

0CD10-M25601EN

PREFACE

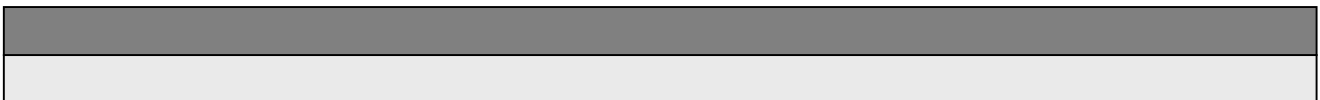
1. This Parts Catalog is the 1st edition of 4TNA78L-RNK Diesel Engine for HANIX IND..

Pub. No. : 000Y00D2561

Published : August, 1991

2. Model name

Engine model	Vehicle		Vehicle made by
	Products	Model name	
4TNA78L-RNK	—	—	HANIX IND.



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.

REF.	LEV.	PARTS NO.	DESCRIPTION	Q'TY						I	R
				(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 $\begin{matrix} \leftarrow \text{Yes} \\ \text{No} \rightarrow \end{matrix}$ New	New Part is interchangeable for Old Part but Old Part is not interchangeable for New Part.
Q	Old $\begin{matrix} \leftarrow \text{No} \\ \text{Yes} \rightarrow \end{matrix}$ New	New Part is not interchangeable for Old Part but Old Part is interchangeable for New Part.
R	Old $\begin{matrix} \leftarrow \text{Yes} \\ \text{Yes} \rightarrow \end{matrix}$ New	New/ Old Parts are both interchangeable.
S	Old $\begin{matrix} \leftarrow \text{No} \\ \text{No} \rightarrow \end{matrix}$ 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.

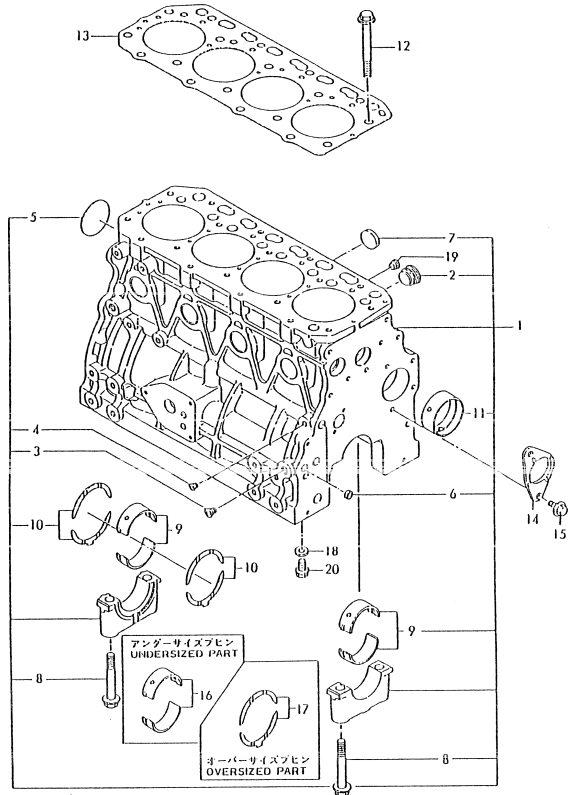
Contents

Fig. No.	Fig. Name
ENGINE 4TNA78L-RNK	
1.	CYLINDER BLOCK
2.	GEAR HOUSING
3.	FLYWHEEL HOUSING
4.	LUB. OIL SUMP
5.	OIL SEAL HOUSING
6.	BLIND COVER
7.	BREATHER
8.	BREATHER PIPE
9.	ENGINE LIFTER
10.	CYLINDER HEAD
11.	BONNET
12.	SUCTION MANIFOLD
13.	AIR CLEANER
14.	EXHAUST MANIFOLD
15.	SILENCER
16.	CAMSHAFT
17.	CRANKSHAFT
18.	CRANK PULLEY
19.	FLYWHEEL
20.	PISTON
21.	CONNECTING ROD
22.	IDLE GEAR
23.	FUEL INJECTION PUMP GEAR
24.	LUB.OIL PUMP

Fig. No.	Fig. Name
25.	LUB.OIL DIPSTICK
26.	LUB.OIL SUCTION PIPE
27.	LUB.OIL STRAINER
28.	LUB.OIL LINE
29.	COOLING WATER PUMP
30.	FAN PULLEY
31.	COOLING WATER FAN
32.	THERMOSTAT
33.	COOLING WATER LINE(BY-PASS)
34.	TEMPERATURE SENDER
35.	FUEL INJECTION PUMP
36.	FUEL INJECTION VALVE
37.	FUEL STRAINER
38.	FUEL INJECTION PIPE
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40.	FUEL RETURN LINE
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42.	ENGINE STOP
43.	STARTING MOTOR(COMPONENT PARTS)
44.	GENERATOR(COMPONENT PARTS)
45.	AIR HEATER
46.	GASKET SET
47.	SPECIAL TOOL(OPTIONAL)

Fig.1. CYLINDER BLOCK

029500-01100
 029400-01820
 029550-02100
 029150-02200



(A)=4TNA78L-RNK
 (B)=
 (C)=

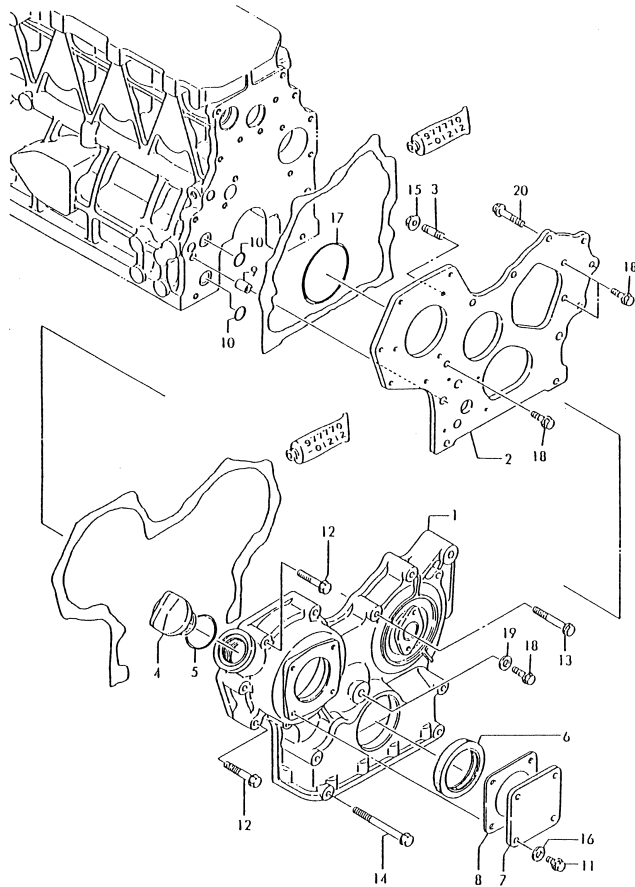
(D)=
 (E)=
 (F)=

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	729500-01560	BLOCK ASSY, CYLINDER	1							
2	2	171051-01921	PLUG, NPTF1	1							
3	2	124160-01910	PLUG, PT1/4	3							
3-1	2	124160-01910	PLUG, PT1/4	2							K
		(A=EXXX)									
4	2	23871-010000	PLUG, R01	1							
5	2	27231-500000	PLUG 50	1							
6	2	27241-120000	PLUG, 12	2							
7	2	27241-300000	PLUG 30	8							
8	2	129150-02020	BOLT, METAL CAP	10							
9	2	129150-02800	BEARING, MAIN	5							
10	2	129150-02930	BEARING, THRUST	2							
11	2	129795-02411	BUSH, CAMSHAFT	1							
12	1	129150-01200	BOLT, HEAD	18							
13	1	129555-01332	GASKET, HEAD	1							
14	1	129150-02450	BEARING, THRUST	1							
15	1	26106-080162	BOLT, M8X 16 PLATED	2							
16	1	129150-02870	BEARING, 0.25 US	5							1
17	1	129150-02940	BEARING, THRUST 0.25	1							2
18	1	23414-080000	GASKET, 8X1.0	4							
19	1	23871-030000	PLUG, R03	1							
20	1	26106-080122	BOLT, M8X 12 PLATED	4							

Remarks

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

Fig.2. GEAR HOUSING



029400-01210

(A)=4TNA78L-RNK

(B)=

(C)=

(D)=

(E)=

(F)=

No.	Lev.	Parts No.	Description	Qty						I	R	
				(A)	(B)	(C)	(D)	(E)	(F)			
1	1	129400-01500	CASE, GEAR	1								
2	1	129400-01520	FLANGE, GEAR CASE	1								
3	1	121450-01560	STUD, M8X22	3								
4	1	124160-01751	COVER, FILLER	1								
5	1	24311-000320	O-RING, 1AP32.0	1								
6	1	129795-01800	SEAL, OIL	1								
7	1	124240-01871	COVER	1								
8	1	124240-01882	GASKET	1								
8-1	1	124240-01883	GASKET	1								N
(A=*1990.01)												
9	1	129795-01950	PIPE, KNOCK L=18	2								
10	1	24311-000160	O-RING, 1AP16.0	2								
11	1	26106-080122	BOLT, M8X 12 PLATED	4								
12	1	26106-080452	BOLT, M8X 45 PLATED	6								
13	1	26106-080552	BOLT, M8X 55 PLATED	3								
14	1	26106-080852	BOLT, M8X 85 PLATED	4								
15	1	26366-080002	NUT, M8	3								
16	1	43400-500410	SEAL WASHER 8S	4								
17	1	121850-51960	O-RING	1								
18	1	26106-080162	BOLT, M8X 16 PLATED	4								
19	1	43400-500410	SEAL WASHER 8S	1								
20	1	26106-080202	BOLT, M8X 20 PLATED	2								

Fig.3. FLYWHEEL HOUSING

(A)=4TNA78L-RNK
(B)=
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129100-01580	PIN, M8X16	2							
2	1	171420-01600	HOUSING, FLYWHEEL	1							
3	1	119620-01750	CAP	1							
4	1	26206-100252	BOLT, M10X 25 PLATED	6							
5	1	26206-100302	BOLT, M10X 30 PLATED	4							

029100-01300

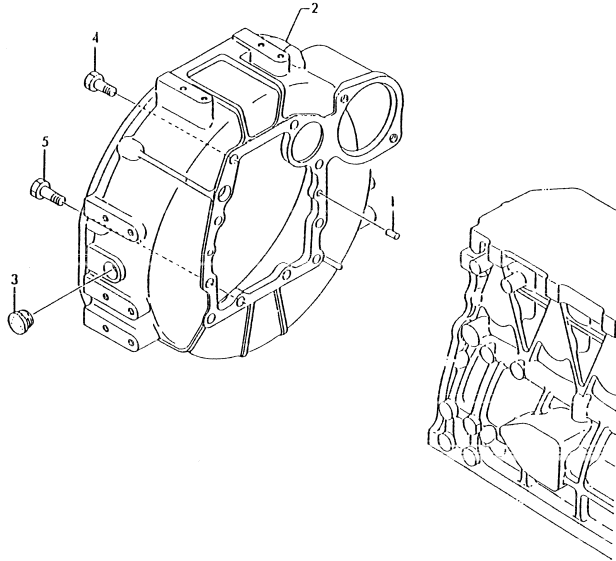


Fig.4. LUB. OIL SUMP

(A)=4TNA78L-RNK

(B)=

(C)=

(D)=

(E)=

(F)=

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	729488-01540	SUMP ASSY, OIL	1							
1-1	1	729402-01540	SUMP ASSY, OIL	1							N
(A=*1990.)											
1-2	1	729577-01720	SUMP ASSY, OIL	1							R
(A=*1991.)											
1-3	1	729402-01540	SUMP ASSY, OIL	1							R
(A=*1991.)											
2	2	171301-01640	PLUG, 22	1							
3	2	129100-01790	RETAINER	2							
4	2	24341-000240	O-RING, 1AS24.0	1							
5	1	129400-01730	SPACER, OIL SUMP	1							
6	1	26106-080162	BOLT, M8X 16 PLATED	4							
7	1	26106-080252	BOLT, M8X 25 PLATED	2							
8	1	26106-080452	BOLT, M8X 45 PLATED	20							
9	1	26106-080502	BOLT, M8X 50 PLATED	4							

