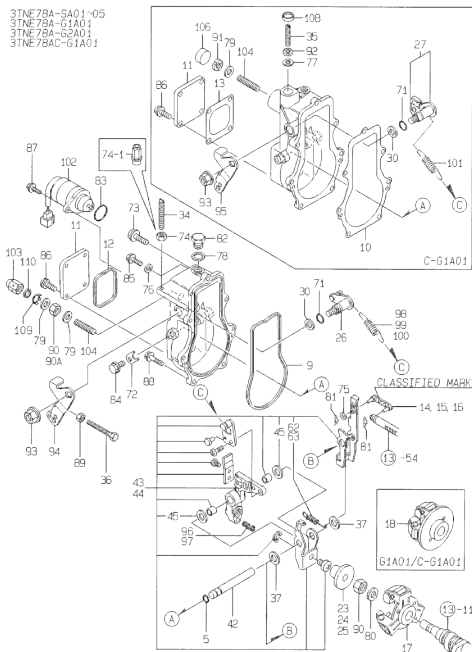
Fig.15. GOVERNOR



Remarks
(1) SELECTIVE PARTS: CERTAIN THE CLASSIFICATION MARK, THEN PLACE YOUR ORDER.(REFER TO ILLUSTRATION).
(2) SELECTIVE PARTS.
(3) REPAIR PART.
* THIS FIGURE(GOVERNOR ASSY)IS INCORPORATED IN THE FUEL INJECTION PUMP ASSY(FIG.13).

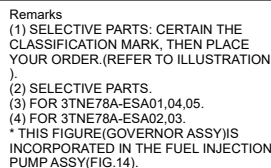
No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
5	2	129155-51280	O-RING, S6	1	1	1			1		
9	2	129052-61050	GASKET	1	1	1					
10	2	129116-61051	GASKET						1		
11	2	129052-61060	COVER, GOVERNOR CASE	1	1	1			1		
12	2	129052-61070	GASKET	1	1	1					
13	2	119988-61070	GASKET						1		
14	2	129155-61120	LINK, L=30 MARK 0	1	1	1			1	1	
15	2	129155-61130	LINK, L=31 MARK 1	1	1	1			1	1	
16	2	129155-61140	LINK, L=30.5 MARK 05	1	1	1			1	1	
17	2	129155-61201	WEIGHT ASSY,GOVERNOR	1	1	1					
17-1	2	129155-61202	WEIGHT ASSY,GOVERNOR	1	1	1					R
(A=E42431) (C=E42321)											
18	2	171488-61200	WEIGHT ASSY,GOVERNOR		1	1			1		
23	2	129155-61341	SLEEVE	1	1	1			1	2	
24	2	129155-61350	SLEEVE, L=24.9	1	1	1			1	2	
25	2	129155-61360	SLEEVE, L=25.2	1	1	1			1	2	
26	2	129100-61400	SHAFT ASSY	1	1	1					
27	2	119988-61400	SHAFT ASSY						1		
30	2	129155-61430	SPACER	1	1	1			1		
34	2	129155-61450	BOLT, LIMITER	1	1	1					
35	2	119988-61460	BOLT, LIMITER						1		
36	2	129155-61460	BOLT, IDLE	1	1	1			1		
37	2	129155-61480	SPACER ASSY	2	2	2			2		
42	2	129052-61390	SHAFT	1	1	1			1		
43	2	129052-61500	LEVER ASSY, GOVERNOR	1							
43-1	2	119908-61501	LEVER ASSY, GOVERNOR	1							R
(A=E42431) (C=E42321)											
44	2	129412-61500	LEVER ASSY, GOVERNOR		1	1			1		
44-1	2	129486-61501	LEVER ASSY, GOVERNOR		1	1			1	R	
(B=E42431) (C=E42321)											
45	3	174307-51700	SHIM SET	2	2	2			2		
62	3	129052-61540	SPRING, SET	1							
62-1	3	129486-61540	SPRING, SET	1						S	
(A=E42431) (C=E42321)											
63	3	119843-61540	SPRING, SET		1	1			1		
63-1	3	129486-61540	SPRING, SET		1	1			1	S	
(B=E42431) (C=E42321)											
71	2	129155-61830	O-RING, S10	1	1	1			1		
72	2	119660-61901	RETAINER, SHAFT	1	1	1			1		
73	2	129155-61950	BOLT	1	1	1					
74	2	124550-66370	NUT, M6	1	1	1					
74-1	2	129209-61370	NUT, M6	1	1	1				S	
(A=E42431) (B=E42791) (C=E42379)											
75	2	22117-040000	WASHER, 4	1	1	1			1		
76	2	22190-060003	SEAL WASER 6	1	1	1					
77	2	22190-060002	WASHER, SEAL 6						1		
78	2	22190-100002	WASHER, SEAL 10	1	1	1			1		
79	2	22190-120002	WASHER, SEAL 12	2	2	2			1		
80	2	22287-120000	WASHER, 12	1	1	1			1		
81	2	22372-040000	PIN, SNAP 4	2	2	2			2		
82	2	23887-100002	PLUG, 10	1	1	1			1		

Fig.15. GOVERNOR



Remarks
(1) SELECTIVE PARTS: CERTAIN THE CLASSIFICATION MARK, THEN PLACE YOUR ORDER.(REFER TO ILLUSTRATION).
(2) SELECTIVE PARTS.
(3) REPAIR PART.
* THIS FIGURE(GOVERNOR ASSY)IS INCORPORATED IN THE FUEL INJECTION PUMP ASSY(FIG.13).

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
83	2	24341-000280	O-RING, 1AS28.0	1	1	1			1		
83-1	2	158552-61900	O-RING	1	1	1			1	N	
		(A=EXXXXX) (B=EXXXXX) (C=EXXXXX)							(F=EXXXXX)		
84	2	26106-060102	BOLT, M6X 10 PLATED	1	1	1			1		
85	2	26106-060102	BOLT, M6X 10 PLATED	1	1	1					
86	2	26106-060102	BOLT, M6X 10 PLATED	4	4	4			4		
87	2	26106-060142	BOLT, M6X 14 PLATED	2	2	2			2		
88	2	26106-060202	BOLT, M6X 20 PLATED	6	6	6			6		
89	2	26756-060002	NUT, LOCK M6	1	1	1			1		
90	2	26776-120002	NUT, LOCK M12	2	2	2			1		
90-1	2	26776-120002	NUT, LOCK M12	1	1	1				K	
		(A=E51990) (B=E52119) (C=E52367)									
90A	2	26736-120002	NUT, M12	1	1	1				W	
		(A=E51990) (B=E52119) (C=E52367)									
91	2	119685-61940	NUT, M12						1		
92	2	119685-61950	NUT, M6						1		
93	1	26366-080002	NUT, M8	1	1	1			1		
94	1	129100-61440	LEVER, CONTROL	1		1					
95	1	171488-61440	LEVER, CONTROL		1				1		
96	1	129100-61650	SPRING, CONTROLLER	1							
97	1	129500-61650	SPRING, FUEL CONTROL		1	1			1		
98	1	171353-61700	SPRING, GOVERNOR	1							
99	1	129477-61720	SPRING, GOVERNOR		1						
100	1	129500-61700	SPRING, GOVERNOR			1					
101	1	129477-61710	SPRING, GOVERNOR						1		
102	1	119653-77950	SOLENOID, STOP	1	1	1			1		
103	1	26687-120002	NUT, CAP M12	1	1	1					
103-1	1	129209-61930	NUT, CAP	1	1	1				N	
		(A=E52599) (B=E52791) (C=E52379)									
104	1	129155-61470	BOLT, CONTROL	1	1	1			1		
106	1	119621-66610	PLUG, 22						1	3	
108	1	119621-66710	PLUG, 14						1	3	
109	1	129209-61970	PLATE	1	1	1				W	
		(A=E52599) (B=E52791) (C=E52379)									
110	1	23414-120016	GASKET, 12X1.0	1	1	1				W	
		(A=E52599) (B=E52791) (C=E52379)									

