

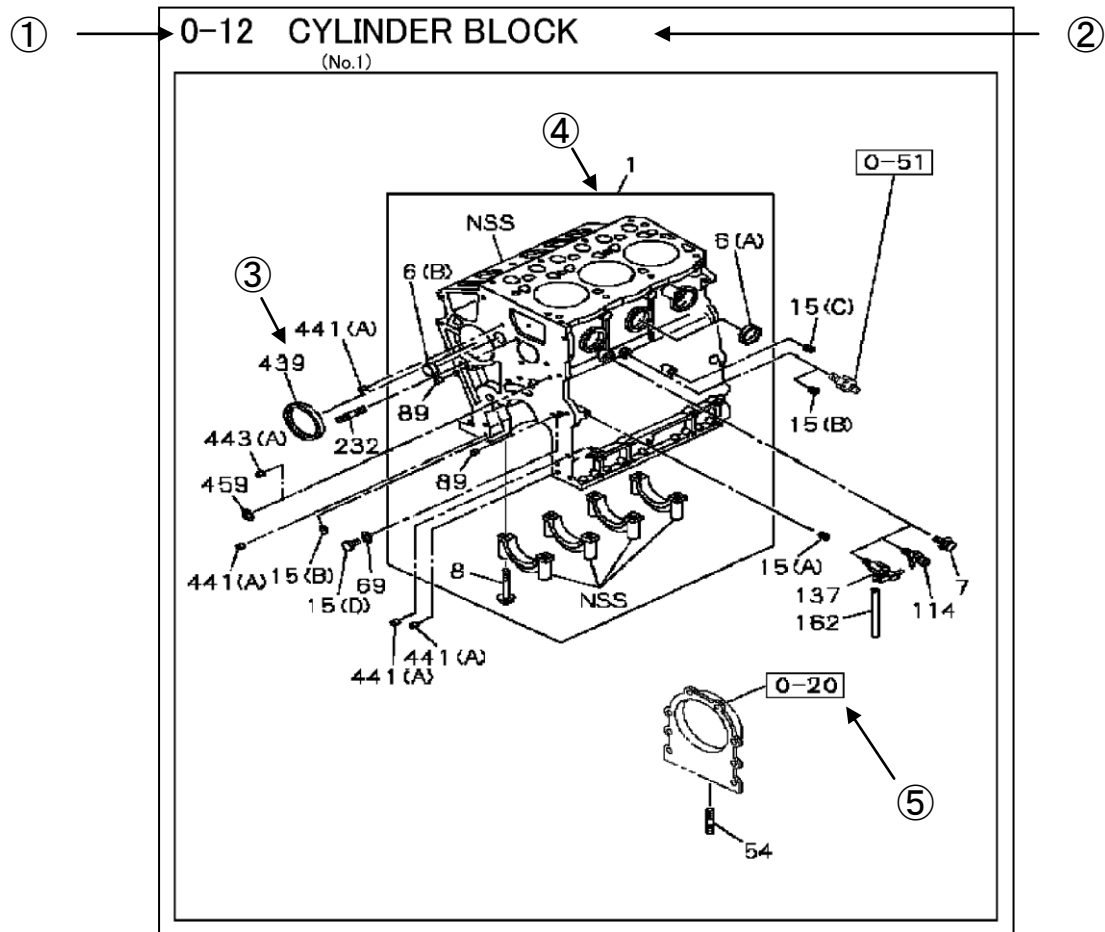
ISUZU

DIESEL ENGINE

4LE2 XAGD03

PARTS CATALOG

How to refer to the Parts Catalog



① FIG NO.

A 3-digit (X-XX) Figure Number has been assigned to every section/illustration of the catalog.

The first digit of the Figure Number identifies the primary catalog section.

And the second and third digits identify the subsections.

EXAMPLE : 0-12 = Engine (0) ; Cylinder Block (12).

② ILLUSTRATION TITLE

The title contains a generic name(s) for the item(s) illustrated.

③ **KEY NUMBER**

The Key Number connects the illustrated part to the appropriate text.

Items identified with a “NSS” (Not Serviced Separately) are not available individually, however, they may be available as part of an assembly.

④ **ASSEMBLIES, KITS, SETS AND THEIR COMPONENTS**

Assemblies, Kits and/or Sets are shown within a frame/box. Also shown within the frame/box are any components included with the assembly, Kit or Set.

⑤ **SEE FIG NO.**

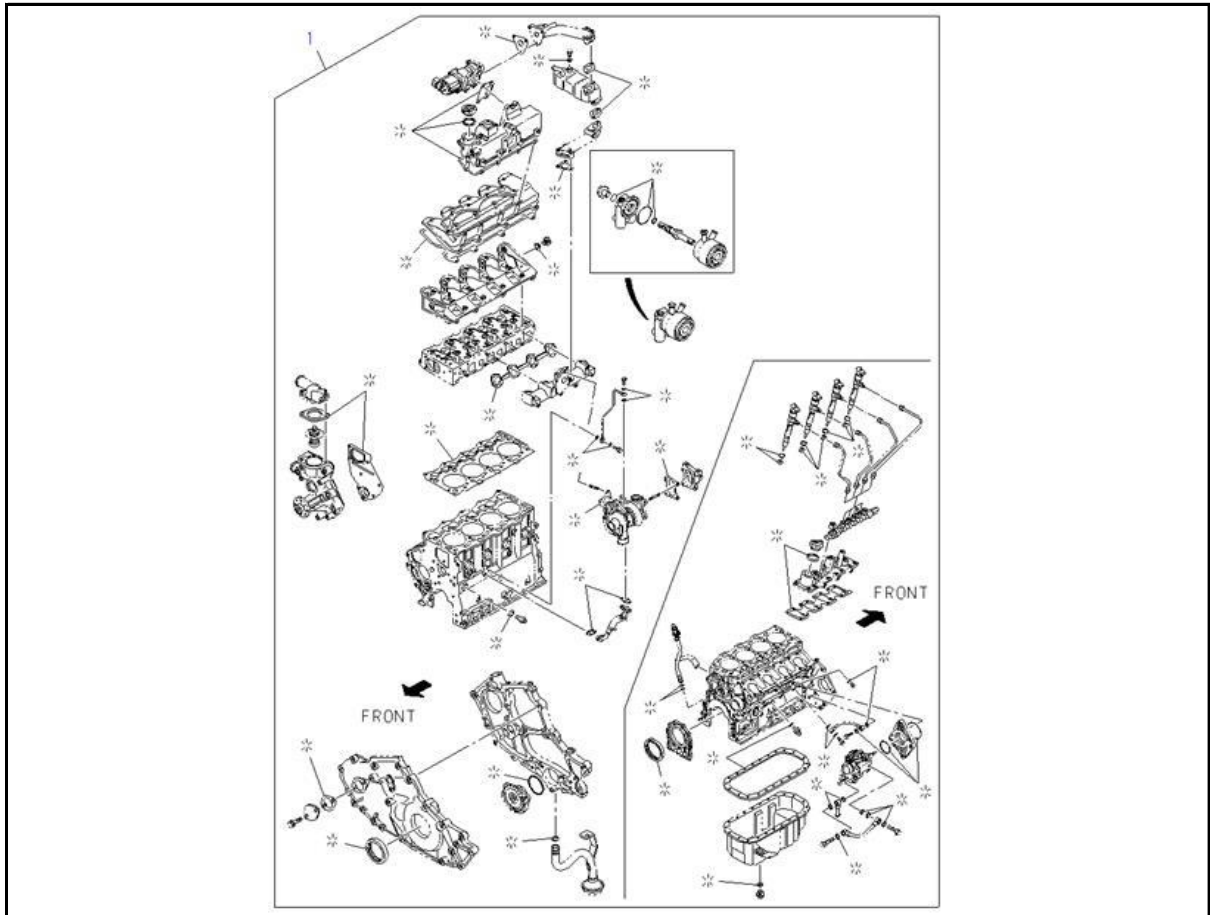
Items shown as a point of reference are not identified with a Key Number. These items are shown because of the way they fit within the illustration. They are described in more detail in another section of the Catalog.