029400-01400

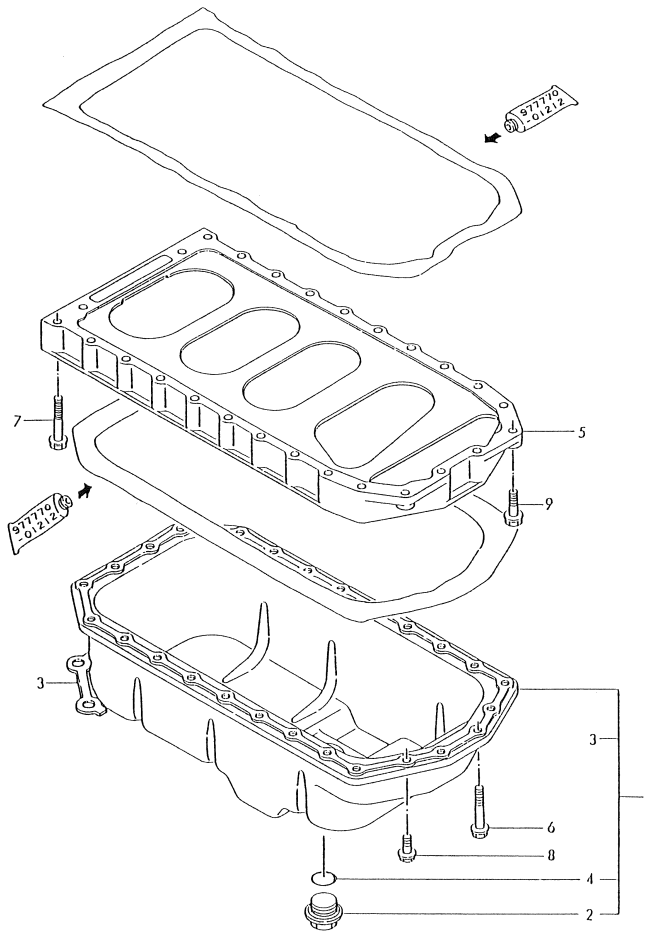


Fig.5. OIL SEAL HOUSING

(A)=4TNA78L-RNK
(B)=
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129100-01580	PIN, M8X16	2							
2	1	129100-01640	CASE ASSY, OIL SEAL	1							W
(A=*1990.05)											
3	2	129795-01780	SEAL, OIL	1							
4	1	129150-01660	GASKET	1							Z
(A=*1988.)											
5	1	26106-080302	BOLT, M8X 30 PLATED	6							
6	1	26106-080352	BOLT, M8X 35 PLATED	3							

029100-01510

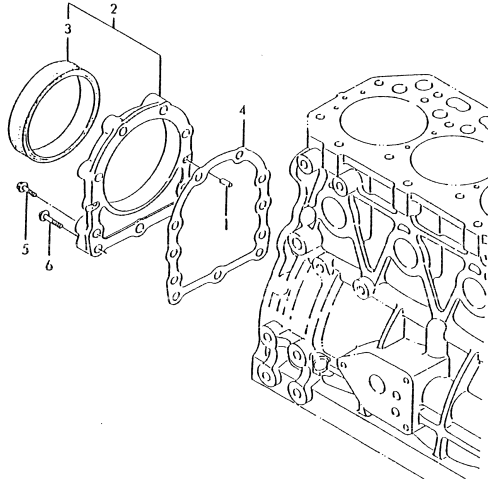


Fig.6. BLIND COVER

(A)=4TNA78L-RNK
(B)=
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	121023-01550	COVER	1							
2	1	24311-000260	O-RING, 1AP26.0	1							
2-1	1	24341-000240	O-RING, 1AS24.0	1							S
		(A=*1989.01)									
3	1	26106-060122	BOLT, M6X 12 PLATED	2							

029100-01810

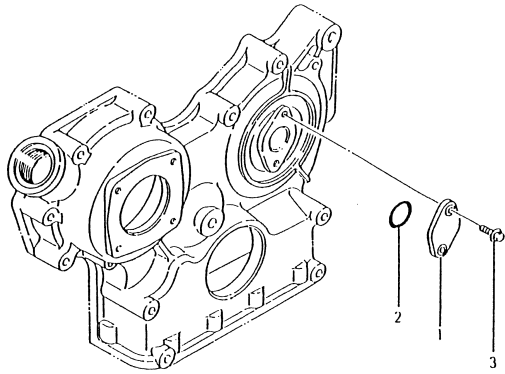


Fig.7. BREATHER

(A)=4TNA78L-RNK
 (B)=
 (C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129150-03010	COVER ASSY	1							
2	2	129150-03080	PLATE, BAFFLE	1							
3	1	129150-03070	BAFFLE, BREATHER	1							
4	1	24341-000500	O-RING, 1AS50.0	1							
5	1	26106-080162	BOLT, M8X 16 PLATED	2							

029100-03100

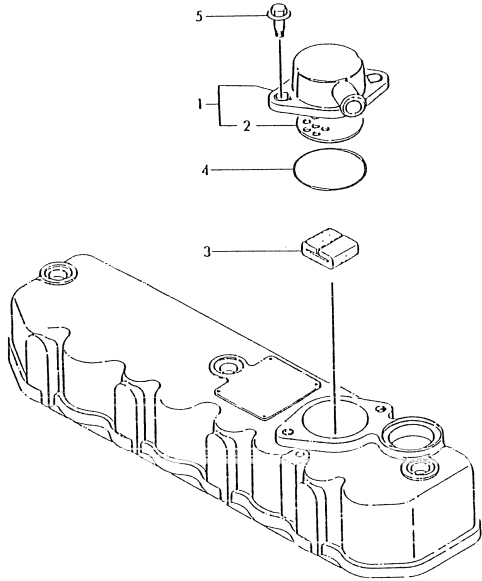


Fig.8. BREATHER PIPE

(A)=4TNA78L-RNK
(B)=
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129150-03090	HOSE, ID16X2T	1							
2	1	129150-03100	RETAINER, PIPE	1							

029100-03110

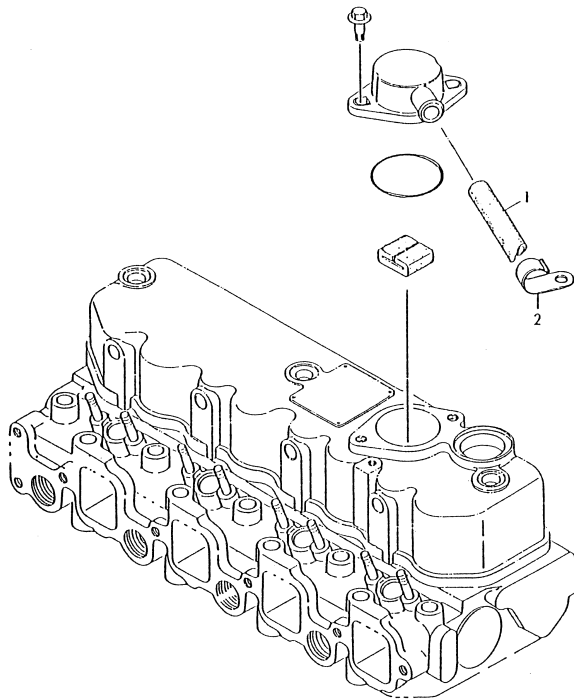


Fig.9. ENGINE LIFTER

(A)=4TNA78L-RNK
(B)=
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	124736-07900	LIFTER	2							
2	1	26106-080142	BOLT, M8X 14 PLATED	4							

021000-01300

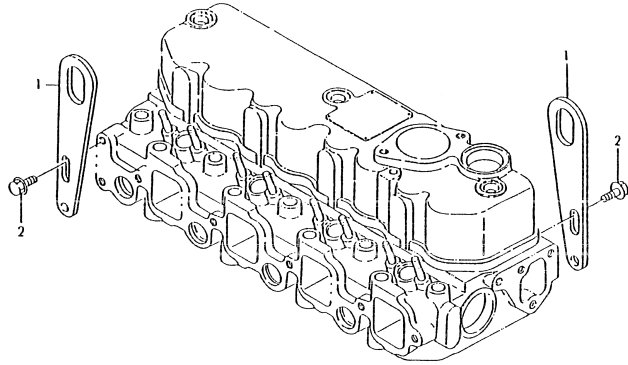


Fig.10. CYLINDER HEAD

(A)=4TNA78L-RNK

(B)=

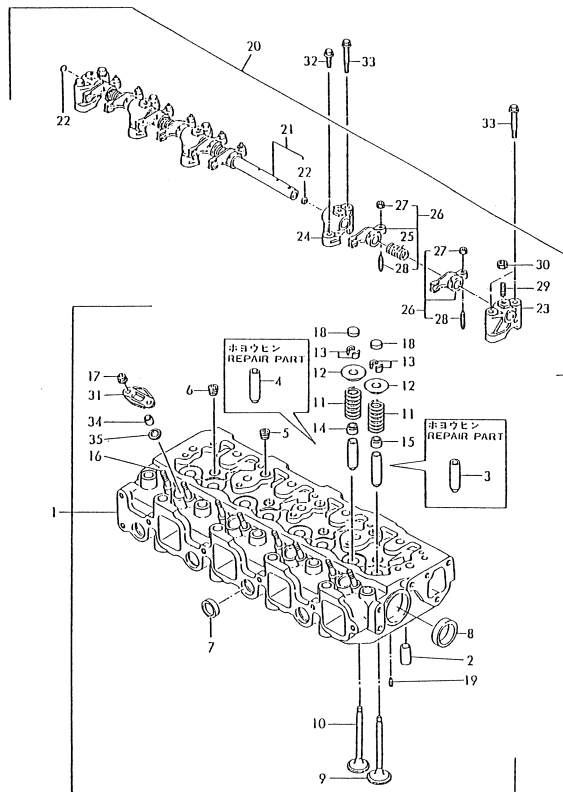
(C)=

(D)=

(E)=

(F)=

029400-11110



No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	729400-11700	HEAD ASSY, CYLINDER	1							
2	2	129150-11050	PIECE	4							
3	2	120130-11860	GUIDE, VALVE	4							1
4	2	129150-11810	GUIDE, VALVE	4							1
5	2	121850-11860	PLUG, PT1/4	3							
6	2	23871-030000	PLUG, R03	4							
7	2	27241-220000	PLUG, 22	4							
8	2	27241-400000	PLUG, 40	2							
9	2	129100-11100	VALVE, INTAKE	4							
10	2	129100-11110	VALVE, EXHAUST	4							
11	2	129795-11120	SPRING, VALVE	8							
12	2	129795-11180	RETAINER, SPRING	8							
13	2	103338-11190	COTTER	8							
13-1	2	27310-080001	COTTER, 8	8							R
(A=EXXXXX)											
14	2	121400-11340	SEAL, VALVE STEM	4							
15	2	124460-11340	SEAL, VALVE STEM	4							
16	3	26216-060202	STUD, M6X 20	8							
17	2	26366-060002	NUT, M6	8							
18	2	129150-11370	CAP, VALVE	8							
19	2	22351-060012	PIN, SPRING 6.0X12	2							
20	1	129555-11241	SHAFT ASSY, ROCKER	1							
21	2	129550-11290	SHAFT, ROCKER ARM	1							
22	3	27241-100000	PLUG, 10	2							
23	2	129155-11260	SUPPORT, ROCKER ARM	2							
24	2	129155-11270	SUPPORT, ROCKER ARM	3							
25	2	129150-11280	SPRING	4							
26	2	729150-11650	ARM ASSY, ROCKER	8							
26-1	2	729402-11650	ARM ASSY, ROCKER	8							N
(A=*1990.05)											
27	3	129150-11750	NUT, M8	8							
28	3	129150-11230	SCREW, VALVE ADJUST	8							
29	2	26226-080182	STUD, M8X 18	3							
30	2	26756-080002	NUT, LOCK M8	3							
31	1	119625-11900	RETAINER, NOZZLE	4							
32	1	26106-080252	BOLT, M8X 25 PLATED	3							
33	1	26106-080502	BOLT, M8X 50 PLATED	7							
34	1	119625-11870	PROTECTOR, NOZZLE	4							
35	1	119625-11880	SEAT, NOZZLE	4							

Remarks

(1)REPAIR PART.