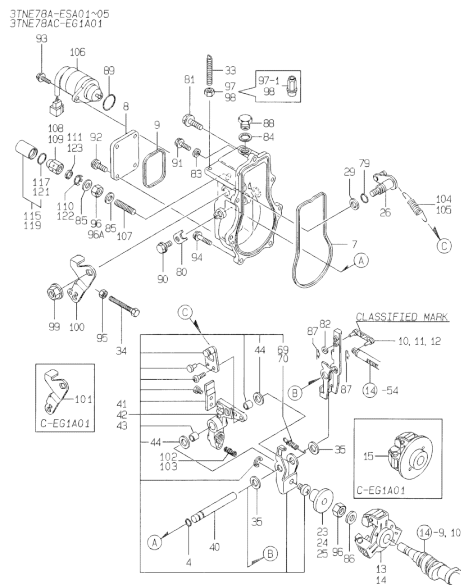


N:Old $\xrightarrow{\text{Yes}} \text{New}$, Q:Old $\xrightarrow{\text{No}} \text{New}$, R:Old $\xrightarrow{\text{Yes}} \text{New}$, S:Old $\xrightarrow{\text{No}} \text{New}$, W:Add, Z:Discontinued, F:Interchangeable by set, K:Q'ty Change

++ CONTINUE ++

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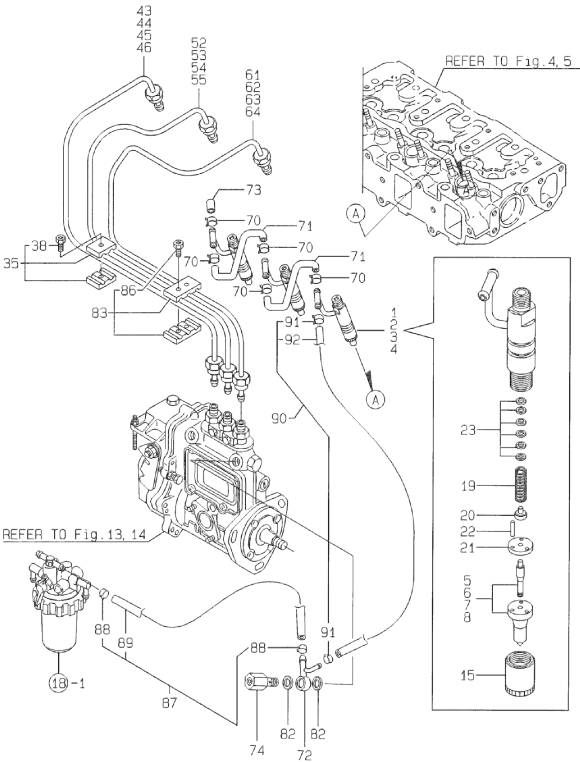
Fig.16. GOVERNOR



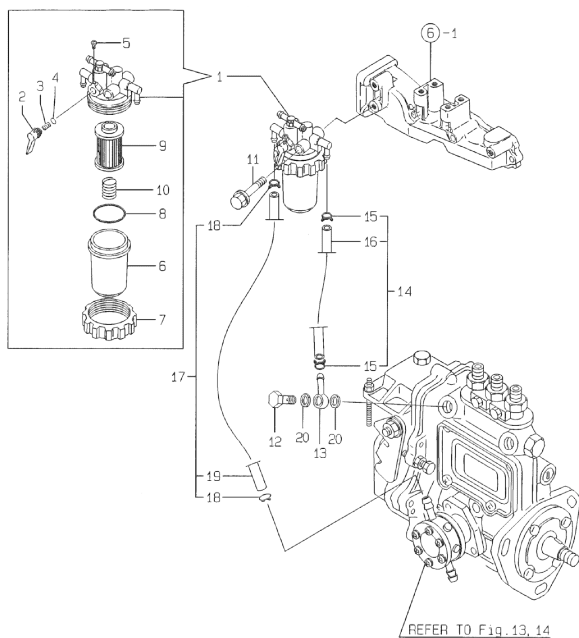
Remarks
(1) SELECTIVE PARTS: CERTAIN THE CLASSIFICATION MARK, THEN PLACE YOUR ORDER.(REFER TO ILLUSTRATION).
(2) SELECTIVE PARTS.
(3) FOR 3TNE78A-ESA01.04,05.
(4) FOR 3TNE78A-ESA02.03.
* THIS FIGURE(GOVERNOR ASSY)IS INCORPORATED IN THE FUEL INJECTION PUMP ASSY(FIG.14).

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
90	2	26106-060102	BOLT, M6X 10 PLATED	(D=E51844)	(E=E51187)		1	1			
91	2	26106-060102	BOLT, M6X 10 PLATED				1	1			
92	2	26106-060102	BOLT, M6X 10 PLATED				4	4			
93	2	26106-060142	BOLT, M6X 14 PLATED				2	2			
94	2	26106-060202	BOLT, M6X 20 PLATED				6	6			
95	2	26756-060002	NUT, LOCK M6				1	1			
96	2	26776-120002	NUT, LOCK M12				2	2			
96-1	2	26776-120002	NUT, LOCK M12				1	1			K
96A	2	26736-120002	NUT, M12	(D=E51844)	(E=E51187)		1	1			W
97	2	26756-060002	NUT, LOCK M6	(D=E51844)	(E=E51187)		1				S
97-1	2	129209-61370	NUT, M6	(D=E52518)			1				
98	2	129209-61370	NUT, M6					1			
99	2	26366-080002	NUT, M8				1	1			
100	2	129100-61440	LEVER, CONTROL				1				
101	2	171488-61440	LEVER, CONTROL					1			
102	2	129100-61650	SPRING, CONTROLLER				1				
103	2	129500-61650	SPRING, FUEL CONTROL					1			
104	2	171353-61700	SPRING, GOVERNOR				1				
105	2	129477-61710	SPRING, GOVERNOR					1			
106	2	119653-77950	SOLENOID, STOP				1	1			
107	2	120323-61470	BOLT, CONTROL				1	1			
108	2	129100-61930	NUT, CAP				1				
108-1	2	129209-61930	NUT, CAP				1				S
109	2	129209-61930	NUT, CAP	(D=E51844)				1			
110	2	129209-61970	PLATE					1			
111	2	23414-120016	GASKET, 12X1.0					1			
115	1	129209-61940	CASE ASSY					1			
117	2	24311-000150	O-RING, 1AP15.0					1			
119	1	129209-61940	CASE ASSY				1				W
121	2	24311-000150	O-RING, 1AP15.0	(D=E47132)			1				W
122	1	129209-61970	PLATE	(D=E47132)			1				W
123	1	23414-120016	GASKET, 12X1.0	(D=E51844)			1				W