The applicable catalog section is shown next to the illustration.

FIGURE NUMBER INDEX

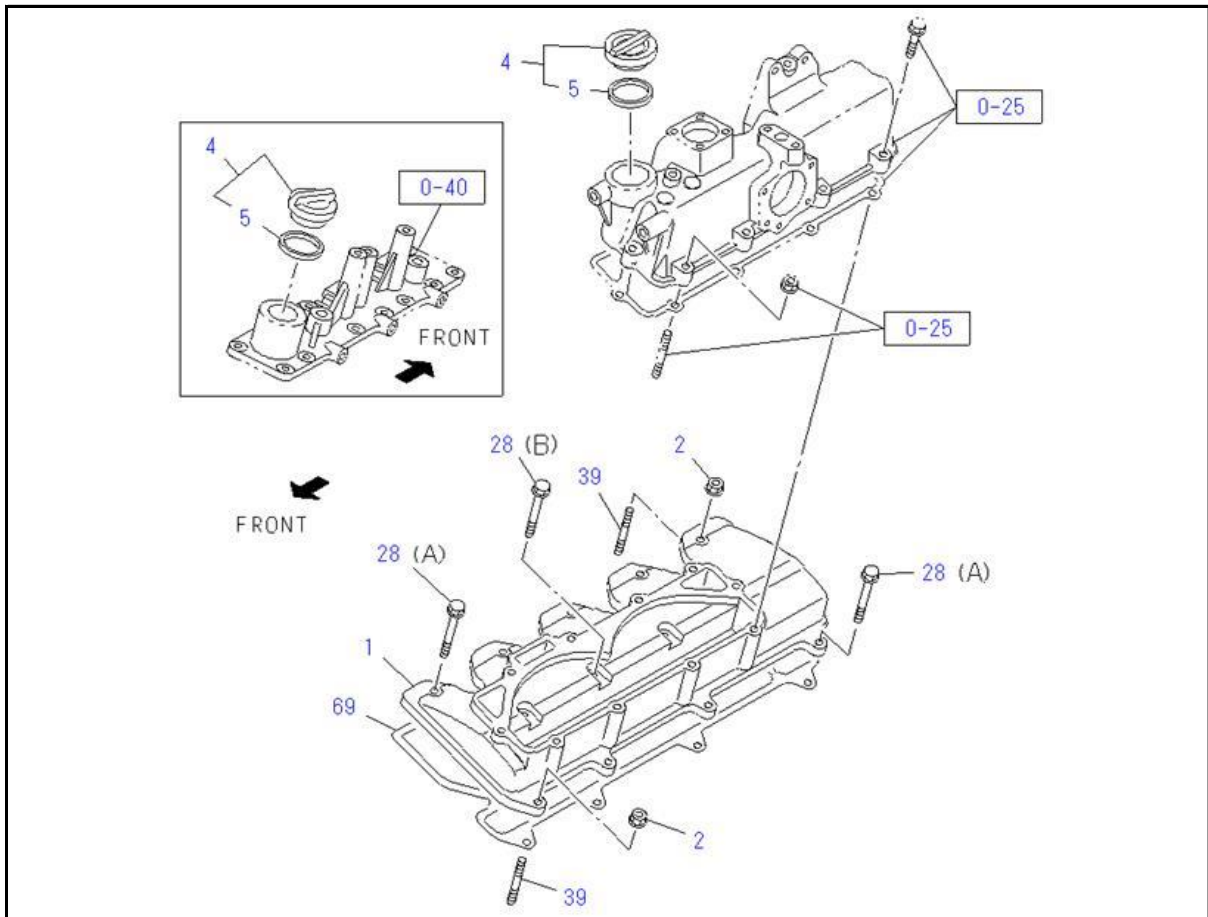
FIG NO.	TITLE (SUBTITLE)	PAGE
0-05	ENGINE GASKET KIT	1
0-10	CYLINDER HEAD COVER	2
0-11	CYLINDER HEAD	3
0-12	CYLINDER BLOCK	5
0-13	OIL PAN AND LEVEL GAUGE	7
0-14	CAMSHAFT AND VALVE	8
0-15	CRANKSHAFT,PISTON AND FLYWHEEL	11
0-20	TIMING GEAR CASE AND FLYWHEEL HOUSING	13
0-25	INLET MANIFOLD	15
0-27	EXHAUST MANIFOLD	17
0-30	WATER PUMP AND CORROSION RESISTOR	18
0-31	THERMOSTAT AND HOUSING	19
0-32	WATER PIPING; ENGINE	20
0-33	FAN AND FAN BELT	21
0-36	TURBOCHARGER SYSTEM	22
0-37	TURBOCHARGER	24
0-40	FUEL INJECTION SYSTEM	25
0-41	FUEL FILTER AND BRACKET	28
0-42	FUEL PUMP AND PIPE	29
0-50	OIL COOLER AND OIL FILTER	30
0-51	OIL PUMP AND OIL STRAINER	31
0-52	OIL AND VACUUM PIPING; ENGINE	32
0-57	EMISSION PIPING	33
0-60	ENGINE ELECTRICAL CONTROL PARTS	34
0-65	STARTER	36
0-66	GENERATOR	37
1-50	EXHAUST PIPE AND SILENCER	38
8-10	WIRING HARNESS AND FUSE	39
8-15	FIXING PARTS; WIRING HARNESS	40
8-25	SWITCH AND RELAY; INSTRUMENT PANEL	41