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

Fig.11. BONNET

(A)=4TNA78L-RNK
(B)=
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	124160-01751	COVER, FILLER	1							
2	1	121420-01760	O-RING	1							
2-1	1	24311-000320	O-RING, 1AP32.0	1							N
(A=E14065)											
3	1	129400-11300	BONNET	1							
4	1	129550-11310	GASKET, BONNET	1							
5	1	124160-11360	KNOB	3							
6	1	24311-000120	O-RING, 1AP12.0	3							

029400-11200

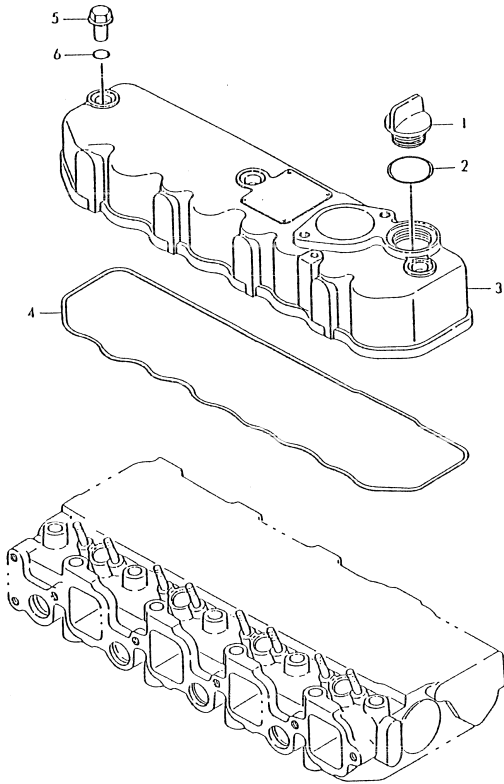


Fig.12. SUCTION MANIFOLD

(A)=4TNA78L-RNK

(B)=

(C)=

(D)=

(E)=

(F)=

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129488-12100	MANIFOLD, AIR INTAKE	1							
2	1	129550-12110	GASKET, MANIFOLD	1							
2-1	1	129550-12111	GASKET, MANIFOLD	1							N
		(A=*1990.06)									
3	1	26106-080352	BOLT, M8X 35 PLATED	5							

029488-12100

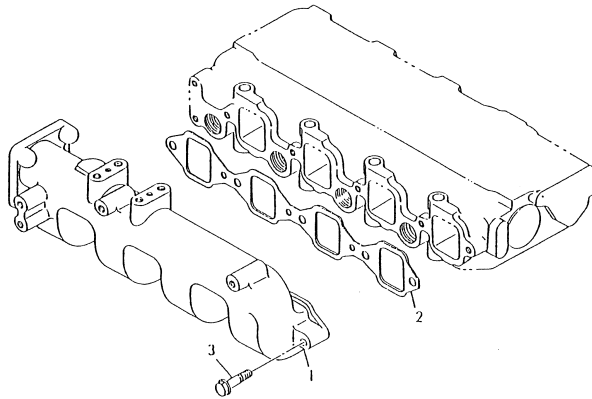


Fig.13. AIR CLEANER

(A)=4TNA78L-RNK

(B)=

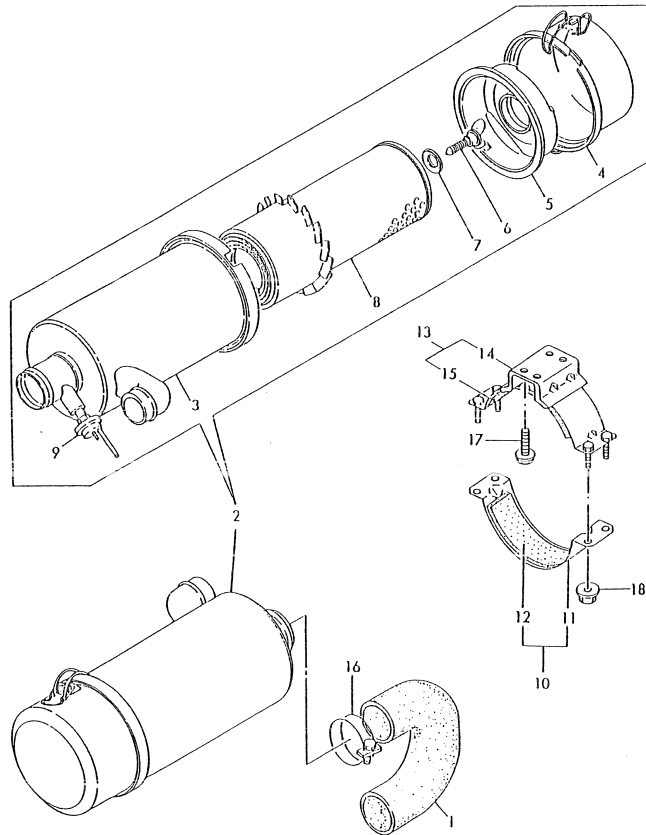
(C)=

(D)=

(E)=

(F)=

029515-93000



No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	171351-12210	PIPE, AIR INTAKE	1							
2	1	129515-12500	CLEANER ASSY, AIR	1							
3	2	129415-12520	CASE ASSY, CLEANER	1							
4	2	121120-12531	PAN, DUST	1							
5	2	121120-12541	RETAINER, ELEMENT	1							
6	2	121120-12561	BOLT	1							
7	2	121120-12571	WASHER, SEAL	1							
8	2	121120-12901	ELEMENT	1							
9	2	121262-12800	INDICATOR	1							
10	1	121400-12540	BAND ASSY, CLEANER	1							
11	2	121400-12560	BAND, AIR CLEANER	1							
12	2	121400-12570	SEAT, RUBBER B	1							
13	1	171351-12580	SUPPORT ASSY,CLEANER	1							
14	2	171351-12560	SUPPORT, AIR CLEANER	1							
15	2	171351-12570	SEAT, RUBBER	1							
16	1	23000-060000	CLAMP, 60	2							
17	1	26106-080142	BOLT, M8X 14 PLATED	4							
18	1	26366-060002	NUT, M6	4							

Fig.14. EXHAUST MANIFOLD

(A)=4TNA78L-RNK
(B)=
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129411-13100	MANIFOLD, EXHAUST	1							
2	1	129550-13110	GASKET	1							
3	1	194990-22050	NUT, M8	2							
4	1	26106-080802	BOLT, M8X 80 PLATED	6							
5	1	26216-080222	STUD, M8X 22	4							
6	1	26216-080802	STUD, M8X 80	2							

029411-13100

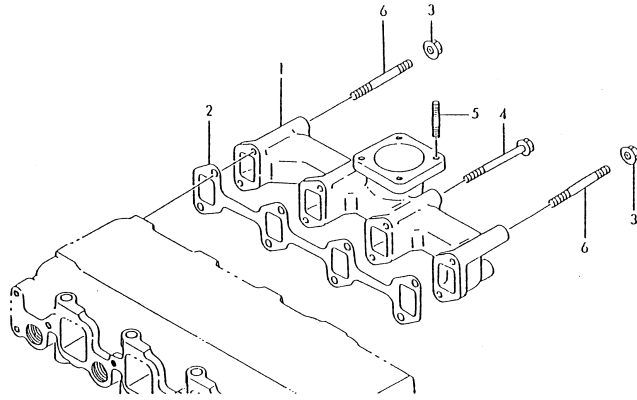


Fig.15. SILENCER

(A)=4TNA78L-RNK
(B)=
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129400-13200	GASKET, SILENCER	2							
1-1	1	129400-13201	GASKET, SILENCER	2							N
(A=*1990.06)											
2	1	129415-13500	SILENCER	1							
2-1	1	129415-13501	SILENCER	1							N
(A=*1989.06)											
3	1	171350-13650	STAY, SILENCER	1							
4	1	26014-080202	BOLT, M8X 20	4							
5	1	194990-22050	NUT, M8	8							

029515-93000

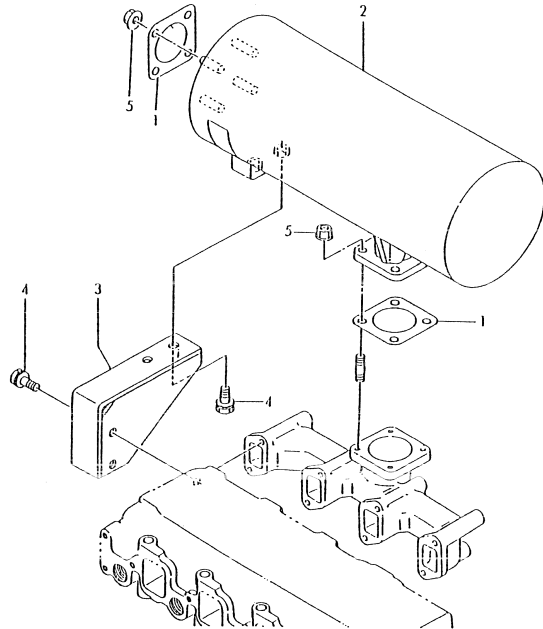


Fig.16. CAMSHAFT

(A)=4TNA78L-RNK
(B)=
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129550-14011	CAMSHAFT	1							
2	1	129150-14101	GEAR, CAMSHAFT	1							
3	1	129150-14200	TAPPET	8							
4	1	129550-14400	ROD, PUSH	8							
5	1	22512-070140	KEY, 7X 14	1							

D29550-14100

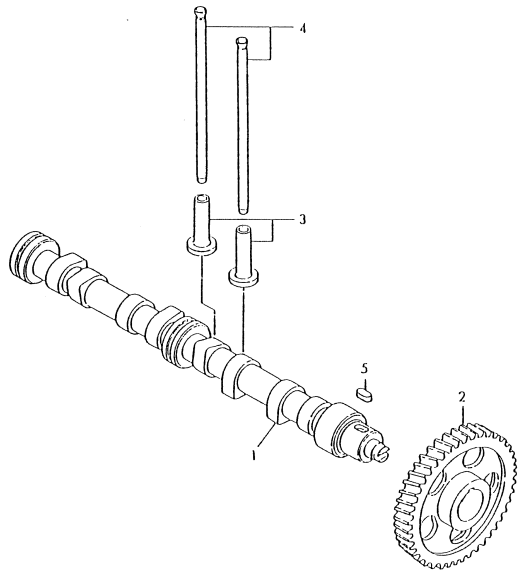
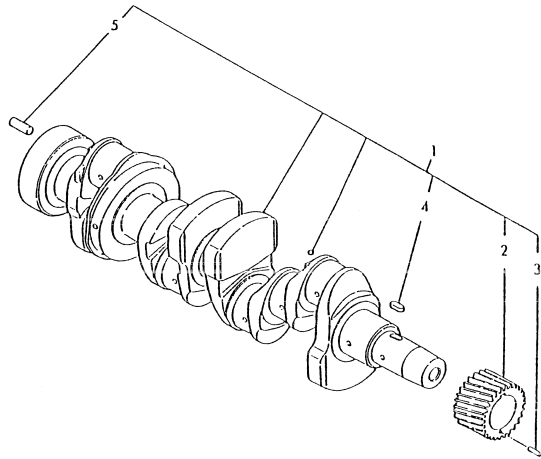


Fig.17. CRANKSHAFT



D29500-21101

(A)=4TNA78L-RNK
(B)=
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	729550-21701	CRANKSHAFT ASSY	1							
1-1	1	729500-21700	CRANKSHAFT ASSY	1							N
			(A=E13302)								
2	2	129150-21200	GEAR, CRANKSHAFT	1							
3	2	22351-040010	PIN, SPRING 4.0X10	1							Z
			(A=E13302)								
4	2	22512-070140	KEY, 7X 14	1							
5	2	129100-01580	PIN, M8X16	1							W
			(A=*1990.)								