Fig.17. FUEL INJECTION VALVE



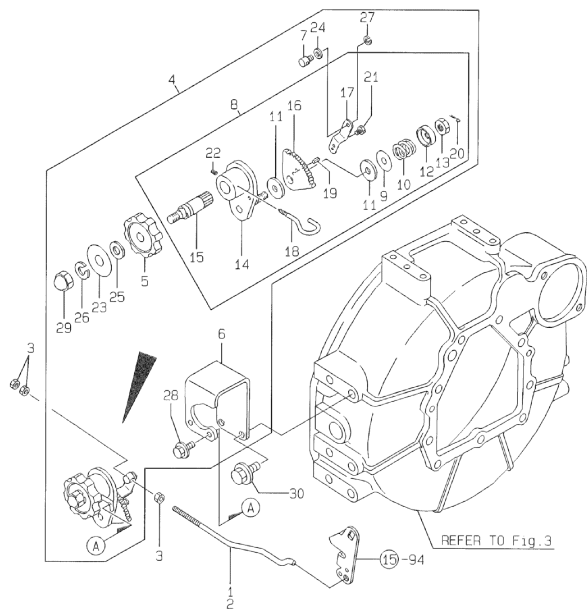
No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	729500-53200	VALVE ASSY,INJECTION	3							
2	1	719818-53100	VALVE ASSY,INJECTION		3			3	3		
3	1	729102-53100	VALVE ASSY,INJECTION			3					
4	1	719908-53100	VALVE ASSY,INJECTION				3				
4-1	1	729609-53200	VALVE ASSY,INJECTION				3				N
(D=E46889)											
5	2	129500-53050	VALVE ASSY,INJECTION	3							
6	2	119818-53000	VALVE ASSY,INJECTION		3			3	3		
7	2	129102-53000	VALVE ASSY,INJECTION			3					
8	2	119908-53000	VALVE ASSY,INJECTION				3				
8-1	2	129609-53100	VALVE ASSY,INJECTION				3				N
(D=E46889)											
15	2	114250-53080	NUT, NOZZLE D16.95	3	3	3	3	3	3	3	
19	2	114250-53120	SPRING, NOZZLE	3	3	3	3	3	3	3	
20	2	114250-53130	SEAT, SPRING	3	3	3	3	3	3	3	
21	2	114250-53140	PLATE	3	3	3	3	3	3	3	
22	2	114250-53210	PIN	6	6	6	6	6	6	6	
23	2	114250-53400	SHIM SET	3	3	3	3	3	3	3	
35	1	119305-59120	RETAINER, PIPE		1			1	1		
38	2	129150-59131	BOLT, M4X14		1				1	1	
43	1	119810-59810	PIPE ASSY, INJECTION	1							
44	1	119813-59812	PIPE ASSY, INJECTION		1			1	1		
45	1	119811-59810	PIPE ASSY, INJECTION			1					
46	1	119923-59810	PIPE ASSY, INJECTION				1				
52	1	119810-59820	PIPE ASSY, INJECTION	1							
53	1	119813-59821	PIPE ASSY, INJECTION		1			1	1		
54	1	119811-59820	PIPE ASSY, INJECTION			1					
55	1	119923-59820	PIPE ASSY, INJECTION				1				
61	1	119810-59830	PIPE ASSY, INJECTION	1							
62	1	119813-59831	PIPE ASSY, INJECTION		1			1	1		
63	1	119811-59830	PIPE ASSY, INJECTION			1					
64	1	119923-59831	PIPE ASSY, INJECTION				1				
64-1	1	119923-59832	PIPE ASSY, INJECTION				1				R
(D=E46889)											
70	1	124066-59100	CLIP, HOSE 8	5	5	5	5	5	5	5	
71	1	121250-59550	PIPE, FUEL D8X120	2	2	2	2	2	2	2	
72	1	119840-59570	JOINT	1	1	1	1	1	1	1	
73	1	129150-59580	CAP	1	1	1	1	1	1	1	
74	1	129100-59951	VALVE ASSY, CHECK	1	1	1	1	1	1	1	
82	1	22190-120002	WASHER, SEAL 12	2	2	2	2	2	2	2	
83	1	129150-59120	RETAINER, PIPE	1	1	1	1	1	1	1	
86	2	129150-59131	BOLT, M4X14	2	2	2	2	2	2	2	
87	1	129210-59130	PIPE ASSY, FUEL	1	1	1	1	1	1	1	
88	2	124766-59050	CLIP, HOSE 12	2	2	2	2	2	2	2	
89	2	105025-59750	PIPE, FUEL	1	1	1	1	1	1	1	
90	1	119840-59500	PIPE ASSY, RETURN	1	1	1	1	1	1	1	
91	2	124066-59100	CLIP, HOSE 8	2	2	2	2	2	2	2	
92	2	119840-59560	PIPE, FUEL RETURN	1	1	1	1	1	1	1	



				(A)=3TNE78A-SA01 (B)=3TNE78AG1A01 (C)=3TNE78AG2A01	(D)=3TNE78A-EA01 (E)=3TNE78ACG1A1 (F)=3TNE78ACG1A1						
No.	Lev.	Parts No.	Description	Qty						I R	
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	119833-55620	FILTER ASSY, FUEL	1	1	1	1	1	1		
2	2	119810-55340	LEVER	1	1	1	1	1	1		
3	2	104200-55330	SPRING, VALVE	1	1	1	1	1	1		
4	2	24311-240100	O-RING, 1AP10A	1	1	1	1	1	1		
5	2	104200-55750	SCREW, M4	1	1	1	1	1	1		
6	2	121254-55510	COVER	1	1	1	1	1	1		
7	2	110250-55610	RING, RETAINING	1	1	1	1	1	1		
8	2	102103-55520	O-RING	1	1	1	1	1	1		
9	2	119810-55650	ELEMENT	1	1	1	1	1	1		
10	2	121250-55620	SPRING	1	1	1	1	1	1		
11	1	26014-080702	BOLT, M8X 70	1	1	1	1	1	1		
12	1	103854-39140	BOLT, PIPE JOINT	1	1	1	1	1	1		
13	1	101304-59020	JOINT, PIPE 12	1	1	1	1	1	1		
14	1	129210-59040	PIPE ASSY, FUEL	1	1	1	1	1	1		
15	2	124766-59050	CLIP, HOSE 12	2	2	2	2	2	2		
16	2	129555-59510	PIPE, D13/7.5X180	1	1	1	1	1	1		
17	1	129210-59130	PIPE ASSY, FUEL	1	1	1	1	1	1		
18	2	124766-59050	CLIP, HOSE 12	2	2	2	2	2	2		
19	2	105025-59750	PIPE, FUEL	1	1	1	1	1	1		
20	1	22190-120002	WASHER, SEAL 12	2	2	2	2	2	2		

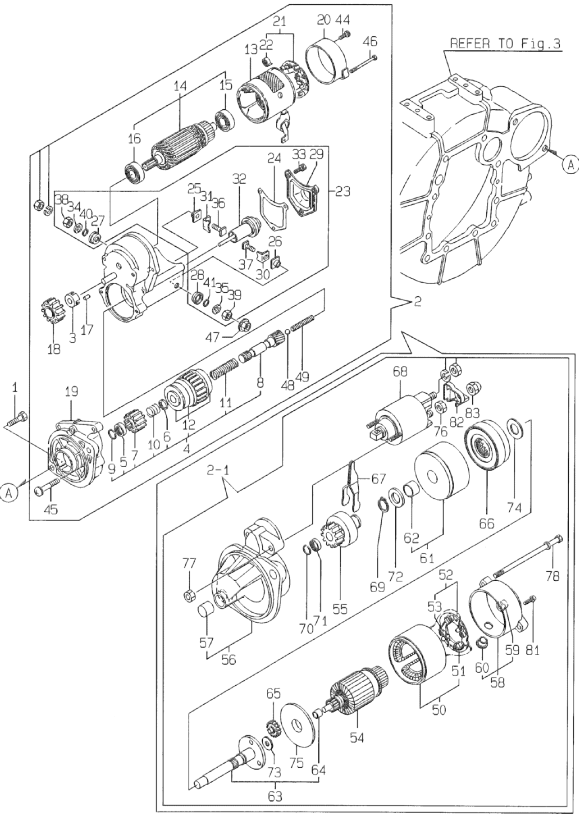
N:Old $\frac{\text{Yes}}{\text{No}}$ New. Q:Old $\frac{\text{No}}{\text{Yes}}$ New. R:Old $\frac{\text{Yes}}{\text{Yes}}$ New. S:Old $\frac{\text{No}}{\text{No}}$ New. W:Add. Z:Discontinued. F:Interchangeable by set. K:Q'ty Change

Fig.19. ENGINE CONTROL DEVICE



No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	119888-66120	LINK, ENGINE CONTROL	1		1	1				
2	1	119888-66150	LINK		1			1	1		
3	1	26756-050002	NUT, LOCK M5	3	3	3	3	3	3		
4	1	119888-66160	CONTROLLER ASSY	1	1	1	1	1	1		
5	2	126650-66020	HANDLE, REGULATOR	1	1	1	1	1	1		
6	2	119888-66110	BRACKET	1	1	1	1	1	1		
7	2	119888-66130	PIVOT	1	1	1	1	1	1		
8	2	171048-67010	CONTROLLER ASSY	1	1	1	1	1	1		
9	3	171102-66080	WASHER	1	1	1	1	1	1		
10	3	104200-66820	SPRING	1	1	1	1	1	1		
11	3	104200-66830	PLATE, FRICTION	2	2	2	2	2	2		
12	3	104200-66850	WASHER	1	1	1	1	1	1		
13	3	104200-66860	NUT	1	1	1	1	1	1		
14	3	171085-67100	BRACKET	1	1	1	1	1	1		
15	3	171085-67110	SHAFT, DRIVE	1	1	1	1	1	1		
16	3	171085-67120	GEAR	1	1	1	1	1	1		
17	3	171048-67130	LEVER	1	1	1	1	1	1		
18	3	171048-67140	STOPPER	1	1	1	1	1	1		
19	3	22351-020006	PIN, SPRING 2.0X 6	1	1	1	1	1	1		
20	3	22411-200150	COTTER PIN	1	1	1	1	1	1		
21	3	26116-060082	BOLT, M6X 8 PLATED	1	1	1	1	1	1		
22	3	26921-050122	SCREW, M5X12	1	1	1	1	1	1		
23	2	170064-67210	LABEL, HANDLE	1	1	1	1	1	1		
24	2	22117-060000	WASHER, 6	1	1	1	1	1	1		
25	2	22137-100000	WASHER, 10	1	1	1	1	1	1		
26	2	22217-100000	WASHER, SPRING 10	1	1	1	1	1	1		
27	2	22272-000050	RING, E- 5	1	1	1	1	1	1		
28	2	26106-060102	BOLT, M6X 10 PLATED	2	2	2	2	2	2		
29	2	26657-100002	NUT, CAP M10	1	1	1	1	1	1		
30	1	26106-080162	BOLT, M8X 16 PLATED	2	2	2	2	2	2		