0-05 ENGINE GASKET KIT



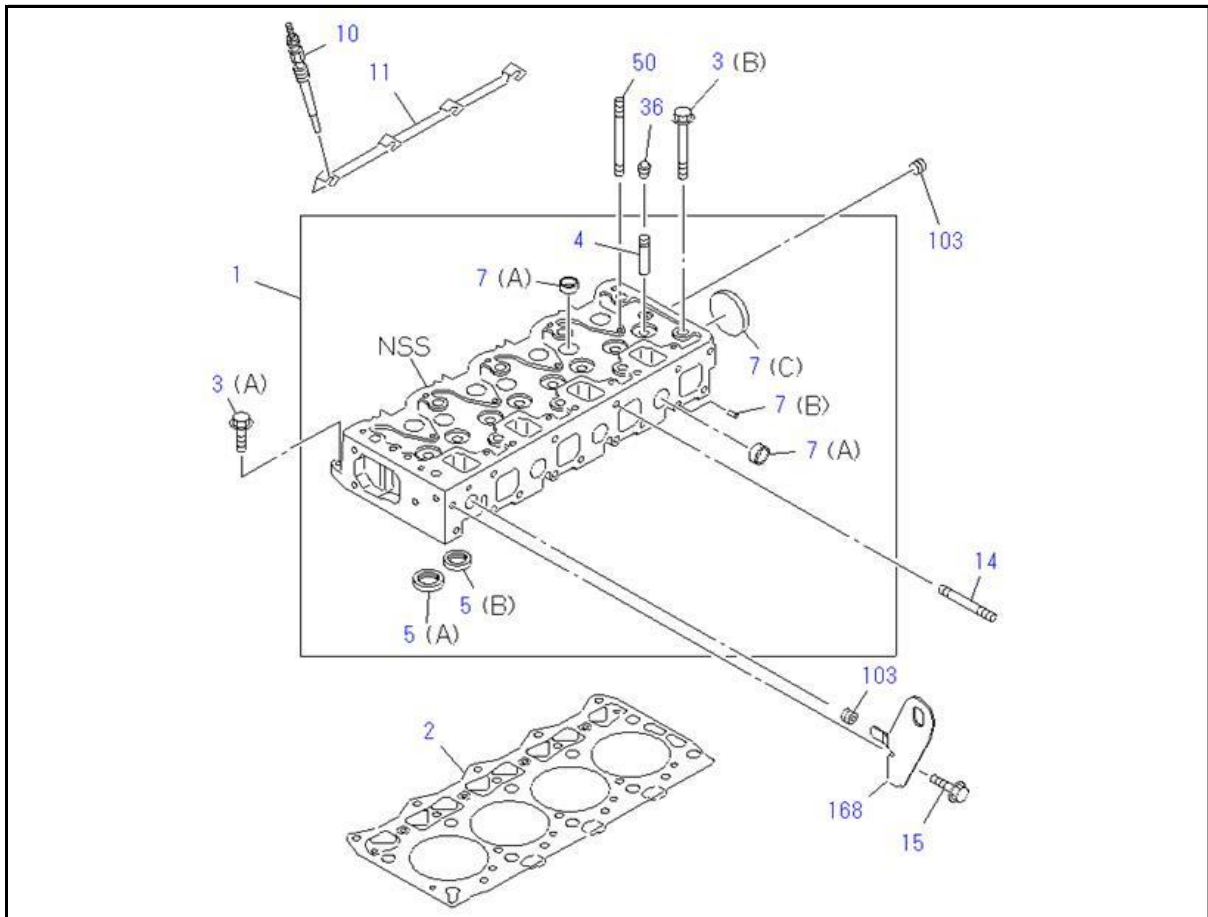
KEY No.	Part no.	qty	Part description	Engine serial no.
1	5-87818-010-0	1	GASKET SET; ENG OVERHAUL	

0-10 CYLINDER HEAD COVER



KEY No.	Part no.	qty	Part description	Engine serial no.
1	8-98210-296-0	1	COVER; CYL HD	
2	0-91180-106-0	2	NUT; COVER,HD M6 FLANGE	
4	8-94425-685-2	2	CAP; OIL FILLER	
5	8-94123-623-1	2	GASKET; OIL FILLER ID=32 OD=40	
28 (A)	0-28050-620-0	7	BOLT; HD COVER M6X20 FLANGE	
28 (B)	0-28050-645-0	3	BOLT; HD COVER M6X45 FLANGE	
39	0-41010-620-0	2	STUD; COVER,HD M6X20 L=28	
69	8-98030-538-1	1	GASKET; HD TO COVER	