Fig.18. CRANK PULLEY

(A)=4TNA78L-RNK
(B)=
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	171301-21650	V-PULLEY	1							
2	1	129795-21661	WASHER	1							
3	1	121850-21680	BOLT	1							

D29400-21200

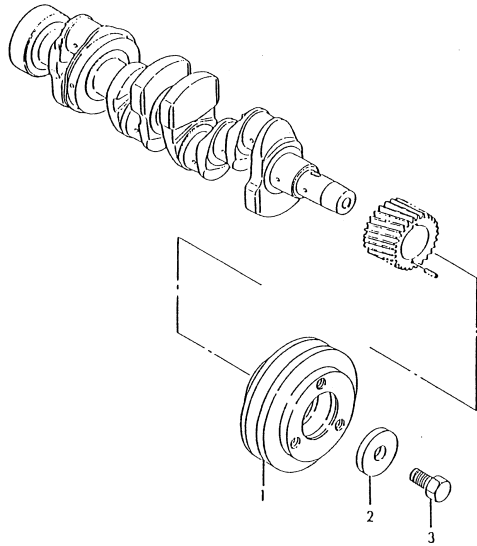


Fig.19. FLYWHEEL

(A)=4TNA78L-RNK
(B)=
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129100-01580 (A=*1990.)	PIN, M8X16	1							Z
2	1	121111-21501	BOLT, FLYWHEEL	6							
3	1	171420-21590	FLYWHEEL ASSY	1							
4	2	124550-21600	GEAR, RING	1							

029400-21310

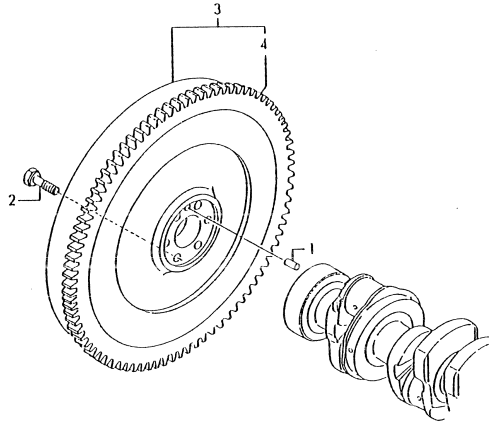


Fig.20. PISTON

(A)=4TNA78L-RNK

(B)=

(C)=

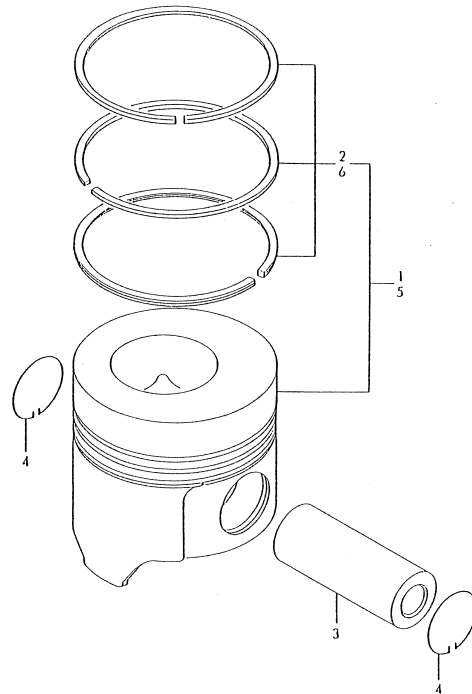
(D)=

(E)=

(F)=

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129500-22080	PISTON ASSY	4							
2	2	729100-22500	RING SET, PISTON	4							
3	1	129150-22300	PIN, PISTON D26 L66	4							
4	1	121100-22400	CIRCLIP	8							
5	1	729500-22900	PISTON ASSY, 0.25 OS	4							1
6	2	729555-22950	RING SET, 0.25 OS	4							1

029500-22110



Remarks

(1)OVER-SIZE PART.(O.S=0.25)

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

Fig.22. IDLE GEAR

(A)=4TNA78L-RNK
(B)=
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129100-25061	SHAFT, IDLE	1							
2	1	129150-25101	GEAR ASSY, IDLE	1							
4	1	26106-080452	BOLT, M8X 45 PLATED	2							

D29100-25101

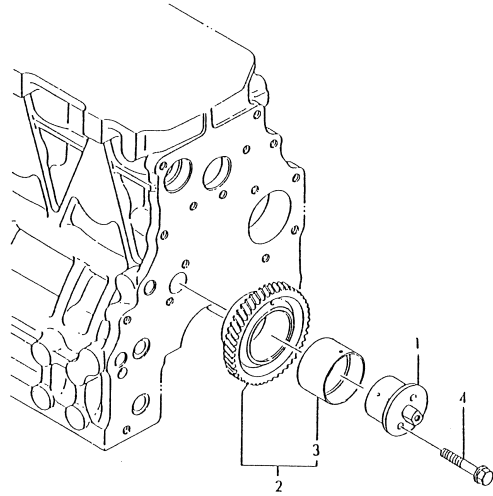


Fig.23. FUEL INJECTION PUMP GEAR

(A)=4TNA78L-RNK
(B)=
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129150-25900	GEAR, PUMP	1							
2	1	22217-120000	WASHER, SPRING 12	1							
3	1	26716-120002	NUT, M12	1							

029150-25200

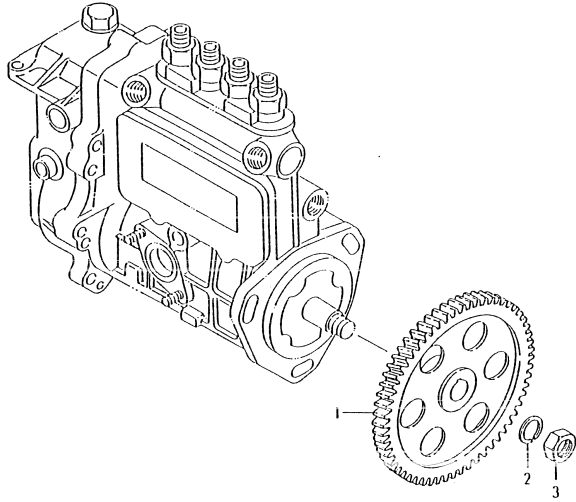


Fig.24. LUB.OIL PUMP

(A)=4TNA78L-RNK
(B)=
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129150-32000	PUMP ASSY, OIL	1							
2	1	129150-32020	GASKET, PUMP	1							
3	1	26450-060252	BOLT, M6X 25	4							

029150-321

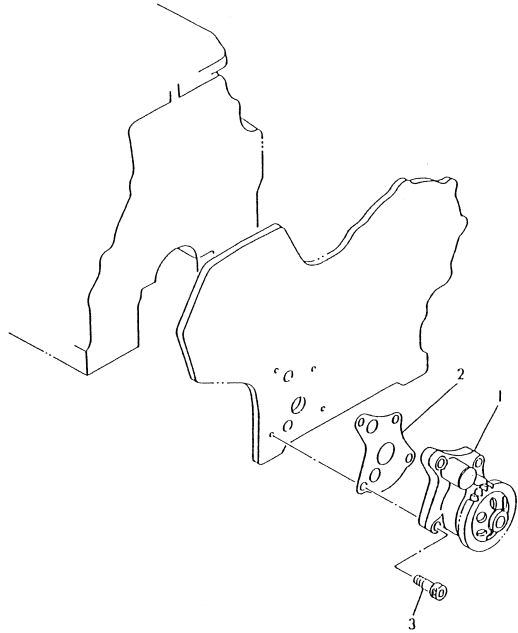


Fig.25. LUB.OIL DIPSTICK

(A)=4TNA78L-RNK
 (B)=
 (C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	171420-34800	DIPSTICK, OIL	1							
2	1	121520-34810	GUIDE, DIPSTICK	1							

029100-34110

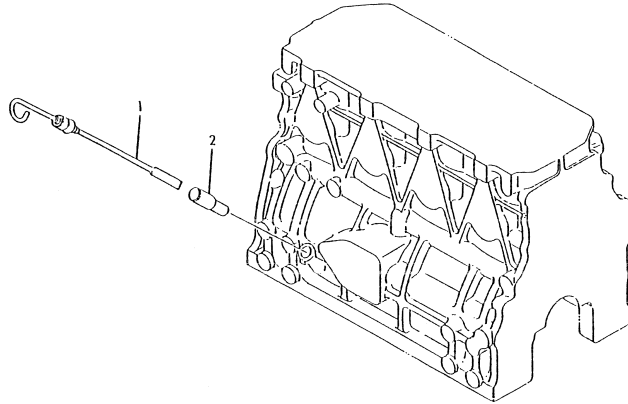


Fig.26. LUB.OIL SUCTION PIPE

(A)=4TNA78L-RNK
(B)=
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129150-35040	GASKET	1							
1-1	1	129150-35041	GASKET	1							N
(A=*1990.06)											
2	1	129150-35091	PIPE ASSY, OIL INLET	1							
3	1	26116-080352	BOLT, M8X 35 PLATED	2							
3-1	1	26106-080352	BOLT, M8X 35 PLATED	2							N
(A=EXXX)											

029100-35100

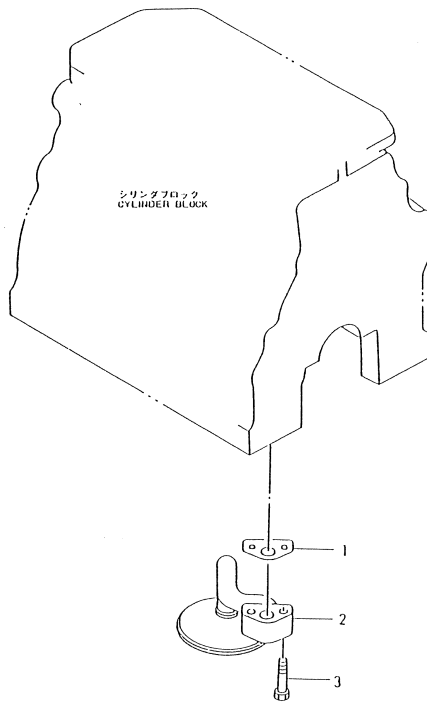
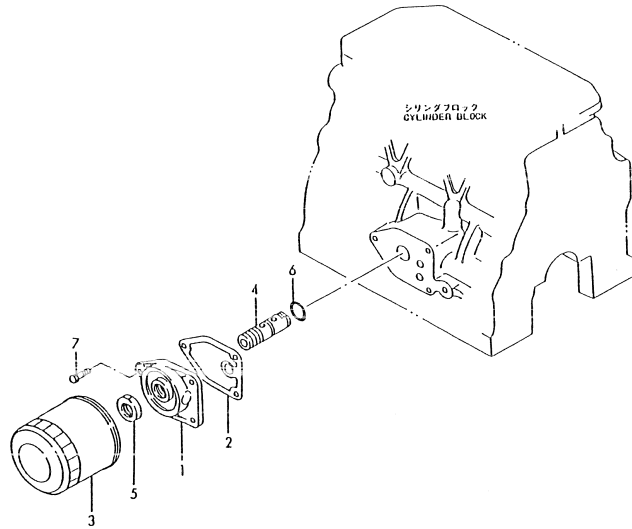


Fig.27. LUB.OIL STRAINER

(A)=4TNA78L-RNK
(B)=
(C)=

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

029100-35200



No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129150-35101	BRACKET, STRAINER	1							
2	1	129150-35110	GASKET	1							
2-1	1	129150-35111	GASKET	1							N
(A=*1990.06)											
3	1	129150-35150	FILTER 90X80L	1							
4	1	119865-35300	VALVE ASSY, CONTROL	1							
5	1	129150-35350	NUT	1							
6	1	24311-000160	O-RING, 1AP16.0	1							
7	1	26106-080202	BOLT, M8X 20 PLATED	3							

Fig.28. LUB.OIL LINE

(A)=4TNA78L-RNK
(B)=
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	124160-39450	SWITCH, 0.5KG	1							
2	1	129550-39450	PIPE ASSY, OIL	1							
3	1	124160-39140	BOLT, PIPE JOINT M10	1							
4	1	124550-59820	BOLT, PIPE JOINT M8	1							
5	1	23414-100000	GASKET, 10X1.0	2							
6	1	43400-500410	SEAL WASHER 8S	2							

029400-39100

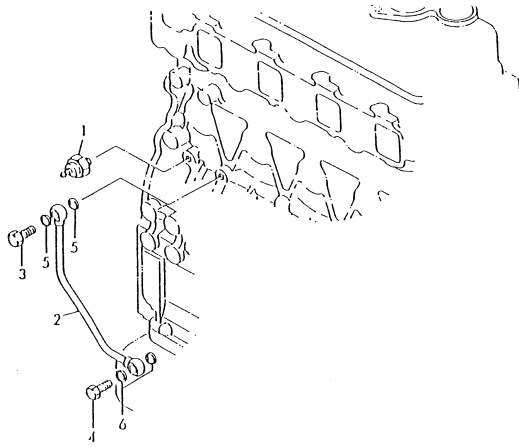


Fig.29. COOLING WATER PUMP

(A)=4TNA78L-RNK
(B)=
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	121850-11860	PLUG, PT1/4	1							
2	1	129100-42001	PUMP ASSY, WATER	1							
2-1	1	129100-42002	PUMP ASSY, WATER	1							N
			(A=*1990.06)								
3	2	23871-030000	PLUG, R03	1							
4	1	129100-42020	GASKET, WATER PUMP	1							
5	1	26106-080602	BOLT, M8X 60 PLATED	3							