Fig.20. STARTING MOTOR

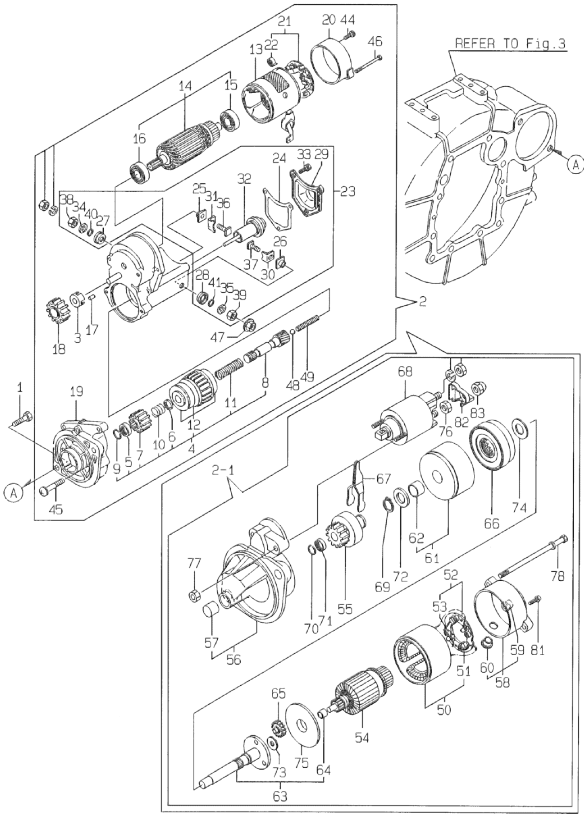


No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	26116-120252	BOLT, M12X 25 PLATED	2	2	2	2	2	2		
2	1	124520-77011	STARTER	1	1	1	1	1	1		
2-1	1	124520-77012	STARTER, P1.0	1	1	1	1	1	1	R	
3	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)					
	2	X0280630011	RETAINER	1	1	1	1	1	1	Z	
4	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)					
	2	X0280992761	CLUTCH KIT	1	1	1	1	1	1	Z	
5	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)					
	3	X0280210230	NUT	1	1	1	1	1	1	Z	
6	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)					
	3	X0283270140	RETAINER	1	1	1	1	1	1	Z	
7	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)					
	3	X0283712350	PINION, STARTER	1	1	1	1	1	1	Z	
8	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)					
	3	X0283810040	SHAFT	1	1	1	1	1	1	Z	
9	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)					
	3	X9490721080	RING	1	1	1	1	1	1	Z	
10	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)					
	3	X9491703371	SPRING, COIL	1	1	1	1	1	1	Z	
11	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)					
	3	X9491704260	SPRING	1	1	1	1	1	1	Z	
12	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)					
	3	121120-77930	CASE ASSY, STARTER	1	1	1	1	1	1	Z	
13	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)					
	2	X0281003751	YOKE ASSY	1	1	1	1	1	1	Z	
14	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)					
	2	X0282001531	ARMATURE ASSY	1	1	1	1	1	1	Z	
15	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)					
	3	X9491001360	BEARING	1	1	1	1	1	1	Z	
16	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)					
	3	X9491001860	BEARING, BALL	1	1	1	1	1	1	Z	
17	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)					
	2	X0283060061	ROLLER	5	5	5	5	5	5	Z	
18	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)					
	2	X0283711420	PINION	1	1	1	1	1	1	Z	
19	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)					
	2	X0284004910	HOUSING	1	1	1	1	1	1	Z	
20	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)					
	2	X0285040631	FRAME ASSY	1	1	1	1	1	1	Z	
21	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)					
	2	X0285100460	HOLDER ASSY, BRUSH	1	1	1	1	1	1	Z	
22	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)					
	3	X9491730461	SPRING	4	4	4	4	4	4	Z	
23	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)					
	2	X0534006460	SWITCH	1	1	1	1	1	1	Z	
24	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)					
	3	X0534040320	GASKET	1	1	1	1	1	1	Z	
25	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)					
	3	X0534490120	BUSH	1	1	1	1	1	1	Z	
26	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)					
	3	X0534490120	BUSH	1	1	1	1	1	1	Z	

N:Old, Q:New, R:Old, S:New, W:Add, Z:Discontinued, F:Interchangeable by set, K:Q'ty Change
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OCR10-M51800

Fig.20. STARTING MOTOR

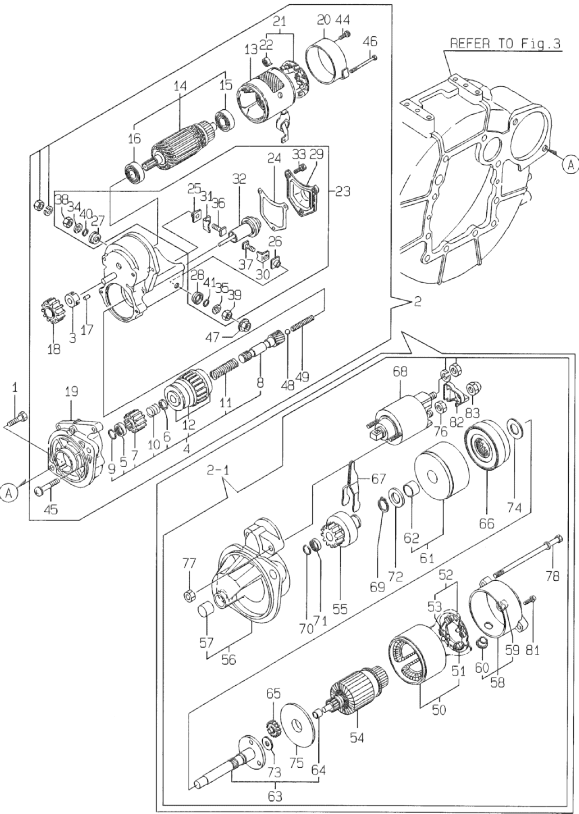


No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
27	3	X0534490230	BUSH	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)	Z	
				(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)		
28	3	X0534490230	BUSH	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)	Z	
				(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)		
29	3	X0535050620	COVER	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)	Z	
				(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)		
30	3	X0535130241	PLATE	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)	Z	
				(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)		
31	3	X0535130320	PLATE	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)	Z	
				(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)		
32	3	X0536600401	PLUNGER	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)	Z	
				(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)		
33	3	X9151005141	BOLT	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)	Z	
				(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)		
34	3	X9490170900	WASHER	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)	Z	
				(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)		
35	3	X9490170900	WASHER	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)	Z	
				(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)		
36	3	X9490441303	BOLT	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)	Z	
				(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)		
37	3	X9490441312	BOLT	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)	Z	
				(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)		
38	3	X9490502820	NUT	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)	Z	
				(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)		
39	3	X9490502820	NUT	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)	Z	
				(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)		
40	3	X9491402100	O-RING	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)	Z	
				(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)		
41	3	X9491402100	O-RING	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)	Z	
				(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)		
44	2	X9490071810	SCREW	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)	Z	
				(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)		
45	2	X9490071970	SCREW	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)	Z	
				(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)		
46	2	X9490471500	BOLT W/WASHER	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)	Z	
				(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)		
47	2	X9490561370	NUT	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)	Z	
				(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)		
48	2	X9491200240	BALL	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)	Z	
				(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)		
49	2	X9491703380	SPRING	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)	Z	
				(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)		
50	2	X0281007680	YOKE ASSY	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)	W	
				(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)		
51	3	X0280996180	STARTER KIT	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)	W	
				(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)		
52	2	X0285105190	HOLDER ASSY	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)	W	
				(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)		
53	3	X0285205030	SPRING	(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)	W	
				(A=E43186)	(B=E44198)	(C=E43507)	(D=E46889)	(E=E51187)	(F=E25000)		

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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OCR10-M51800