0-11 CYLINDER HEAD

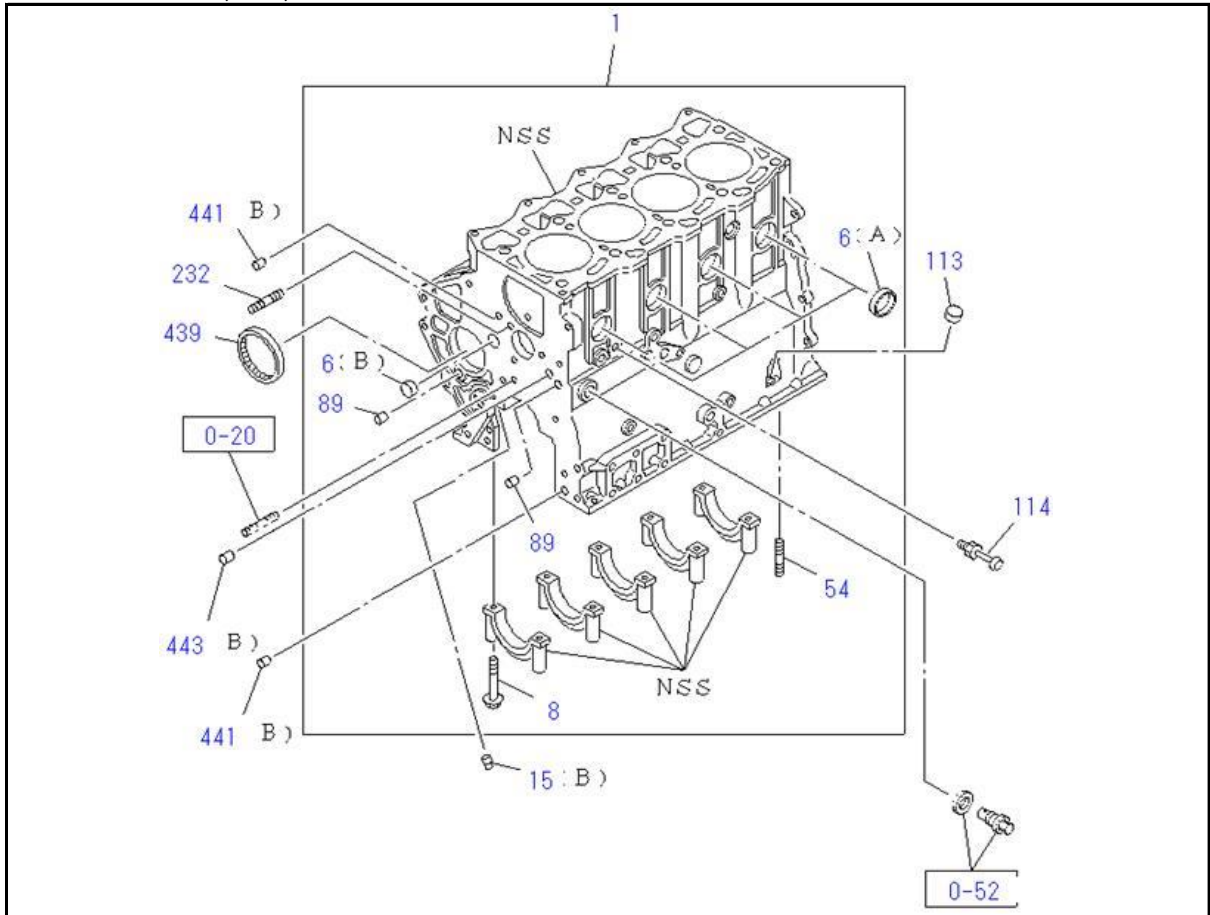


KEY No.	Part no.	qty	Part description	Engine serial no.
1	8-98228-829-0	1	HEAD ASM; CYL	
2	8-98232-125-0	1	GASKET; CYL HD	
3 (A)	8-94463-784-0	5	BOLT; CYL HD TO BLOCK M8X25	
3 (B)	8-97036-959-1	10	BOLT; CYL HD TO BLOCK M12X89	
4	8-97231-969-0 <8-97031-749-0>	8	GUIDE; VLV	
5 (A)	8-97045-391-2	4	SEAT; VLV INSERT INLET	
5 (B)	8-97045-392-0	4	SEAT; VLV INSERT EXHAUST	
7 (A)	8-97209-609-0	6	CUP; SEALING,CYL HEAD OD=22	
7 (B)	8-97233-429-0	5	CUP; SEALING,CYL HEAD OD=8	
7 (C)	8-97036-550-1 <8-97351-451-0>	1	CUP; SEALING,CYL HEAD OD=45	
10	8-94133-759-9	4	PLUG; GLOW BOSCH 12V	
11	8-97229-381-0	1	CONNECTOR; GLOW PLUG	
14	8-94155-869-0	8	STUD; EXH MANIF M8X72 L=86	
15	0-28050-816-0	1	BOLT; HANGER,FRT M8X16 FLANGE	
36	8-94110-559-1	8	SEAL; OIL,VLV GUIDE	
50	8-97094-641-1	6	STUD; ROCKER SHAFT BRKT M6X45 L=53	
103	5-09605-005-0	2	PLUG; HD PT 3/8	

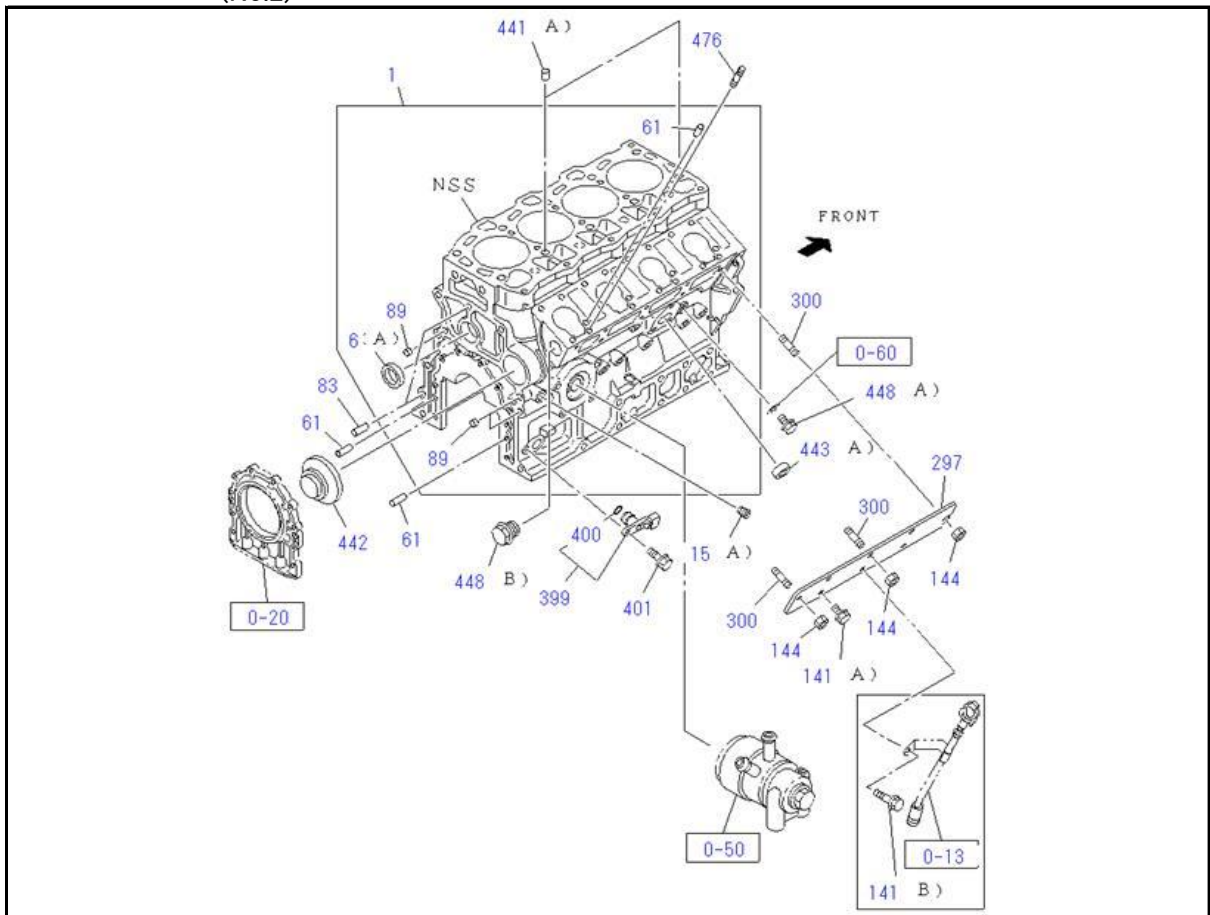
KEY No.	Part no.	qty	Part description	Engine serial no.
168	8-97085-389-0	1	HANGER; ENG,FRT	

0-12 CYLINDER BLOCK

(No.1)