029100-42110

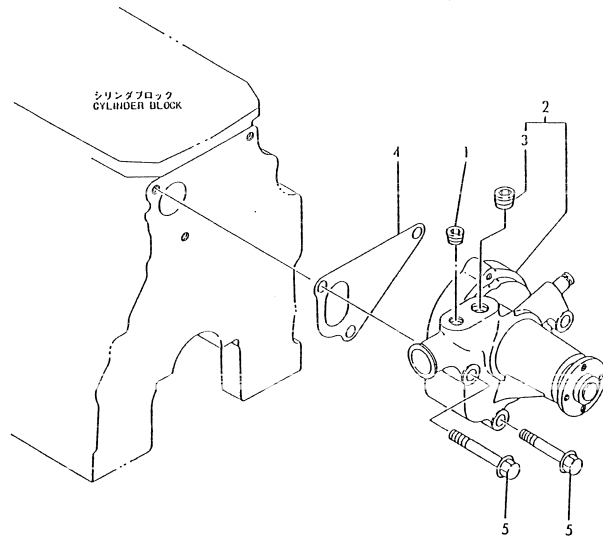


Fig.30. FAN PULLEY

(A)=4TNA78L-RNK
(B)=
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	124732-42290	V-BELT, AX37	1							
2	1	129403-42380	V-PULLEY, D=110	1							

029100-42300

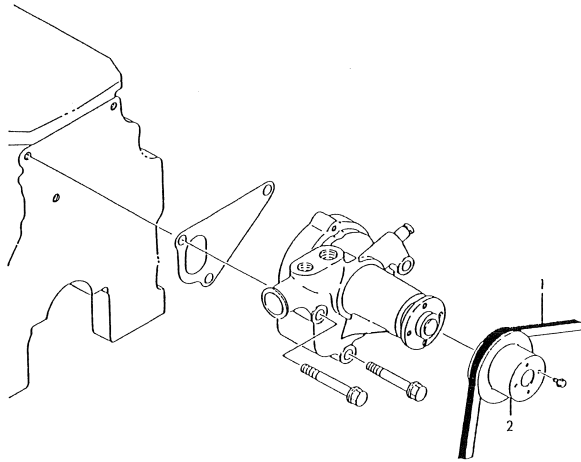
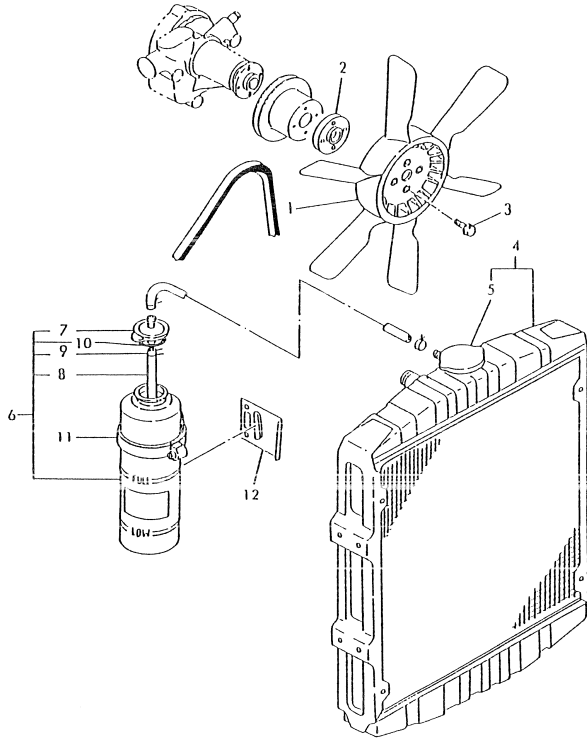


Fig.31. COOLING WATER FAN

(A)=4TNA78L-RNK
(B)=
(C)=

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

029515-44400
029515-93000



No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129354-44740	FAN, COOLING	1							
2	1	124574-44761	SPACER, FAN	1							
3	1	26014-060252	BOLT, M6X 25	4							
4	1	121262-44500	RADIATOR ASSY	1							
5	2	123682-44210	CAP, RADIATOR	1							
6	1	171064-44510	TANK ASSY, SUB	1							
7	2	171064-44530	CAP	1							
7-1	2	121450-44531	CAP	1							N
(A=E15120)											
8	2	23061-070230	PIPE, 7X 230	1							
8-1	2	23065-070225	HOSE 7X 225	1							N
(A=E11451)											
9	2	124450-44560	RETAINER	1							
10	2	121470-44581	GASKET	1							W
(A=E15120)											
11	1	124450-44550	BAND	1							
12	1	121256-44600	BRACKET, SUB TANK	1							

Fig.32. THERMOSTAT

(A)=4TNA78L-RNK

(B)=

(C)=

(D)=

(E)=

(F)=

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129350-49530	COVER, THERMOSTAT	1							
2	1	129795-49550	GASKET	1							
2-1	1	129795-49551	GASKET	1							N
(A=*1990.06)											
3	1	129100-49800	CASE ASSY,THERMOSTAT	1							
4	2	129100-49820	GASKET	1							
5	2	129100-49830	COVER, THERMOSTAT	1							
6	2	124770-11770	JOINT, PIPE PT1/8	1							
7	2	23871-030000	PLUG, R03	1							
8	2	26116-060162	BOLT, M6X 16 PLATED	2							
9	1	129155-49800	THERMOSTAT, 71	1							
10	1	129150-49810	GASKET, THERMOSTAT	1							
10-1	1	129150-49811	GASKET, THERMOSTAT	1							N
(A=*1990.06)											
11	1	129100-49840	GASKET	1							
12	1	26106-080202	BOLT, M8X 20 PLATED	2							
13	1	26106-080252	BOLT, M8X 25 PLATED	1							
14	1	26106-080502	BOLT, M8X 50 PLATED	1							
15	1	26106-080602	BOLT, M8X 60 PLATED	1							

029100-49210

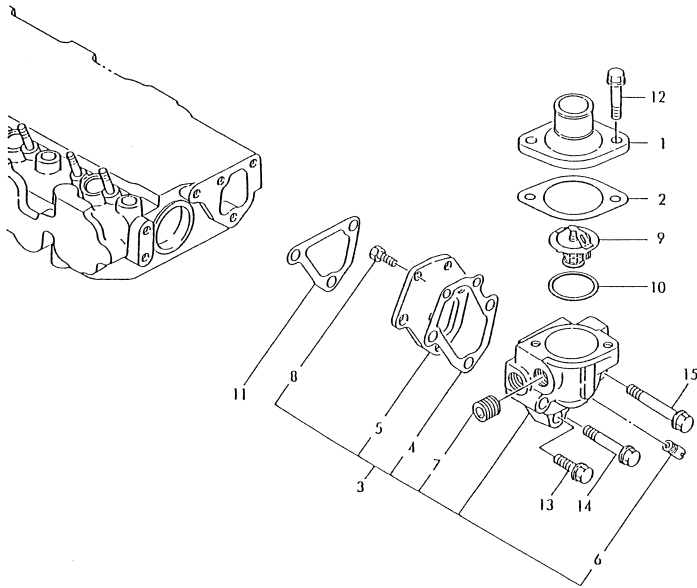
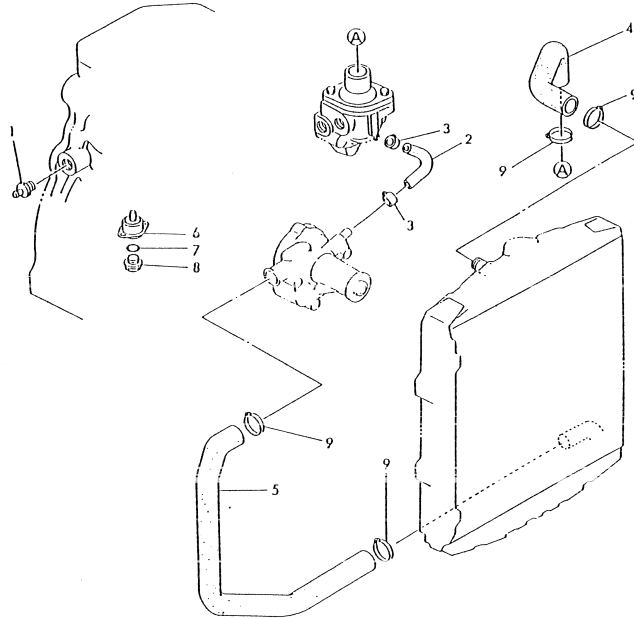


Fig.33. COOLING WATER LINE(BY-PASS)

(A)=4TNA78L-RNK
 (B)=
 (C)=

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

019600-49300
 029500-49500
 029515-93000



No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	121550-49111	JOINT, PT1/4	1							
2	1	129100-49050	PIPE, WATER	1							
3	1	23000-016000	CLAMP, 16	2							
4	1	171350-49010	PIPE, WATER	1							
5	1	171064-49020	PIPE, WATER	1							
6	1	121521-49100	BODY ASSY, COCK	1							
7	1	24311-000160	O-RING, 1AP16.0	1							Z
		(A=EXXX)									
8	1	121250-49121	PLUG, DRAIN	1							Z
		(A=EXXX)									
9	1	23010-038000	CLAMP, 38	4							

Fig.34. TEMPERATURE SENDER

(A)=4TNA78L-RNK
(B)=
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	121250-44901	SWITCH, 110	1							
2	1	124465-44950	GASKET, 16	1							
3	1	124250-49351	SENSOR	1							
3-1	1	171056-49351 (A=E11034)	SENSOR	1							N
4	1	129150-49360	GASKET	1							

D29515-49600

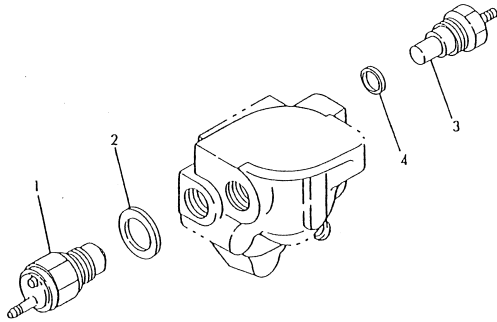
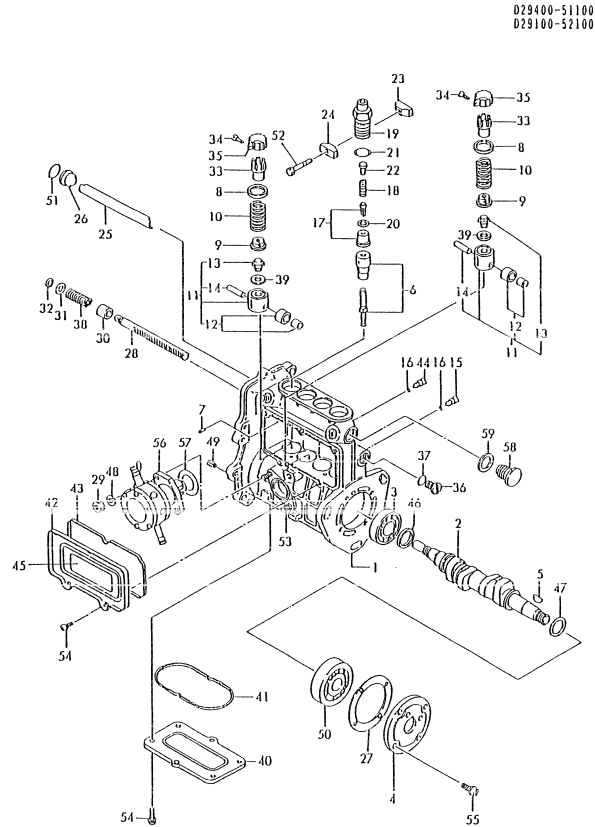