Fig.20. STARTING MOTOR



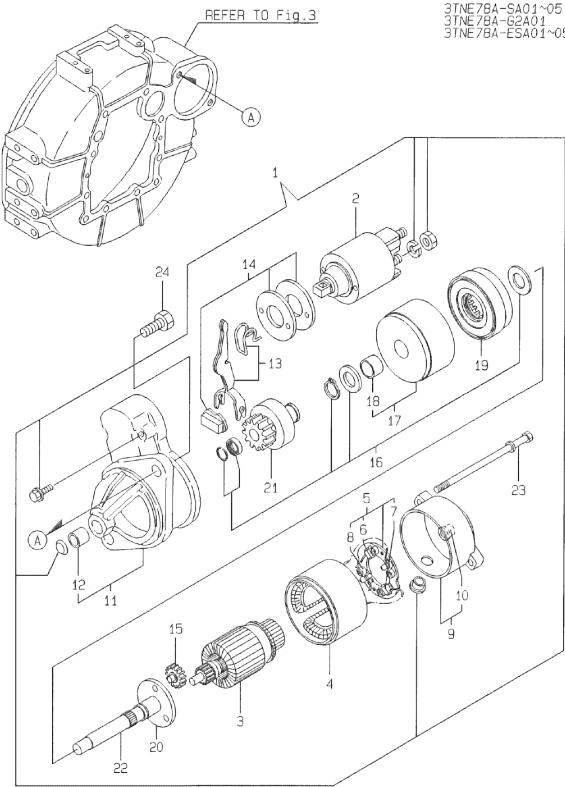
No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
54	2	X0282005871	ARMATURE ASSY	1	1	1	1	1	1	W	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889)			(E=E51187)			(F=E25000)			
55	2	X0283009160	CLUTCH ASSY	1	1	1	1	1	1	W	
56	2	X2284008090	HOUSING ASSY	1	1	1	1	1	1	W	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889)			(E=E51187)			(F=E25000)			
57	3	X9491050100	BEARING, NEEDLE	1	1	1	1	1	1	W	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889)			(E=E51187)			(F=E25000)			
58	2	X0285005770	FRAME ASSY	1	1	1	1	1	1	W	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889)			(E=E51187)			(F=E25000)			
59	3	X9491040990	BEARING	1	1	1	1	1	1	W	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889)			(E=E51187)			(F=E25000)			
60	3	X0280626010	COVER	1	1	1	1	1	1	W	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889)			(E=E51187)			(F=E25000)			
61	2	X0284105010	BEARING ASSY	1	1	1	1	1	1	W	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889)			(E=E51187)			(F=E25000)			
62	3	X9491034330	BEARING	1	1	1	1	1	1	W	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889)			(E=E51187)			(F=E25000)			
63	2	X0286105050	SHAFT ASSY	1	1	1	1	1	1	W	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889)			(E=E51187)			(F=E25000)			
64	3	X9491034320	BEARING	1	1	1	1	1	1	W	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889)			(E=E51187)			(F=E25000)			
65	2	X0286305010	GEAR	3	3	3	3	3	3	W	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889)			(E=E51187)			(F=E25000)			
66	2	X0286355010	GEAR	1	1	1	1	1	1	W	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889)			(E=E51187)			(F=E25000)			
67	2	X0287405140	LEVER	1	1	1	1	1	1	W	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889)			(E=E51187)			(F=E25000)			
68	2	X0534007800	SWITCH ASSY	1	1	1	1	1	1	W	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889)			(E=E51187)			(F=E25000)			
69	2	X9055715000	RING	1	1	1	1	1	1	W	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889)			(E=E51187)			(F=E25000)			
70	2	X9490721360	RING	1	1	1	1	1	1	W	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889)			(E=E51187)			(F=E25000)			
71	2	X0280210331	NUT	1	1	1	1	1	1	W	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889)			(E=E51187)			(F=E25000)			
72	2	X9490138110	WASHER	1	1	1	1	1	1	W	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889)			(E=E51187)			(F=E25000)			
73	2	X9490138090	WASHER	1	1	1	1	1	1	W	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889)			(E=E51187)			(F=E25000)			
74	2	X9490138100	WASHER	1	1	1	1	1	1	W	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889)			(E=E51187)			(F=E25000)			
75	2	X0284525010	PLATE	1	1	1	1	1	1	W	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889)			(E=E51187)			(F=E25000)			
76	2	X9490562360	NUT	1	1	1	1	1	1	W	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889)			(E=E51187)			(F=E25000)			
77	2	X9490560750	NUT	2	2	2	2	2	2	W	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889)			(E=E51187)			(F=E25000)			
78	2	X9490423520	BOLT, THROUGH	2	2	2	2	2	2	W	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889)			(E=E51187)			(F=E25000)			
81	2	X9490065670	SCREW, M4X6	2	2	2	2	2	2	W	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889)			(E=E51187)			(F=E25000)			

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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[illegible]

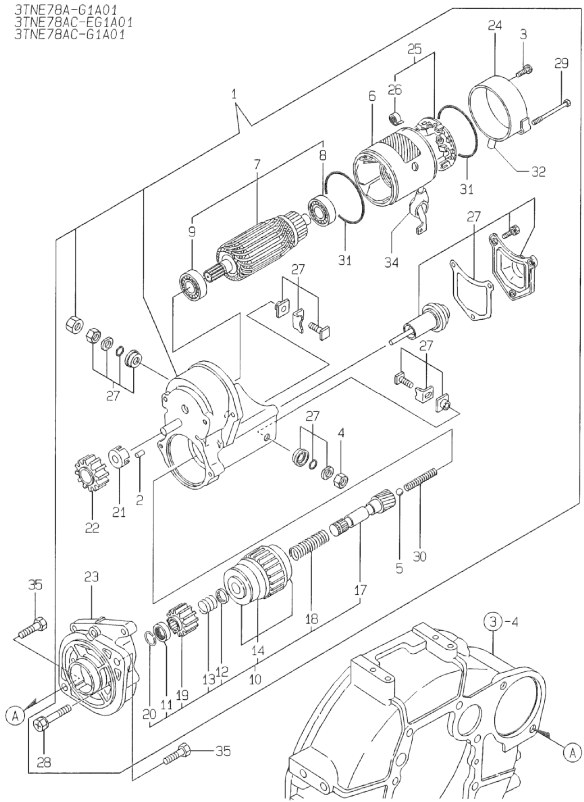
N:Old $\frac{\text{Yes}}{\text{No}}$ New. Q:Old $\frac{\text{No}}{\text{Yes}}$ New. R:Old $\frac{\text{Yes}}{\text{Yes}}$ New. S:Old $\frac{\text{No}}{\text{No}}$ New. W:Add. Z:Discontinued. F:Interchangeable by set. K:Qty Change

Fig.21. STARTING MOTOR(COLD DISTRICT)



No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129698-77010	STARTER, 12V1.2KW	1		1	1				
2	2	129698-77020	SWITCH ASSY	1		1	1				
3	2	129698-77100	ARMATURE ASSY	1		1	1				
4	2	129698-77110	YOKE ASSY	1		1	1				
5	2	129698-77120	HOLDER ASSY, BRUSH	1		1	1				
6	3	129698-77140	BRUSH SET	1		1	1				
7	3	129698-77130	BRUSH	2		2	2				
8	3	129698-77150	SPRING, BRUSH	4		4	4				
9	2	129698-77161	COVER ASSY	1		1	1				
10	3	129698-77170	BEARING	1		1	1				
11	2	129698-77260	CASE ASSY	1		1	1				
12	3	X2114535200	METAL, STARTER	1		1	1				
13	2	129698-77270	LEVER SET, SHIFT	1		1	1				
14	2	129698-77280	COVER KIT	1		1	1				
15	2	129698-77240	GEAR	3		3	3				
16	2	129698-77250	WASHER SET	1		1	1				
17	2	129698-77180	BRACKET	1		1	1				
18	3	129698-77190	BRACKET	1		1	1				
19	2	129698-77200	GEAR, INTERNAL	1		1	1				
20	2	129698-77210	BRACKET	1		1	1				
21	2	129698-77220	PINION ASSY	1		1	1				
22	2	129698-77230	SHAFT	1		1	1				
23	2	124195-77770	BOLT, THROUGH	2		2	2				
24	1	26116-120252	BOLT, M12X 25 PLATED	2		2	2				

Fig.22. STARTING MOTOR(COLD DISTRICT)