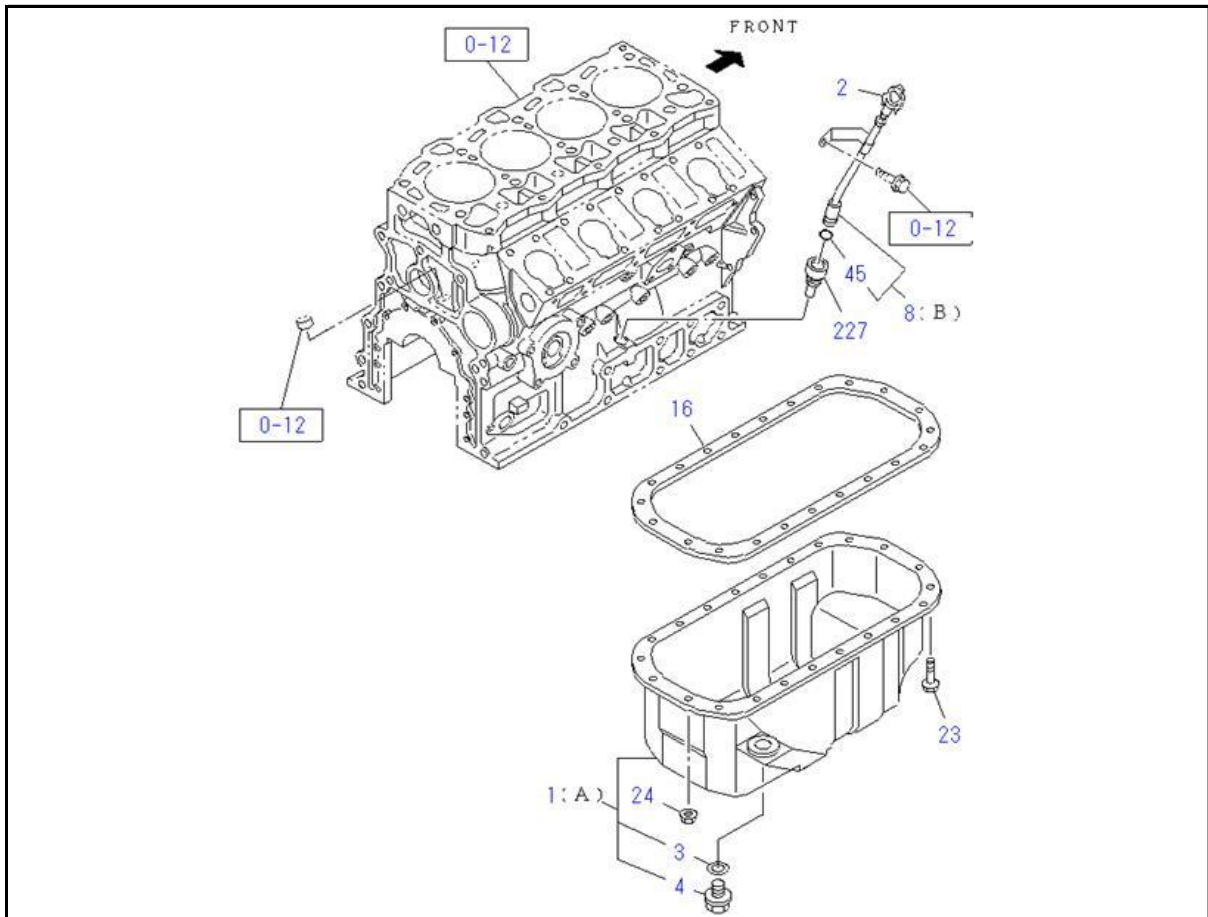
(No.2)



0-12 CYLINDER BLOCK

KEY No.	Part no.	qty	Part description	Engine serial no.
1	8-98208-655-0	1	BLOCK ASM; CYL	
6 (A)	8-94229-853-0	5	CUP; SEALING OD=35	
6 (B)	8-97209-609-0	1	CUP; SEALING OD=22	
8	8-94167-470-1	10	BOLT; BRG CAP M11X83	
15 (A)	1-09605-019-0	1	PLUG; OIL GALLERY PT 1/4	
15 (B)	9-09204-510-0	1	PLUG; OIL GALLERY PT 1/8	
54	0-41010-620-0	4	STUD; OIL PAN TO BLOCK M6X20 L=28	
61	9-08150-616-0	6	PIN; STRAIGHT OD=6 L=16	
83	9-08150-816-0 <9-08160-816-0>	2	PIN; FLYWHEEL HSG OD=8 L=16	
89	5-09600-013-0	6	CUP; SEALING,OIL GALLERY OD=12.3	
113	5-11129-003-0	1	CUP; SEALING OD=15.6	
114	5-13721-028-1	1	NIPPLE; WATER DRAIN	
141 (B)	0-28050-616-0	1	BOLT; COVER M6X16 FLANGE	
141 (A)	0-28050-612-0	4	BOLT; COVER M6X12 FLANGE	
144	8-97329-622-0	3	NUT; COVER FIX M6 W/LK WASHER	
232	8-97262-146-1	1	STUD; WATER PUMP M8X50 L=62	
297	8-97118-989-2	1	COVER; CYL BLOCK	
300	8-97262-147-1	3	STUD; COVER M6X16 L=25	
399	8-97312-108-1	1	SENSOR; CRANKSHAFT POSITION	
400	8-97369-404-0	1	GASKET; CRANKSHAFT POSITION SENSOR ID=14.2 OD=18.8	
401	0-28050-616-0	1	BOLT; SENSOR M6X16 FLANGE	
439	8-98063-794-0	1	BEARING; NEEDLE NSK	
441 (A)	8-94200-819-0	2	DOWEL; CYL BLOCK OD=15.25	
441 (B)	9-11229-058-1	2	DOWEL; CYL BLOCK OD=11 L=8	
442	8-97047-142-1	1	PLUG; THRUST	
443 (A)	1-09600-012-2	1	CAP; SEALING OD=32	
443 (B)	5-09600-013-0	1	CAP; SEALING OD=12.3	
448 (A)	5-09604-016-0	1	PLUG; C/BL M14X9	
448 (B)	8-97102-451-0	1	PLUG; C/BL	
476	1-09305-005-0	7	STUD; BRKT M8X20 L=32	