Fig.35. FUEL INJECTION PUMP



(A)=4TNA78L-RNK

(B)=

(C)=

(D)=

(E)=

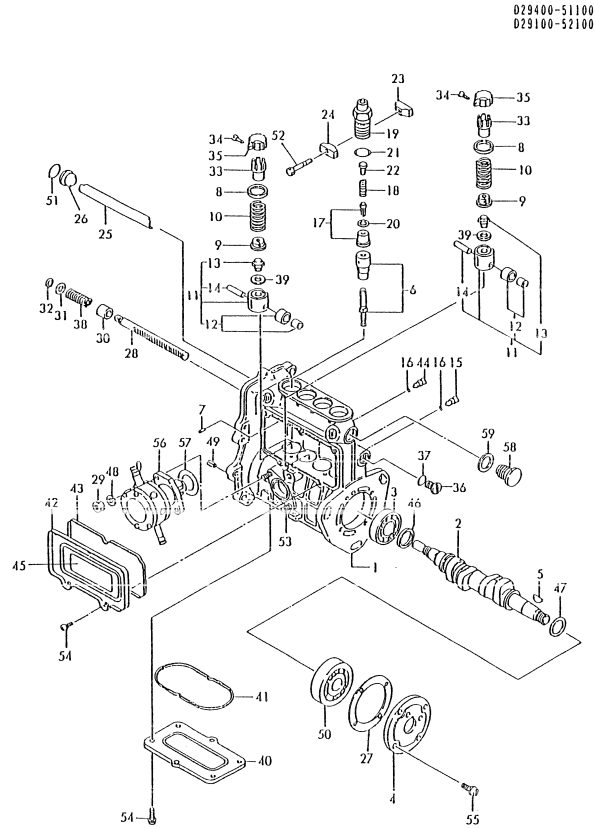
(F)=

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	729515-51360	PUMP ASSY, INJECTION	1							1
2	2	129470-51040	CAMSHAFT	1							
3	2	129155-51050	BEARING, 17BM001D	1							
4	2	129155-51060	SUPPORT, CAMSHAFT	1							
5	2	122710-51090	KEY	1							
6	2	129400-51100	PLUNGER ASSY	4							
7	2	129155-51140	PIN	4							
8	2	174307-51170	RETAINER, SPRING A	4							
9	2	129155-51180	RETAINER, SPRING	4							
10	2	124950-51190	SPRING, PLUNGER	4							
11	2	129155-51200	TAPPET ASSY	4							
12	3	711100-51540	ROLLER ASSY	4							
13	3	129155-51250	BOLT, ADJUSTING	4							
14	3	174100-54120	PIN	4							
15	2	129155-51270	STOPPER, TAPPET	4							
16	2	129155-51280	O-RING, S6	5							
16-1	2	129155-51280	O-RING, S6	4							K
(A=EXXX)											
17	2	128170-51300	VALVE ASSY, DELIVERY	4							
18	2	129155-51320	SPRING, DELIVERY	4							
19	2	129155-51340	RETAINER	4							
20	2	124550-51350	GASKET, DELIVERY	4							
21	2	124550-51370	O-RING	4							
22	2	129155-51370	STOPPER, VALVE	4							
23	2	129155-51380	STOPPER	2							
24	2	129155-51390	STOPPER	2							
25	2	129555-51400	DEFLECTOR	1							
26	2	129155-51410	BOLT	2							
26-1	2	129155-51410	BOLT	1							K
(A=EXXX)											
27	2	129155-51450	SHIM SET, ADJUSTING	1							
28	2	129555-51500	RACK, CONTROL	1							
29	2	26716-060002	NUT, M6	2							
30	2	129155-51521	BUSH, RACK	1							
31	2	129155-51530	SPACER	1							
32	2	129155-51540	CIRCLIP	1							
33	2	129155-51550	PINION, CONTROL	4							
34	2	122117-51560	SCREW	4							
35	2	174307-51560	PINION	4							
36	2	129155-51570	PLUG, M12	1							
37	2	129155-51580	O-RING	1							
38	2	129155-51591	SPRING, RACK	1							
39	2	129155-51600	SHIM SET, ADJUSTING	4							
40	2	129555-51700	COVER	1							
41	2	129555-51710	GASKET	1							
42	2	129555-51750	COVER	1							
43	2	129555-51760	GASKET	1							
44	2	129155-51790	STOPPER, RACK	1							
45	2	129156-51910	LABEL, CAUTION	1							
46	2	129155-51930	SPACER, T=3.25	1							
47	2	129155-51940	SPACER, T=1.5	1							

Remarks

(1)GOVERNOR ASSY(FIG.41)IS INCORPORATED IN THIS FUEL INJECTION PUMP ASSY(REF.NO.1)

Fig.35. FUEL INJECTION PUMP



(A)=4TNA78L-RNK
(B)=
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
48	2	22217-060000	WASHER, SPRING 6	2							
49	2	22351-050010	PIN, SPRING 5.0X10	2							
50	2	24101-063034	BEARING, BALL 6303	1							
51	2	24341-000160	O-RING, 1AS16.0	1							
52	2	26116-050302	BOLT, M5X 30 PLATED	2							
53	2	26216-060142	STUD, M6X 14	2							
53-1	2	129155-51020	STUD	2							N
(A=E13194)											
54	2	26022-050102	SCREW, M5X10	11							
55	2	26022-060162	SCREW, M6X16	4							
56	2	129100-52100	PUMP ASSY, FUEL FEED	1							
57	2	129155-52050	GASKET	1							
58	2	129155-51420	PLUG, M16	1							
59	2	43400-500490	SEAL WASHER 16S	1							

Remarks

(1)GOVERNOR ASSY(FIG.41)IS INCORPORATED IN THIS FUEL INJECTION PUMP ASSY(REF.NO.1)

Fig.36. FUEL INJECTION VALVE

(A)=4TNA78L-RNK
(B)=
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	729500-53200	VALVE ASSY,INJECTION	4							
2	2	129500-53050	VALVE ASSY,INJECTION	4							
3	2	114250-53080	NUT, NOZZLE D16.95	4							
5	2	114250-53120	SPRING, NOZZLE	4							
6	2	114250-53130	SEAT, SPRING	4							
7	2	114250-53140	PLATE	4							
8	2	114250-53210	PIN	8							
9	2	114250-53400	SHIM SET	4							

029500-53200

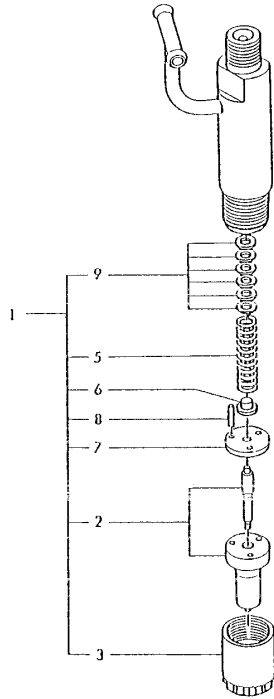


Fig.37. FUEL STRAINER

(A)=4TNA78L-RNK

(B)=

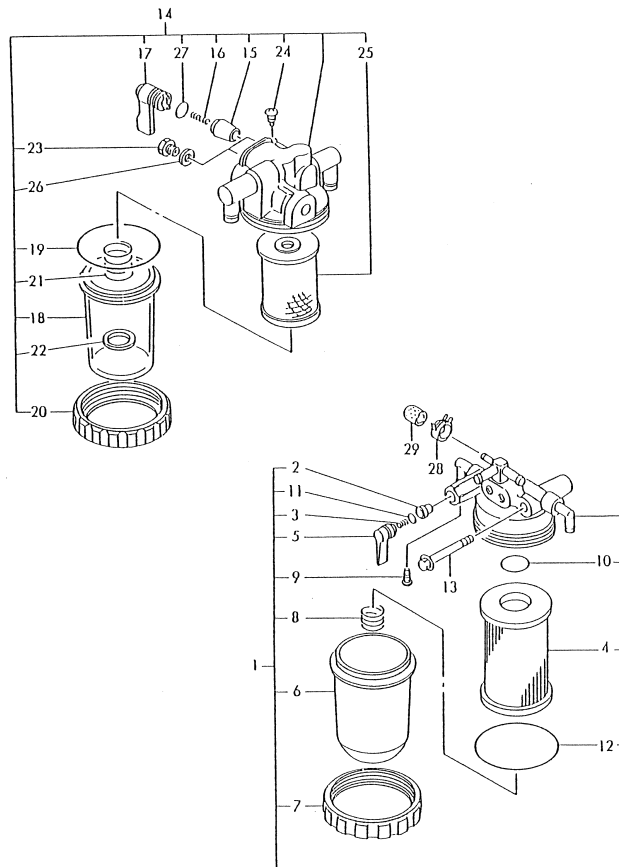
(C)=

(D)=

(E)=

(F)=

D29100-55112
D29515-93000



No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129100-55621	FILTER ASSY, FUEL	1							
2	2	104200-55321	VALVE, TAPER	1							
3	2	104200-55330	SPRING, VALVE	1							
4	2	129100-55650	ELEMENT	1							
5	2	129100-55670	LEVER	1							
6	2	129100-55680	CUP, STRAINER	1							
7	2	129100-55690	RING, RETAINING	1							
8	2	129100-55700	SPRING	1							
9	2	104200-55750	SCREW, M4	1							
10	2	24311-000160	O-RING, 1AP16.0	1							
11	2	24311-240100	O-RING, 1AP10A	1							
12	2	24321-000650	O-RING, 1AG65.0	1							
13	1	26106-080652	BOLT, M8X 65 PLATED	1							
13-1	1	26014-080702	BOLT, M8X 70	1							N
(A=E15120)											
14	1	129335-55700	SEPARATOR ASSY,WATER	1							
15	2	104200-55321	VALVE, TAPER	1							
16	2	104200-55330	SPRING, VALVE	1							
17	2	104200-55341	HANDLE	1							
18	2	124064-55510	COVER	1							
19	2	102103-55520	O-RING	1							
20	2	110250-55610	RING, RETAINING	1							
21	2	121257-55720	SPRING	1							
22	2	121257-55731	FLOAT	1							
23	2	101720-55750	PLUG, 6	2							
24	2	104200-55750	SCREW, M4	1							
25	2	171081-55910	SCREEN	1							
26	2	23418-060000	GASKET, 6X1.0	2							
27	2	24311-240100	O-RING, 1AP10A	1							
28	1	124066-59100	CLIP, HOSE 8	1							
29	1	129150-59580	CAP	1							

Fig.38. FUEL INJECTION PIPE

(A)=4TNA78L-RNK

(B)=

(C)=

(D)=

(E)=

(F)=

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129550-59120	RETAINER, PIPE	1							
2	2	129150-59130	BOLT, M4X12	2							
3	1	129500-59910	PIPE ASSY, INJECTION	1							
4	1	129500-59920	PIPE ASSY, INJECTION	1							
5	1	129500-59930	PIPE ASSY, INJECTION	1							
6	1	129500-59940	PIPE ASSY, INJECTION	1							

029500-59110

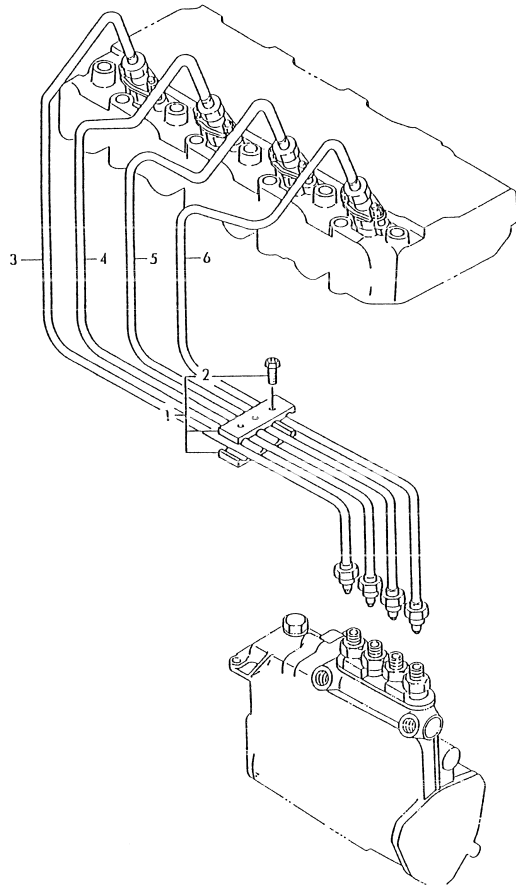
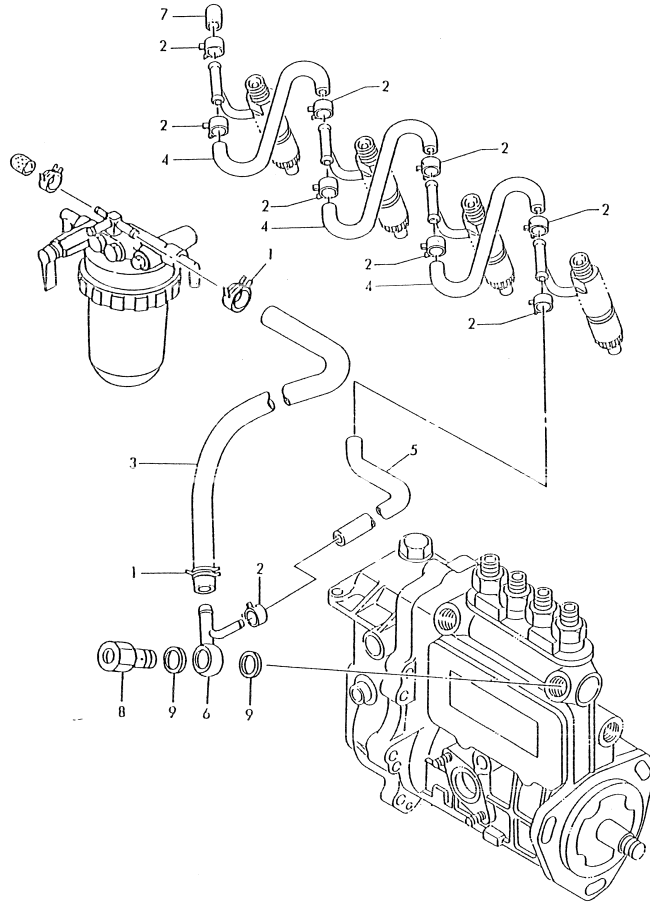