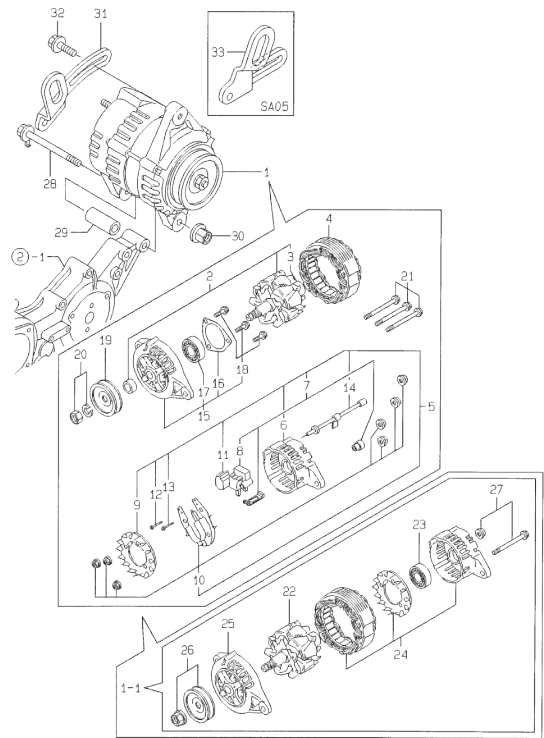


(A)=3TNE78A-SA01
(B)=3TNE78AG1A01
(C)=3TNE78AG2A01
(D)=3TNE78A-ESA0
(E)=3TNE78ACEG1A
(F)=3TNE78ACG1A1

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129129-77010	STARTER ASSY	1				1	1		
2	2	X0283060061	ROLLER		5			5	5		
3	2	129129-77460	SCREW		2			2	2		
4	2	X9490561370	NUT		1			1	1		
5	2	X9491200240	BALL		1			1	1		
6	2	129129-77210	YOKE ASSY		1			1	1		
7	2	129129-77220	ARMATURE ASSY		1			1	1		
8	3	129129-77230	BEARING		1			1	1		
9	3	129129-77240	BEARING		1			1	1		
10	2	129129-77250	STARTER		1			1	1		
11	3	X0280210230	NUT		1			1	1		
12	3	X0283270140	RETAINER		1			1	1		
13	3	X9491703371	SPRING, COIL		1			1	1		
14	3	129129-77390	CLUTCH ASSY		1			1	1		
17	3	129129-77400	SHAFT		1			1	1		
18	3	129129-77410	SPRING, COIL		1			1	1		
19	3	129129-77420	PINION, STARTER		1			1	1		
20	3	129129-77430	RING		1			1	1		
21	2	129129-77260	RETAINER		1			1	1		
22	2	129129-77270	PINION		1			1	1		
23	2	129129-77280	HOUSING		1			1	1		
24	2	129129-77290	FRAME		1			1	1		
25	2	129129-77300	HOLDER ASSY		1			1	1		
26	3	X9491730461	SPRING		4			4	4		
27	2	129129-77310	SWITCH ASSY		1			1	1		
28	2	129129-77320	BOLT		2			2	2		
29	2	129129-77330	BOLT		2			2	2		
30	2	129129-77340	SPRING		1			1	1		
31	2	129129-77350	O-RING		2			2	2		
32	2	129129-77362	COVER		1			1	1		
34	2	129129-77380	CAP		1			1	1		
35	1	26116-120252	BOLT, M12X 25 PLATED		2			2	2		

OCR10-M51800

Fig.23. GENERATOR



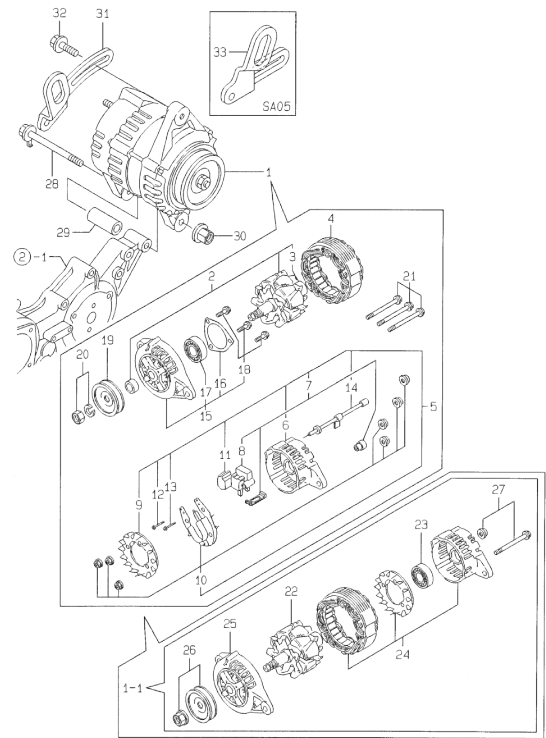
Remarks
(1) FOR 3TNE78A-SA01,02,03,04.
(2) FOR 3TNE78A-SA05.
(3) FOR 3TNE78A-SA/ESA04.

(A)=3TNE78A-SA01
(B)=3TNE78AG1A01
(C)=3TNE78AG2A01
(D)=3TNE78A-ESA0
(E)=3TNE78ACG1A
(F)=3TNE78ACG1A1

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	119836-77200	GENERATOR	1	1	1	1	1	1		
1-1	1	119836-77201	GENERATOR	1	1	1	1	1	1	R	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889) (E=E51186) (F=E25000)									
2	2	119836-77700	ROTOR ASSY	1	1	1	1	1	1	Z	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889) (E=E51186) (F=E25000)									
3	3	119836-77850	BALL BEARING	1	1	1	1	1	1	Z	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889) (E=E51186) (F=E25000)									
4	2	119836-77710	STATOR ASSY	1	1	1	1	1	1	Z	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889) (E=E51186) (F=E25000)									
5	2	119836-77721	COVER ASSY, REAR	1	1	1	1	1	1	Z	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889) (E=E51186) (F=E25000)									
6	3	119836-77730	COVER, REAR	1	1	1	1	1	1	Z	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889) (E=E51186) (F=E25000)									
7	3	119836-77741	BRUSH ASSY,REGULATOR	1	1	1	1	1	1	Z	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889) (E=E51186) (F=E25000)									
8	4	119836-77750	BRUSH ASSY	1	1	1	1	1	1	Z	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889) (E=E51186) (F=E25000)									
9	3	119836-77760	GUIDE, FAN SIDE	1	1	1	1	1	1	Z	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889) (E=E51186) (F=E25000)									
10	3	119836-77770	DIODE ASSY	1	1	1	1	1	1	Z	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889) (E=E51186) (F=E25000)									
11	3	119836-77780	CONDENSER	1	1	1	1	1	1	Z	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889) (E=E51186) (F=E25000)									
12	3	119836-77871	BOLT (1)	1	1	1	1	1	1	Z	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889) (E=E51186) (F=E25000)									
13	3	119836-77880	BOLT (2)	1	1	1	1	1	1	Z	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889) (E=E51186) (F=E25000)									
14	3	119836-77890	WIRE ASSY, LEAD	1	1	1	1	1	1	Z	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889) (E=E51186) (F=E25000)									
15	2	119836-77790	COVER ASSY, FRONT	1	1	1	1	1	1	Z	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889) (E=E51186) (F=E25000)									
16	3	119836-77800	RETAINER, BEARING	1	1	1	1	1	1	Z	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889) (E=E51186) (F=E25000)									
17	3	119836-77840	BALL BEARING	1	1	1	1	1	1	Z	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889) (E=E51186) (F=E25000)									
18	3	119836-77860	SCREW KID	1	1	1	1	1	1	Z	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889) (E=E51186) (F=E25000)									
19	2	119836-77810	PULLEY	1	1	1	1	1	1	Z	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889) (E=E51186) (F=E25000)									
20	2	119836-77820	NUT ASSY, PULLEY	1	1	1	1	1	1	Z	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889) (E=E51186) (F=E25000)									
21	2	119836-77830	BOLT, THROUGH	1	1	1	1	1	1	Z	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889) (E=E51186) (F=E25000)									
22	2	129612-77700	ROTOR ASSY	1	1	1	1	1	1	W	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889) (E=E51186) (F=E25000)									
23	2	129612-77710	BEARING, BALL	1	1	1	1	1	1	W	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889) (E=E51186) (F=E25000)									
24	2	119836-77920	BRACKET ASSY	1	1	1	1	1	1	W	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889) (E=E51186) (F=E25000)									
25	2	129612-77730	BRACKET ASSY, FILTER	1	1	1	1	1	1	W	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889) (E=E51186) (F=E25000)									

N:Old $\frac{N_{10}}{100}$ New, Q:Old $\frac{Q_{10}}{100}$ New, R:Old $\frac{R_{10}}{100}$ New, S:Old $\frac{S_{10}}{100}$ New, W:Add, Z:Discontinued, F:Interchangeable by set, K:Q'ty Change
++ CONTINUE ++
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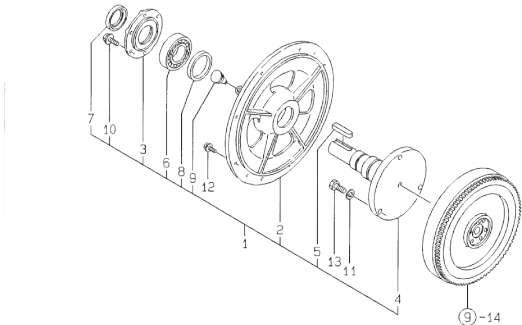
Fig.23. GENERATOR



Remarks
(1) FOR 3TNE78A-SA01,02,03,04.
(2) FOR 3TNE78A-SA05.
(3) FOR 3TNE78A-SA/ESA04.