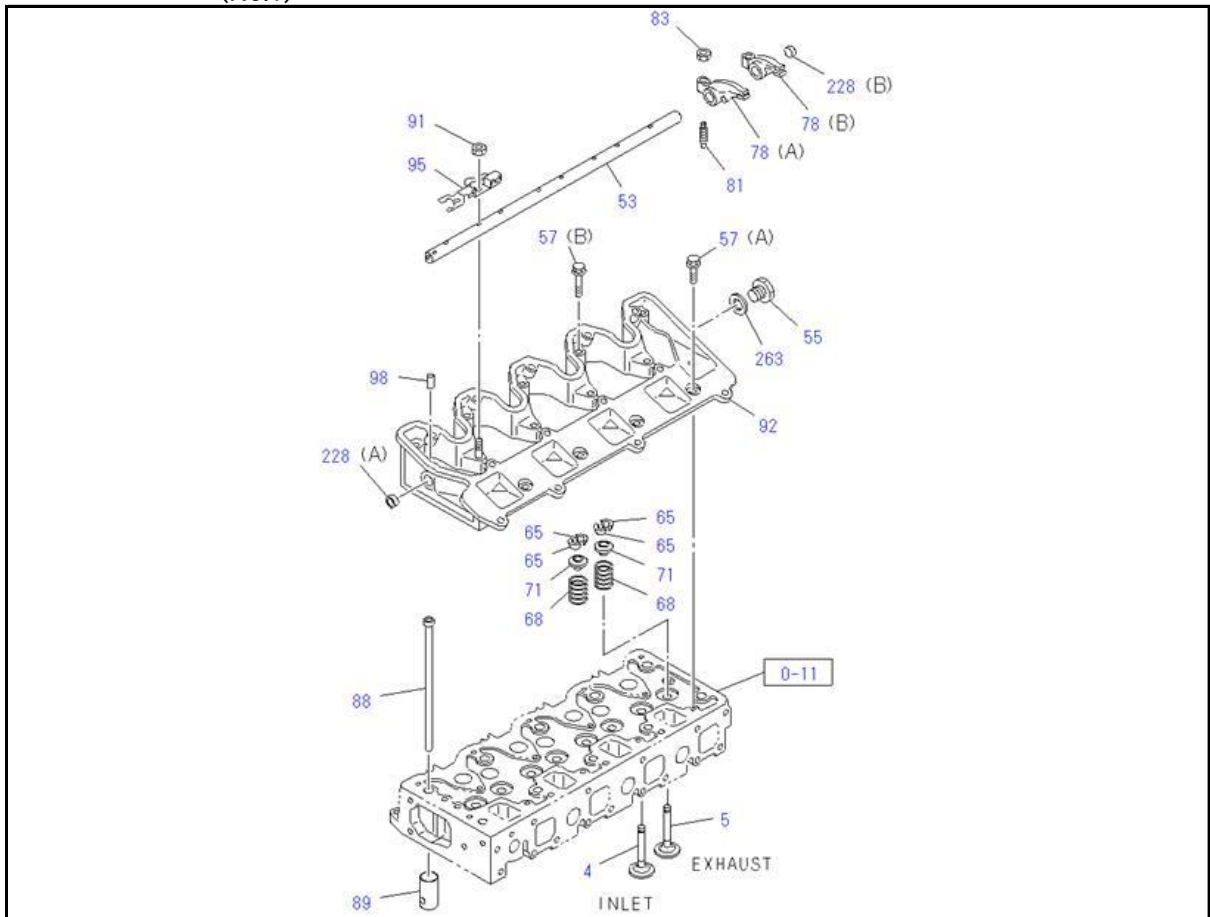
0-13 OIL PAN AND LEVEL GAUGE



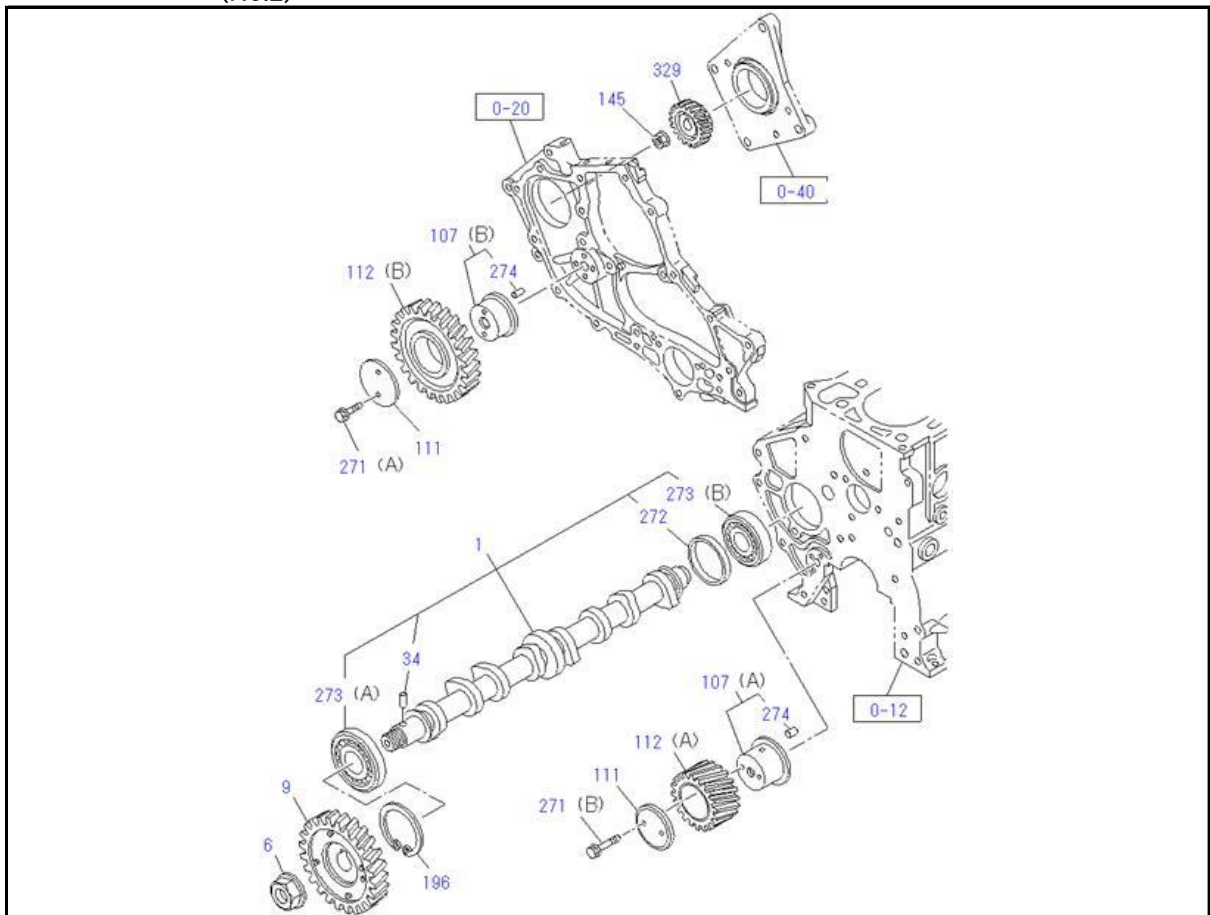
KEY No.	Part no.	qty	Part description	Engine serial no.
1 (A)	8-98079-863-0	1	PAN ASM; OIL	
2	8-98089-222-1	1	GAUGE; OIL LEVEL	
3	1-09623-058-0	1	GASKET; DRAIN PLUG ID=26.8	
4	1-09604-022-0	1	PLUG; DRAIN,OIL M24X17	
8 (B)	8-98089-059-0	1	TUBE; GUIDE,OIL LEVEL GAUGE	
16	8-97314-914-0	1	GASKET; OIL PAN TO C/BL	
23	8-98079-791-0	18	BOLT; OIL PAN M6X20 W/WASHER	
24	8-97329-622-0	4	NUT; OIL PAN M6 W/LK WASHER	
45	5-09623-002-0	1	GASKET; GUIDE TUBE ID=11	
227	8-97363-253-0	1	NIPPLE; GUIDE TUBE	