Fig.40. FUEL RETURN LINE

(A)=4TNA78L-RNK
(B)=
(C)=

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

029400-59302



No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	124766-59050	CLIP, HOSE 12	2							
2	1	124066-59100	CLIP, HOSE 8	9							
3	1	105025-59530	PIPE, FUEL D13X400	1							
4	1	121250-59550	PIPE, FUEL D8X120	3							
5	1	119840-59560	PIPE, FUEL RETURN	1							
6	1	119840-59570	JOINT	1							
7	1	129150-59580	CAP	1							
8	1	129100-59951	VALVE ASSY, CHECK	1							
9	1	23414-120000	GASKET, 12X1.0	2							

Fig.41. GOVERNOR

(A)=4TNA78L-RNK

(B)=

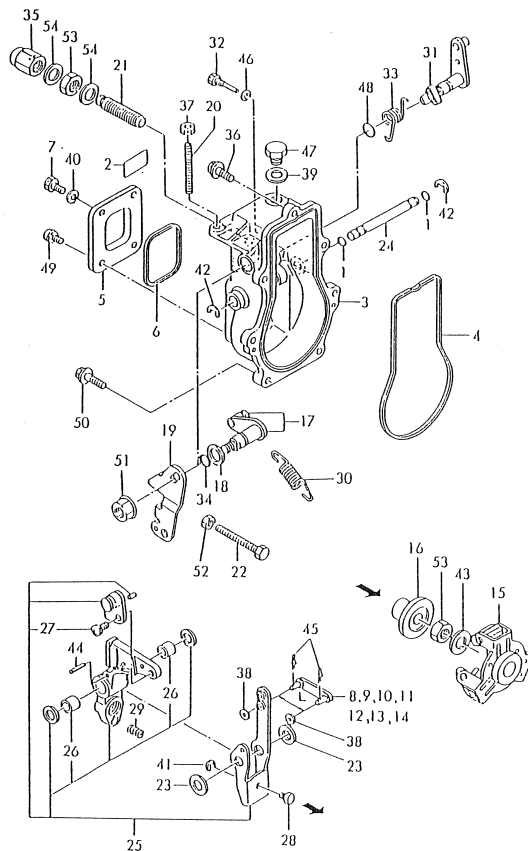
(C)=

(D)=

(E)=

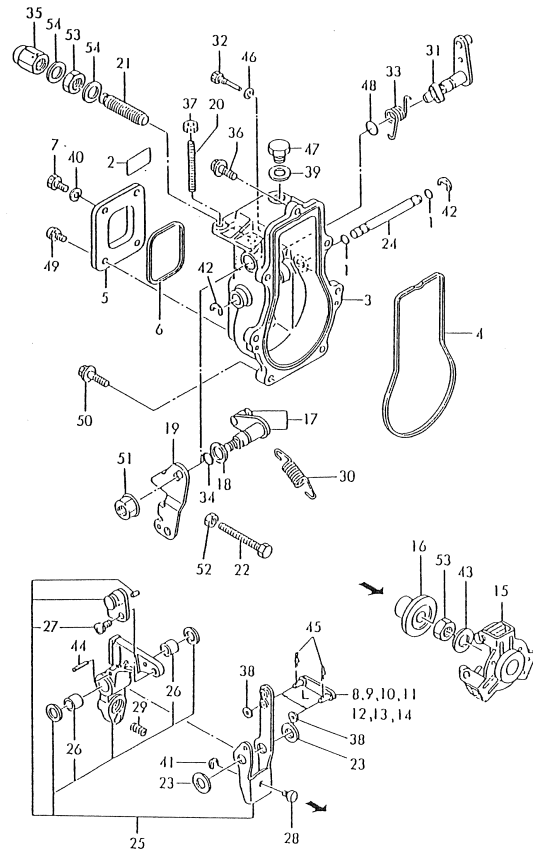
(F)=

029515-61211



No.	Lev.	Parts No.	Description	Qty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	2	129155-51280	O-RING, S6	2							
2	2	129515-51960	LABEL (729515-51360)	1							
2-1	2	129515-51961	LABEL (729515-51361)	1							N
(A=*1989.05)											
3	2	129155-61010	CASE, GOVERNOR	1							
3-1	2	129155-61011	CASE, GOVERNOR	1							N
(A=*1988.)											
4	2	129155-61050	GASKET	1							
5	2	129155-61060	COVER, GOVERNOR CASE	1							
6	2	129155-61070	GASKET	1							
7	2	129155-61090	BOLT	1							Z
(A=*1989.)											
8	2	129155-61120	LINK, L=30 MARK 0	1							
9	2	129155-61130	LINK, L=31 MARK 1	1							
10	2	129155-61140	LINK, L=30.5 MARK 05	1							
11	2	129155-61150	LINK, L=33	1							Z
(A=*1989.)											
12	2	129155-61160	LINK, L=34 MARK4	1							Z
(A=*1989.)											
13	2	129155-61170	LINK, L=28 MARK 8	1							Z
(A=*1989.)											
14	2	129155-61180	LINK, L=29 MARK 9	1							Z
(A=*1989.)											
15	2	129155-61201	WEIGHT ASSY,GOVERNOR	1							
16	2	129155-61341	SLEEVE	1							
17	2	129100-61400	SHAFT ASSY	1							
18	2	129155-61430	SPACER	1							
19	2	129100-61440	LEVER, CONTROL	1							
20	2	129155-61450	BOLT, LIMITER	1							
21	2	171350-61450	LIMITER ASSY, FUEL	1							
21-1	2	129100-61450	LIMITER ASSY, FUEL	1							N
(A=E13302)											
22	2	129155-61460	BOLT, IDLE	1							
23	2	129155-61480	SPACER ASSY	2							
24	2	129155-61490	SHAFT	1							
25	2	129500-61500	LEVER ASSY, GOVERNOR	1							
26	3	129155-61530	BUSH	2							
27	3	26022-060122	SCREW, M6X12	1							
28	2	129155-61540	SHIFTER	1							
29	2	129100-61650	SPRING, CONTROLLER	1							
30	2	171353-61710	SPRING, GOVERNOR	1							
31	2	129155-61801	LEVER, STOP	1							
31-1	2	129255-61802	LEVER, STOP	1							N
(A=*1989.05)											
32	2	129155-61810	PIN	1							
33	2	129155-61820	SPRING, RETURN	1							
33-1	2	129100-61821	SPRING, RETURN	1							N
(A=*1989.01)											
34	2	129155-61830	O-RING, S10	1							
35	2	129100-61930	NUT, CAP	1							
35-1	2	26687-120002	NUT, CAP M12	1							N

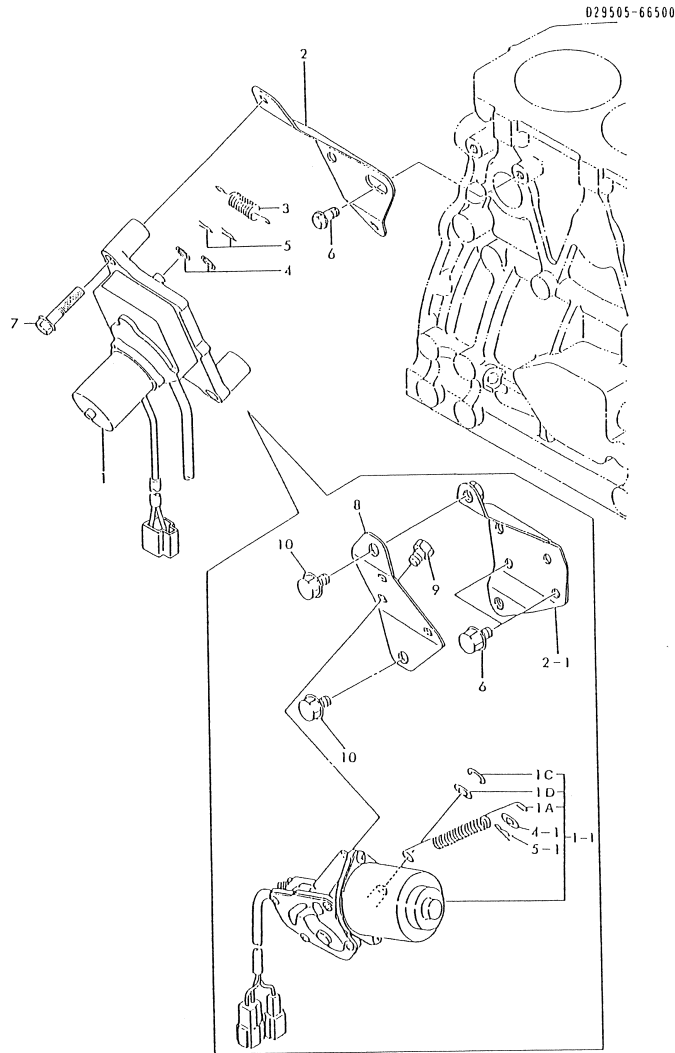
Fig.41. GOVERNOR



029515-61211

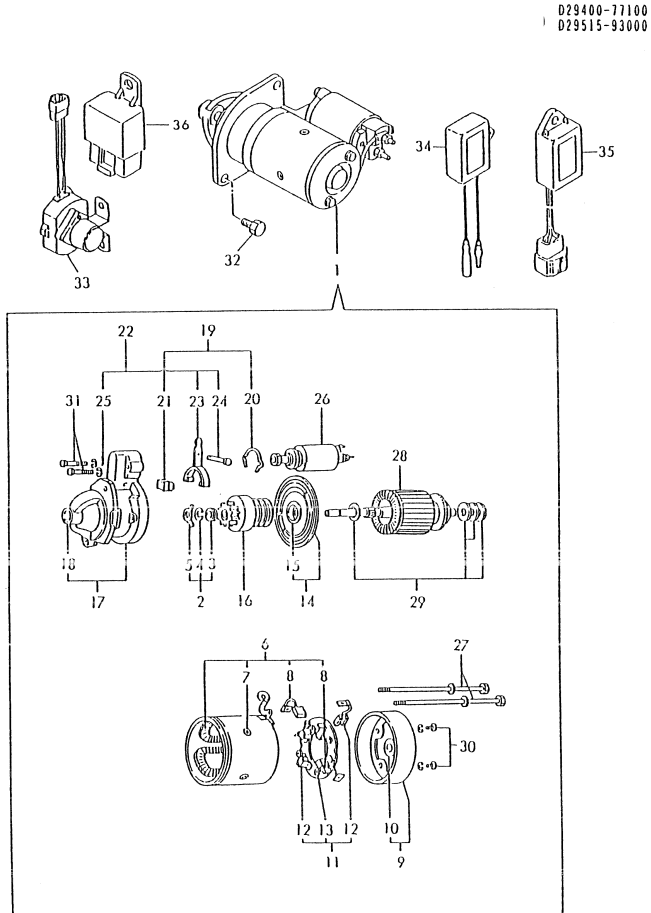
No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
(A=*1989.05)											
36	2	129155-61950	BOLT	1							
37	2	124550-66370	NUT, M6	1							
38	2	22117-040000	WASHER, 4	1							
39	2	22190-100000	WASHER, SEAL 10	1							
39-1	2	43400-500430	SEAL WASHER 10S	1							R
(A=*1989.)											
40	2	22217-050000	WASHER, SPRING 5	1							Z
(A=*1989.)											
41	2	22272-000040	RING, E- 4	1							
42	2	22272-000060	RING, E- 6	2							
43	2	22287-120000	WASHER, 12	1							
44	2	22351-030016	PIN, SPRING 3.0X16	1							
45	2	22360-040000	PIN, SNAP 4	2							
46	2	23414-050000	GASKET, 5X1.0	1							
46-1	2	43400-500390	SEAL WASHER 6S	1							N
(A=*1989.)											
47	2	23887-100002	PLUG, 10	1							
48	2	24311-000080	O-RING, 1AP8.0	1							
48-1	2	24311-240100	O-RING, 1AP10A	1							N
(A=*1989.05)											
49	2	26022-050102	SCREW, M5X10	3							
49-1	2	26022-050102	SCREW, M5X10	4							K
(A=*1989.)											
50	2	26106-060202	BOLT, M6X 20 PLATED	6							
51	2	26366-080002	NUT, M8	1							
52	2	26756-060002	NUT, LOCK M6	1							
53	2	26776-120002	NUT, LOCK M12	2							
54	2	43400-500450	SEAL WASHER 12S	2							

Fig.42. ENGINE STOP



No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129100-66800	MOTOR, STOP	1							
1-1	1	129505-66791	MOTOR ASSY, STOP	1							S
		(A=*1989.)									
1A	2	129505-66830	SPRING, STOP MOTOR	1							W
		(A=*1989.)									
1C	2	129566-66880	RING, SNAP	1							W
		(A=*1989.)									
1D	2	129566-66890	WASHER	1							W
		(A=*1989.)									
2	1	129155-66810	BRACKET, STOP MOTOR	1							
2-1	1	129107-66810	BRACKET, STOP MOTOR	1							S
		(A=*1989.)									
3	1	129555-66820	SPRING, STOP MOTOR	1							Z
		(A=*1989.)									
4	1	22117-080000	WASHER, 8	2							
4-1	1	22117-080000	WASHER, 8	1							K
		(A=*1989.)									
5	1	22360-080000	SNAP PIN 8	2							
5-1	1	22360-080000	SNAP PIN 8	1							K
		(A=*1989.)									
6	1	26106-080122	BOLT, M8X 12 PLATED	2							
7	1	26106-080402	BOLT, M8X 40 PLATED	2							Z
		(A=*1989.)									
8	1	129107-66820	BRACKET, STOP MOTOR	1							W
		(A=*1989.)									
9	1	26116-050102	BOLT, M5X 10 PLATED	3							W
		(A=*1989.)									
10	1	26106-080122	BOLT, M8X 12 PLATED	2							W
		(A=*1989.)									