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
26	2	129612-77740	PULLEY	1	1	1	1	1	1	W	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889) (E=E51186) (F=E25000)									
27	2	129612-77750	SCREW KIT	1	1	1	1	1	1	W	
		(A=E43186) (B=E44198) (C=E43507) (D=E46889) (E=E51186) (F=E25000)									
28	1	129136-77251	BOLT, M8X110	1	1	1	1	1	1		
29	1	119820-77340	PIECE, DISTANCE	1	1	1	1	1	1		
30	1	129612-77260	NUT, ALTERNATOR	1	1	1	1	1	1		
31	1	170122-77330	ADJUSTER	1	1	1	1	1	1		1
31-1	1	119867-77331	ADJUSTER	1			1			N	3
		(A=EXXX.) (D=EXXX.)									
32	1	119810-77340	BOLT, ADJUSTER	1	1	1	1	1	1		
33	1	170122-77349	ADJUSTER	1							2

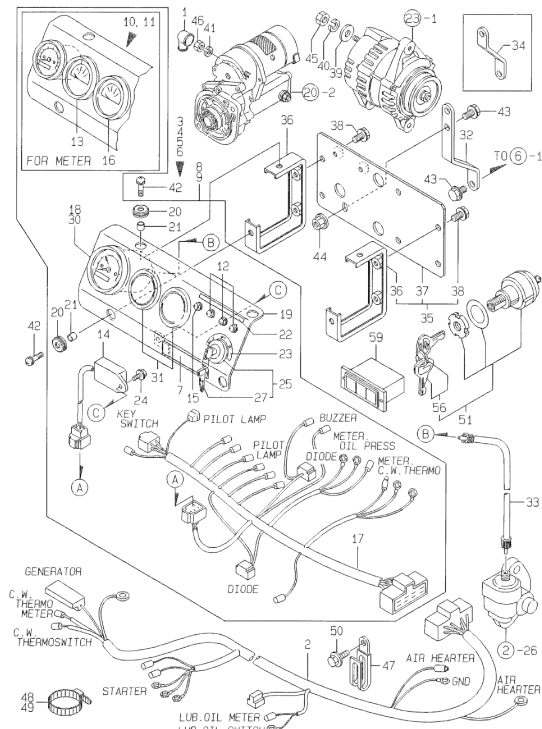
Fig.24. OUTPUT SHAFT



Remarks
* FOR 3TNE78A-SA01.

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	119888-89100	SHAFT, STUB	1							
2	2	119888-89110	HOUSING, BEARING	1							
3	2	171048-89120	CASE, OIL SEAL	1							
4	2	119888-89210	SHAFT	1							
5	2	22512-100700	KEY, 10X 70	1							
6	2	24151-222090	BEARING, 22209	1							
7	2	24421-456209	SEAL, OIL TC456209	1							
8	2	24421-557209	SEAL, OIL TC557209	1							
9	2	24754-320020	CUP, GREASE 32X1/4	1							
10	2	26106-080202	BOLT, M8X 20 PLATED	6							
11	1	22217-120000	WASHER, SPRING 12	3							
12	1	26106-100222	BOLT, M10X 22 PLATED	8							
13	1	26206-120352	BOLT, M12X 35 PLATED	3							

Fig.25. PANEL



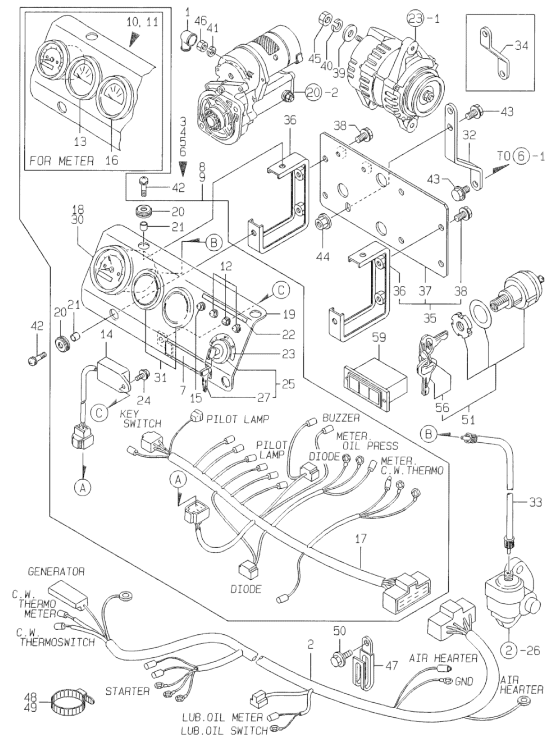
Remarks
(1) WITH C.W.THERMOMETER(REF.NO.13,
P/# 171010-77850) & PRESSURE
GAUGE(REF.NO.16,P/# 171090-91010)

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	119773-77030	COVER	1	1	1	1	1	1		
1-1	1	124550-77030	COVER, TERMINAL	1	1	1	1	1	1		R
		(A=E0000) (B=E0000) (C=E0000) (D=E0000) (E=E0000) (F=E0000)									
2	1	119888-91022	HARNESS, WIRE	1	1	1	1	1	1		
3	1	119888-91101	PANEL ASSY	1	1	1	1	1	1		
4	1	119888-91301	PANEL ASSY, INSTRUM		1			1	1		
5	1	119888-91201	PANEL ASSY	1		1	1				1
6	1	119888-91311	PANEL ASSY		1			1	1		
7	2	104507-07190	LABEL, YANMAR	1	1	1	1	1	1		
8	2	170121-91100	PANEL ASSY	1		1	1				
9	2	119888-91320	PANEL ASSY		1			1	1		
10	2	119888-91220	PANEL ASSY	1		1	1				
11	2	119888-91330	PANEL ASSY		1			1	1		1
12	3	124732-77720	LAMP, CHARGING	3	3	3	3	3	3		
13	3	171010-77850	THERMOSTAT	1	1	1	1	1	1		1
14	3	128300-77920	TIMER	1	1	1	1	1	1		
15	3	124559-77971	LAMP, PILOT	1	1	1	1	1	1		
16	3	171090-91010	GAUGE	1	1	1	1	1	1		1
17	3	119888-91031	HARNESS, WIRE	1	1	1	1	1	1		
18	3	171080-91100	TACHOMETER	1		1	1				
18-1	3	171080-91101	TACHOMETER	1		1	1				N
		(A=E52470) (C=E52379) (D=E52518)									
19	3	119888-91110	BODY, PANEL	1	1	1	1	1	1		
20	3	121400-91520	ABSORBER	4	4	4	4	4	4		
21	3	121400-91530	SPACER	4	4	4	4	4	4		
22	3	119888-91610	LABEL, CW & OIL LAMP	1	1	1	1	1	1		
23	3	119888-91620	LABEL, KEY SWITCH	1	1	1	1	1	1		
24	3	26106-060102	BOLT, M6X 10 PLATED	1	1	1	1	1	1		
25	3	933110-00100	SWITCH ASSY, STARTER	1	1	1	1	1	1		
27	4	933110-00301	KEY ASSY	2	2	2	2	2	2		
30	3	171082-91100	TACHOMETER		1			1	1		
31	3	124770-91220	COVER	2	2						
32	1	119822-91140	RETAINER, PANEL	1		1	1				
33	1	124701-91140	CABLE, L=985	1	1	1	1	1	1		
34	1	129608-91140	RETAINER, PANEL		1			1	1		
35	1	129608-91151	BRACKET ASSY	1	1	1	1	1	1		
36	2	119888-91120	SUPPORT	2	2	2	2	2	2		
37	2	129608-91131	BRACKET, PANEL	1	1	1	1	1	1		
37-1	2	129608-91132	BRACKET, PANEL	1	1	1	1	1	1		N
		(A=E40496) (B=E40547) (C=E41107) (D=E40883) (E=E51187) (F=E25000)									
38	2	26106-080122	BOLT, M8X 12 PLATED	4	4	4	4	4	4		
39	1	22117-050000	WASHER, 5	1	1	1	1	1	1		
40	1	22217-050000	WASHER, SPRING 5	1	1	1	1	1	1		
41	1	22217-080000	WASHER, SPRING 8	1	1	1	1	1	1		
42	1	26033-060202	SCREW M 6X 20	4	4	4	4	4	4		
43	1	26106-080162	BOLT, M8X 16 PLATED	2	2	2	2	2	2		
44	1	26366-080002	NUT, M8	1	1	1	1	1	1		
44-1	1	26366-080002	NUT, M8	1	1	1	1	1	1		N
		(A=E0000) (B=E0000) (C=E0000) (D=E0000) (E=E0000) (F=E0000)									
45	1	26716-050002	NUT, M5	1	1	1	1	1	1		
46	1	26756-080002	NUT, LOCK M8	1	1	1	1	1	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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OCR10-M51800