0-14 CAMSHAFT AND VALVE

(No.1)



(No.2)

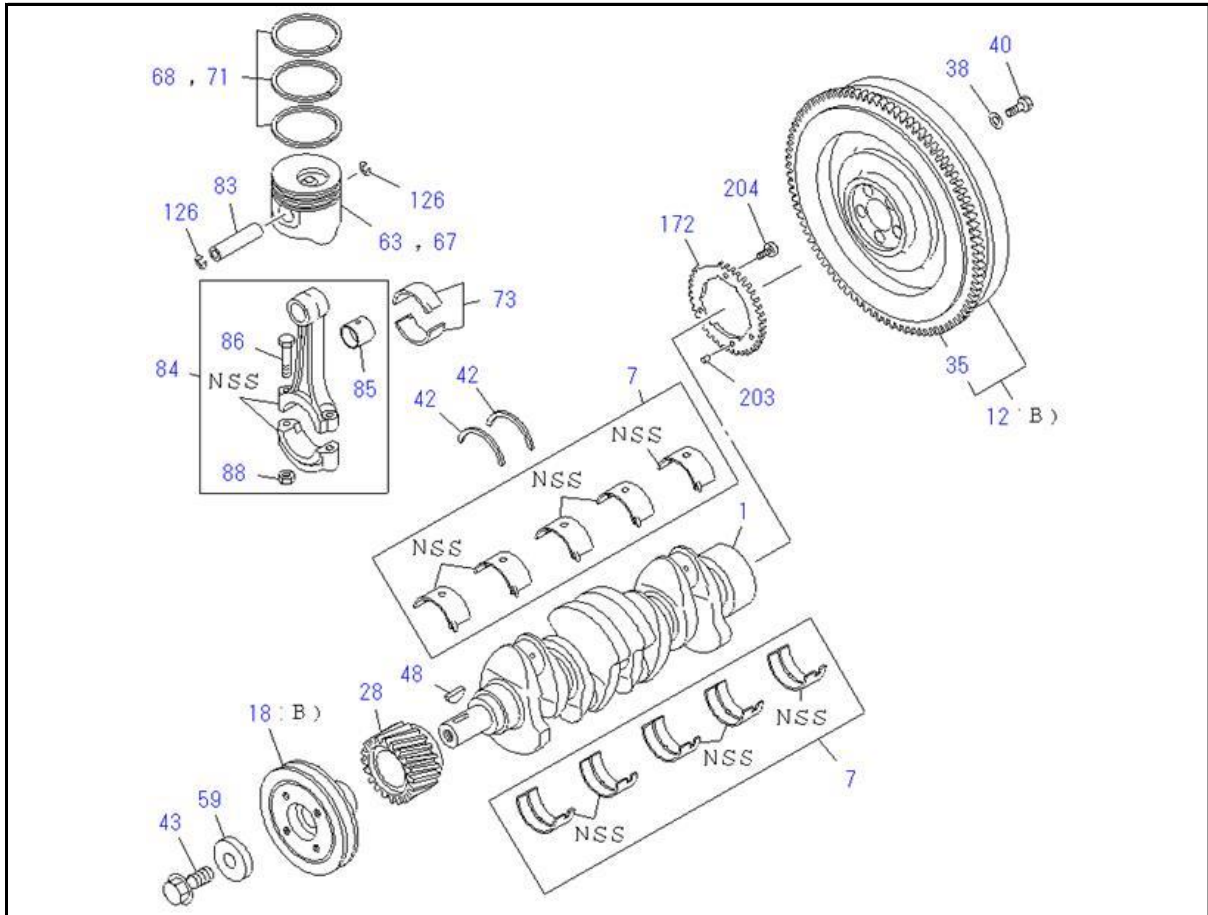


0-14 CAMSHAFT AND VALVE

KEY No.	Part no.	qty	Part description	Engine serial no.
1	8-98208-656-1	1	CAMSHAFT	
4	8-97102-123-1	4	VALVE; INL	
5	8-97045-410-3	4	VALVE; EXH	
6	8-97303-225-0	1	NUT; CM/SHF GEAR M20 H=8	
9	8-98208-658-1	1	GEAR; CM/SHF	
34	8-97173-670-0	1	PIN; CM/SHF OD=5 L=7	
53	8-97118-656-1	1	SHAFT; ROCKER ARM	
55	8-98042-944-0	1	PLUG; ROCKER SHAFT END M14X9	
57 (A)	0-28050-625-0	5	BOLT; ROCKER ARM BRKT M6X25 FLANGE	
57 (B)	0-28050-650-0	5	BOLT; ROCKER ARM BRKT M6X50 FLANGE	
65	8-94239-501-0	16	COLLAR; SPLIT	
68	8-97034-629-1	8	SPRING; VLV	
71	8-94251-031-1	8	SEAT; SPR	
78 (A)	8-97212-518-0	4	ARM; ROCKER INLET	
78 (B)	8-97212-520-0	4	ARM; ROCKER EXHAUST	
81	8-97010-485-0	8	SCREW; ADJ,ROCKER ARM	
83	0-91111-506-0	8	NUT; ADJ SCREW,LK M6	
88	8-98273-084-0	8	ROD; PUSH	
89	8-97034-630-1 <8-98257-766-0>	8	TAPPET; VLV	
91	8-97329-622-0	6	NUT; ROCKER SHAFT M6 W/LK WASHER	
92	8-98048-889-0	1	BRACKET; ROCKER ARM	
95	8-97070-698-2	4	SPRING; ROCKER SHAFT	
98	9-08150-516-0	1	PIN; SHAFT SET OD=5 L=16	
107 (A)	8-97072-829-1	1	SHAFT; IDLE GEAR	
107 (B)	8-97129-780-2	1	SHAFT; IDLE GEAR	
111	5-12535-005-1	2	COLLAR; THRUST,IDLE GEAR	
112 (A)	8-98208-661-0	1	GEAR; IDLE	
112 (B)	8-98208-663-0	1	GEAR; IDLE	
145	0-91180-214-0	1	NUT; FLANGE M14 FLANGE	
196	9-09180-162-0	1	RING; SNAP ID=57.9	
228 (A)	5-09600-013-0 <9-11129-083-0>	1	CUP; SEALING,CAMSHAFT OD=12	
228 (B)	8-97233-429-0	1	CUP; SEALING,CAMSHAFT OD=8	
263	9-09571-414-0	1	GASKET; CAM END ID=14.2 OD=20.0	
271 (A)	0-28060-845-0	2	BOLT; COLLAR M8X45 FLANGE	
271 (B)	0-28060-860-0	2	BOLT; COLLAR M8X60 FLANGE	
272	8-97062-048-0	1	RING; CAMSHAFT	
273 (A)	9-00090-610-0	1	BEARING; CAMSHAFT NSK ID=25 OD=62	
273 (B)	9-00090-657-0	1	BEARING; CAMSHAFT NSK ID=25 OD=52	