Fig.43. STARTING MOTOR(COMPONENT PARTS)



(A)=4TNA78L-RNK

(B)=

(C)=

(D)=

(E)=

(F)=

No.	Lev.	Parts No.	Description	Qty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	124250-77012	STARTER, S12-77A	1							
2	2	124250-77070	STOPPER SET, PINION	1							
3	3	124250-77080	STOPPER, PINION	1							
4	3	124250-77090	WASHER, STOPPER	1							
5	3	124250-77100	CLIP, PINION STOPPER	1							
6	2	124250-77110	COIL ASSY, FIELD	1							
7	3	124250-77120	SCREW SET, PORE CORE	4							
8	3	124250-77130	BRUSH (+)	2							
9	2	124250-77140	COVER ASSY, REAR	1							
10	3	124250-77150	METAL, REAR COVER	1							
11	2	124250-77160	HOLDER ASSY, BRUSH	1							
12	3	124250-77170	BRUSH (-)	2							
13	3	124250-77180	SPRING, BRUSH	4							
14	2	124250-77190	BEARING ASSY, CENTER	1							
15	3	124250-77520	BEARING	1							
16	2	124250-77210	PINION ASSY	1							
17	2	124250-77220	CASE ASSY, GEAR	1							
18	3	124250-77230	METAL, GEAR CASE	1							
19	2	124250-77240	COVER SET, DUST	1							
20	3	124250-77250	COVER DUST(1)	1							
21	3	124250-77530	COVER DUST(2)	1							
22	2	124250-77270	LEVER SET, SHIFT	1							
23	3	124250-77280	LEVER SHIFT	1							
24	3	124250-77290	PIN SHIFT LEVER	1							
25	3	124250-77550	PIN	1							
26	2	124250-77310	SWITCH, MAGNETIC	1							
27	2	124250-77320	BOLT, THROUGH	2							
28	2	124250-77500	ARMATURE ASSY	1							
29	2	124250-77510	WASHER KIT	1							
30	2	124250-77540	SCREW, M4X12	2							
30-1	2	26557-040122	SCREW, M4X12	2							N
		(A=E15120)									
31	2	26106-060322	BOLT, M6X 32 PLATED	2							Z
		(A=EXXX)									
32	1	26116-120252	BOLT, M12X 25 PLATED	2							
33	1	171051-77100	RELAY, SAFETY	1							
34	1	160970-77350	RECTIFIER, ZR2117	1							
35	1	128300-77920	TIMER	1							
36	1	119247-77100	RELAY, SAFETY	1							W

(A=*1989.05)

Fig.44. GENERATOR(COMPONENT PARTS)

(A)=4TNA78L-RNK

(B)=

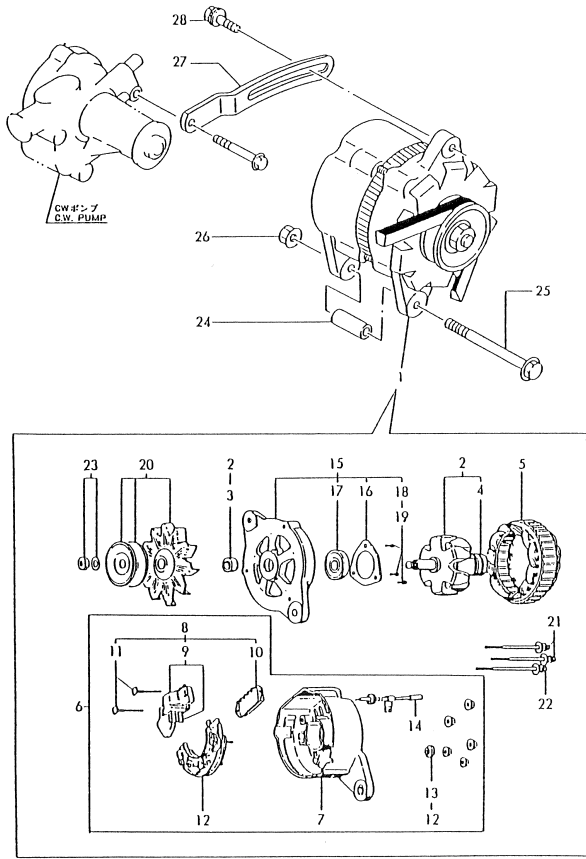
(C)=

(D)=

(E)=

(F)=

D29100-77210
D29100-77310



No.	Lev.	Parts No.	Description	Qty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	124080-77201	GENERATOR, LR135-91	1							
2	2	124080-77300	ROTOR ASSY	1							
3	3	124080-77310	SPACER	1							
4	3	124080-77490	BALL BEARING	1							
5	2	124080-77320	STATOR ASSY	1							
6	2	124080-77330	COVER ASSY	1							
7	3	124080-77340	COVER, REAR	1							
8	3	124080-77350	BRUSH REGULATOR(N/CO	1							
9	4	124080-77360	BRUSH ASSY	2							
10	4	124080-77390	REGULATOR ASSY	1							
11	4	124080-77520	BOLT M5	2							
12	3	124080-77400	DIODE ASSY	1							
13	4	124080-77410	BUSH	1							
14	3	124080-77530	WIRE ASSY, LEAD	1							
15	2	124080-77420	COVER ASSY	1							
16	3	124080-77430	RETAINER, BEARING	1							
17	3	124080-77480	BEARING, 6202DDU	1							
18	3	124080-77500	SCREW KIT	1							
19	4	124080-77510	SCREW 4X12	3							
20	2	124080-77440	PULLEY ASSY	1							
21	2	124080-77450	BOLT, THROUGH	2							
22	2	124080-77460	BOLT, THROUGH	1							
23	2	124080-77470	NUT ASSY, PULLEY	1							
24	1	129150-77340	SPACER	1							
25	1	26106-081202	BOLT, M8X120 PLATED	1							
26	1	26366-080002	NUT, M8	1							
27	1	129410-77330	ADJUSTER	1							
27-1	1	129100-77330	ADJUSTER	1							N
				(A=EXXX)							
28	1	26014-080252	BOLT, M8X 25	1							

Fig.45. AIR HEATER

(A)=4TNA78L-RNK
(B)=
(C)=

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

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	129120-77501	HEATER	1							
2	1	129150-77510	GASKET	1							
2-1	1	129150-77511	GASKET	1							N
			(A=*1990.06)								
3	1	26106-080352	BOLT, M8X 35 PLATED	4							

D29100-77501

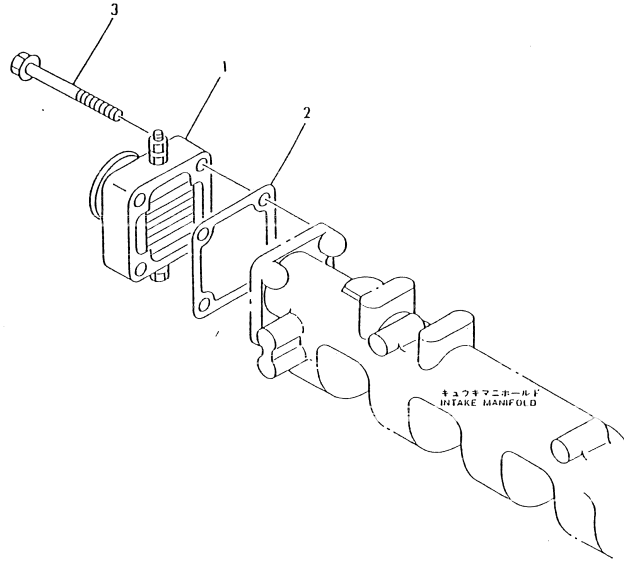
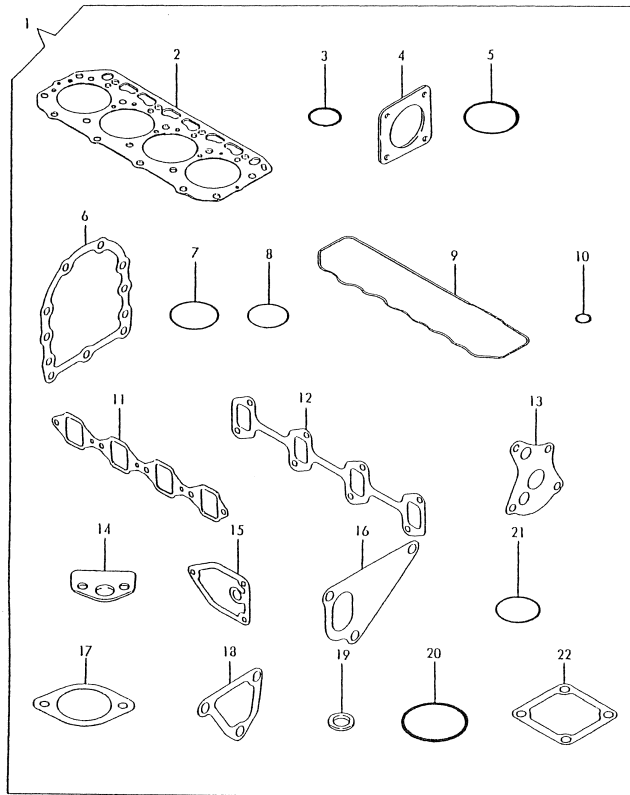


Fig.46. GASKET SET



(A)=4TNA78L-RNK

(B)=

(C)=

(D)=

(E)=

(F)=

No.	Lev.	Parts No.	Description	Q'ty						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	729515-92600	GASKET SET	1							
1-1	1	729515-92601	GASKET SET	1							N
(A=EXXX)											
2	2	129555-01332	GASKET, HEAD	1							
3	2	24311-000320	O-RING, 1AP32.0	1							
4	2	124240-01882	GASKET	1							
4-1	2	124240-01883	GASKET	1							N
(A=*1990.01)											
5	2	121850-51960	O-RING	1							
6	2	129150-01660	GASKET	1							Z
(A=*1988.)											
7	2	24341-000500	O-RING, 1AS50.0	1							
8	2	121420-01760	O-RING	1							
8-1	2	24311-000320	O-RING, 1AP32.0	1							N
(A=E14065)											
9	2	129550-11310	GASKET, BONNET	1							
10	2	24311-000120	O-RING, 1AP12.0	3							
11	2	129550-12110	GASKET, MANIFOLD	1							
11-1	2	129550-12111	GASKET, MANIFOLD	1							N
(A=*1990.06)											
12	2	129550-13110	GASKET	1							
13	2	129150-32020	GASKET, PUMP	1							
14	2	129150-35040	GASKET	1							
14-1	2	129150-35041	GASKET	1							N
(A=*1990.06)											
15	2	129150-35110	GASKET	1							
15-1	2	129150-35111	GASKET	1							N
(A=*1990.06)											
16	2	129100-42020	GASKET, WATER PUMP	1							
17	2	129795-49550	GASKET	1							
17-1	2	129795-49551	GASKET	1							N
(A=*1990.06)											
18	2	129100-49840	GASKET	1							
19	2	124465-44950	GASKET, 16	2							
20	2	24321-000650	O-RING, 1AG65.0	1							
21	2	102103-55520	O-RING	1							
22	2	129150-77510	GASKET	1							
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