Fig.25. PANEL



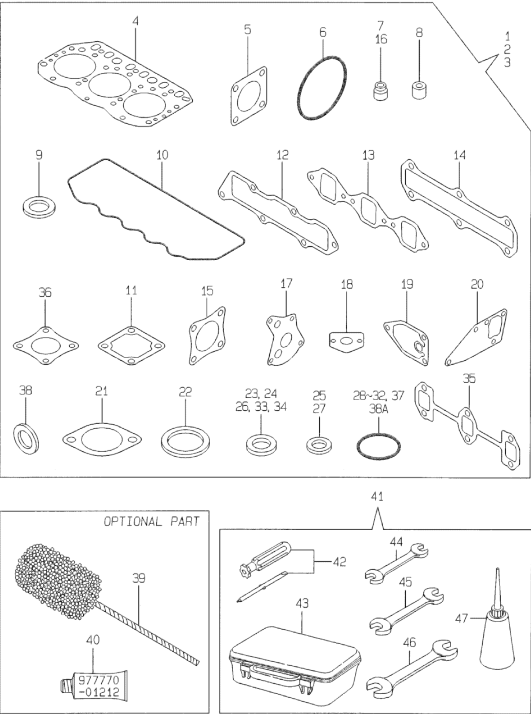
Remarks
(1) WITH C.W.THERMOMETER(REF.NO.13,
P/# 171010-77850) & PRESSURE
GAUGE(REF.NO.16,P/# 171090-91010)

(A)=3TNE78A-SA01
(B)=3TNE78AG1A01
(C)=3TNE78AG2A01
(D)=3TNE78A-ESA0
(E)=3TNE78ACEG1A
(F)=3TNE78ACG1A1

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
47	1	194180-51640	CLAMP, HARNESS	1	1	1	1	1	1		
48	1	121750-59890	BAND, 140	1	1	1	1	1	1		
49	1	121750-59890	BAND, 140	1	1	1	1	1	1		
50	1	26106-100122	BOLT, M10X 12 PLATED	1	1	1	1	1	1		
51	1	194215-52110	SWITCH, STARTING			1					
56	2	194155-52160	KEY ASSY			1					
59	1	170038-91310	LAMP			1					

N:Old $\frac{YES}{NO}$ New, Q:Old $\frac{RIS}{YES}$ New, R:Old $\frac{YES}{YES}$ New, S:Old $\frac{RIS}{NO}$ New, W:Add, Z:Discontinued, F:Interchangeable by set, K:Q'ty Change
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Fig.26. GASKET SET



Remarks
(1) OPTIONAL PART.

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	719822-92620	GASKET SET	1			1				1
2	1	719822-92630	GASKET SET		1			1	1		1
3	1	719822-92640	GASKET SET			1					1
4	2	119818-01330	GASKET, HEAD	1	1	1	1	1	1		
5	2	171353-26081	GASKET	1			1				
6	2	121850-51960	O-RING	1	1	1	1	1	1		
7	2	124160-11340	SEAL, VALVE STEM	3	3	3	3	3	3		
8	2	119625-11870	PROTECTOR, NOZZLE	3	3	3	3	3	3		
8-1	2	119625-11872	PROTECTOR, NOZZLE	3	3	3	3	3	3		R
(A=E50198) (B=E51062) (C=E50644) (D=E50642) (E=E51186) (F=E25000)											
9	2	119625-11880	SEAT, NOZZLE	3	3	3	3	3	3		
10	2	119865-11310	GASKET, BONNET	1	1	1	1	1	1		
11	2	129150-77511	GASKET	1	1	1	1	1	1		
12	2	119813-12110	GASKET, MANIFOLD			1		1	1		
13	2	119810-12111	GASKET, MANIFOLD	1		1	1				
14	2	119813-13110	GASKET	1	1			1	1	1	
15	2	121000-13201	GASKET, SILENCER	1	1	1	1	1	1		
15-1	2	124701-11911	GASKET, SILENCER	1	1	1	1	1	1	1	R
(A=E41747) (B=E42232) (C=E42066) (D=E43005) (E=E51186) (F=E25000)											
16	2	124950-11340	SEAL, VALVE STEM	3	3	3	3	3	3		
17	2	129150-32020	GASKET, PUMP	1	1	1	1	1	1		
18	2	129150-35041	GASKET	1	1	1	1	1	1		
19	2	129150-35111	GASKET	1	1	1	1	1	1		
20	2	129150-42020	GASKET, WATER PUMP	1	1	1	1	1	1		
20-1	2	129486-42050	GASKET, WATER PUMP	1	1	1	1	1	1	1	N
(A=E43002) (B=E43062) (C=E43507) (D=E43005) (E=E51186) (F=E25000)											
21	2	129795-49551	GASKET	1	1	1	1	1	1		
22	2	129150-49811	GASKET, THERMOSTAT	1	1	1	1	1	1		
23	2	22190-100002	WASHER, SEAL 10	2	2	2	2	2	2		
24	2	22190-080002	WASHER, SEAL 6	7	7	7	7	7	7		
25	2	129150-49360	GASKET	1	1	1	1	1	1		
26	2	22190-120002	WASHER, SEAL 12	4	4	4	4	4	4		
27	2	124465-44950	GASKET, 16	2	2	2	2	2	2		
28	2	24311-000120	O-RING, 1AP12.0	3	3	3	3	3	3		
29	2	24311-000160	O-RING, 1AP16.0	3	3	3	3	3	3		
30	2	24311-000320	O-RING, 1AP32.0	2	2	2	2	2	2		
31	2	24341-000240	O-RING, 1AS24.0	2	2	2	2	2	2		
32	2	24341-000500	O-RING, 1AS50.0	1	1	1	1	1	1		
33	2	22190-080003	WASHER, SEAL 8	5				5			
34	2	22190-220002	WASHER, SEAL 22	1	1	1	1	1	1		
35	2	119810-13110	GASKET	1		1	1				
36	2	124701-11911	GASKET, SILENCER	1	1	1	1	1	1		
37	2	24321-000850	O-RING, 1AG85.0	1				1			
38	2	129155-52050	GASKET	1	1	1	1	1	1		
38A	2	119609-32040	O-RING, P16	2	2	2	2	2	2	2	W
(A=E52268) (B=E52282) (C=E52367) (D=E52265) (E=E51187) (F=E25000)											
39	1	129400-92420	HONE	1	1	1	1	1	1	1	1
40	1	977770-01212	GASKET, LIQUID	1	1	1	1	1	1	1	1
41	1	721400-92102	BOX ASSY, TOOL	1	1	1	1	1	1	1	
42	2	104200-92350	DRIVER, SCREW	1	1	1	1	1	1	1	
43	2	104200-92600	BOX, TOOL	1	1	1	1	1	1	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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Fig.26. GASKET SET



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

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171048-67140	19	18
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171082-91100	25	30
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171085-67110	19	15
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