KEY No.	Part no.	qty	Part description	Engine serial no.
274	8-98146-601-0	2	PIN; IDLE SHAFT OD=5 L=12 SPRING PIN	
329	8-98208-660-0	1	GEAR; INJ PUMP	

0-15 CRANKSHAFT,PISTON AND FLYWHEEL

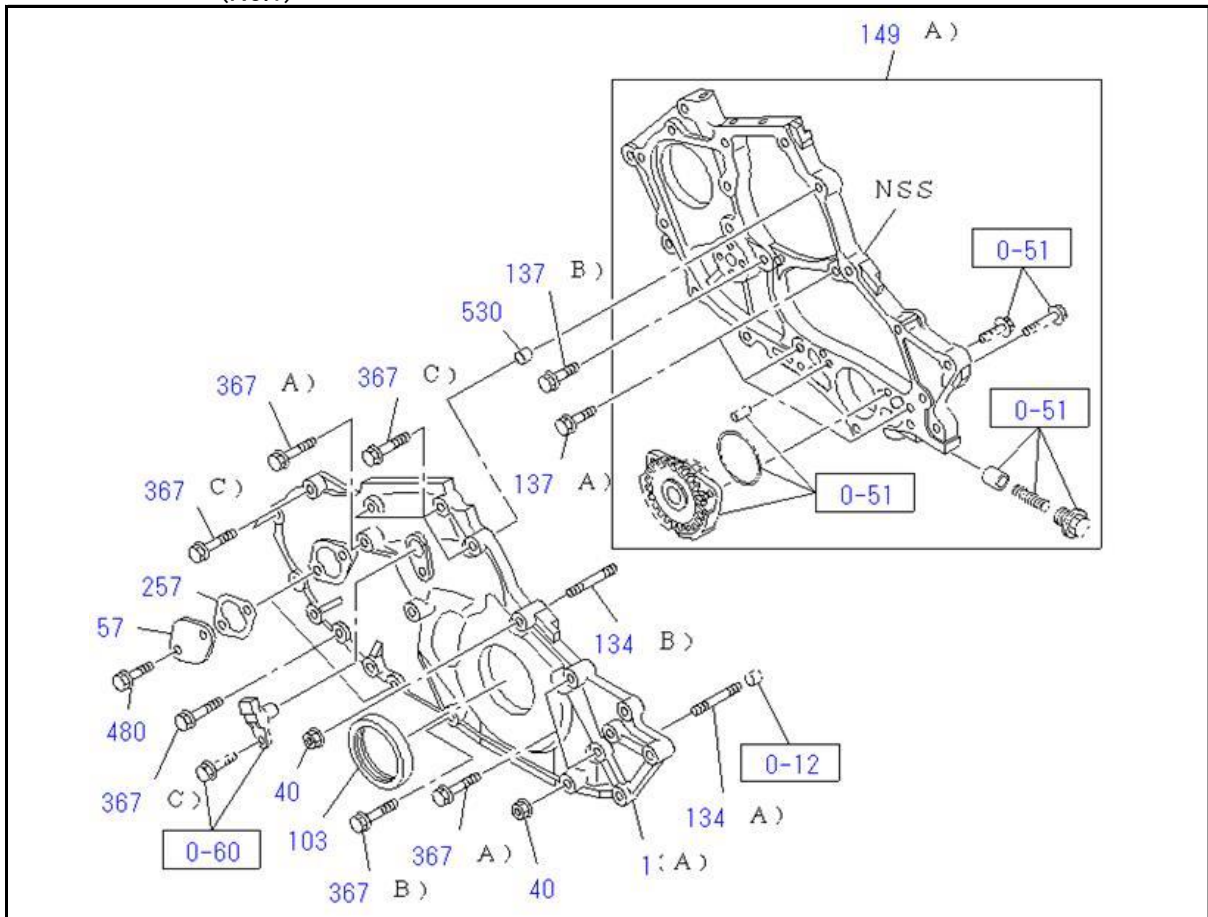


KEY No.	Part no.	qty	Part description	Engine serial no.
1	8-98208-670-0	1	CRANKSHAFT	
7	8-98089-084-0	1	METAL KIT; CRANKSHAFT,STANDARD	
12 (B)	8-97252-438-2	1	FLYWHEEL	
18 (B)	8-98094-099-1	1	PULLEY; CR/SHF OD=134	
28	8-97328-612-0	1	GEAR; CR/SHF	
35	8-94419-602-1	1	GEAR; RING Z=108 T=8.9	
38	8-97023-268-0	6	WASHER; FLYWHEEL	
40	8-94133-328-1	6	BOLT; FLYWHEEL M12X32	
42	8-98063-783-0	2	WASHER; THRUST,CR/SHF	
43	8-94386-079-0	1	BOLT; CR/SHF PULLEY M14X34 FLANGE	
48	8-94201-641-0	1	KEY; WOODRUFF,CR/SHF	
59	8-94134-792-0	1	WASHER; CR/SHF PULLEY	
63	8-98243-709-0	4	PISTON	
67	8-98243-714-0	4	PISTON; O/S=0.25	
68	8-98095-215-0	4	RING SET; PISTON,STANDARD	
71	8-98095-216-0	4	RING SET; PISTON,O/S=0.25	
73	8-98095-713-0	4	METAL SET; CONN ROD,STANDARD	
83	5-12211-017-0	4	PIN; PISTON	
84	8-98075-776-1	4	ROD ASM; CONN	
85	8-98063-826-0	4	BUSHING; CONNROD	
86	8-98141-649-0 <8-98169-140-0>	8	BOLT; CONNROD 3/8-24 UNF L=53	
88	8-94377-785-0	8	NUT; CONNROD 3/8-24 UNF	
126	8-94369-905-0	8	RING; SNAP,PISTON PIN	
172	8-98210-267-0	1	ROTOR; CRANK SENSOR	

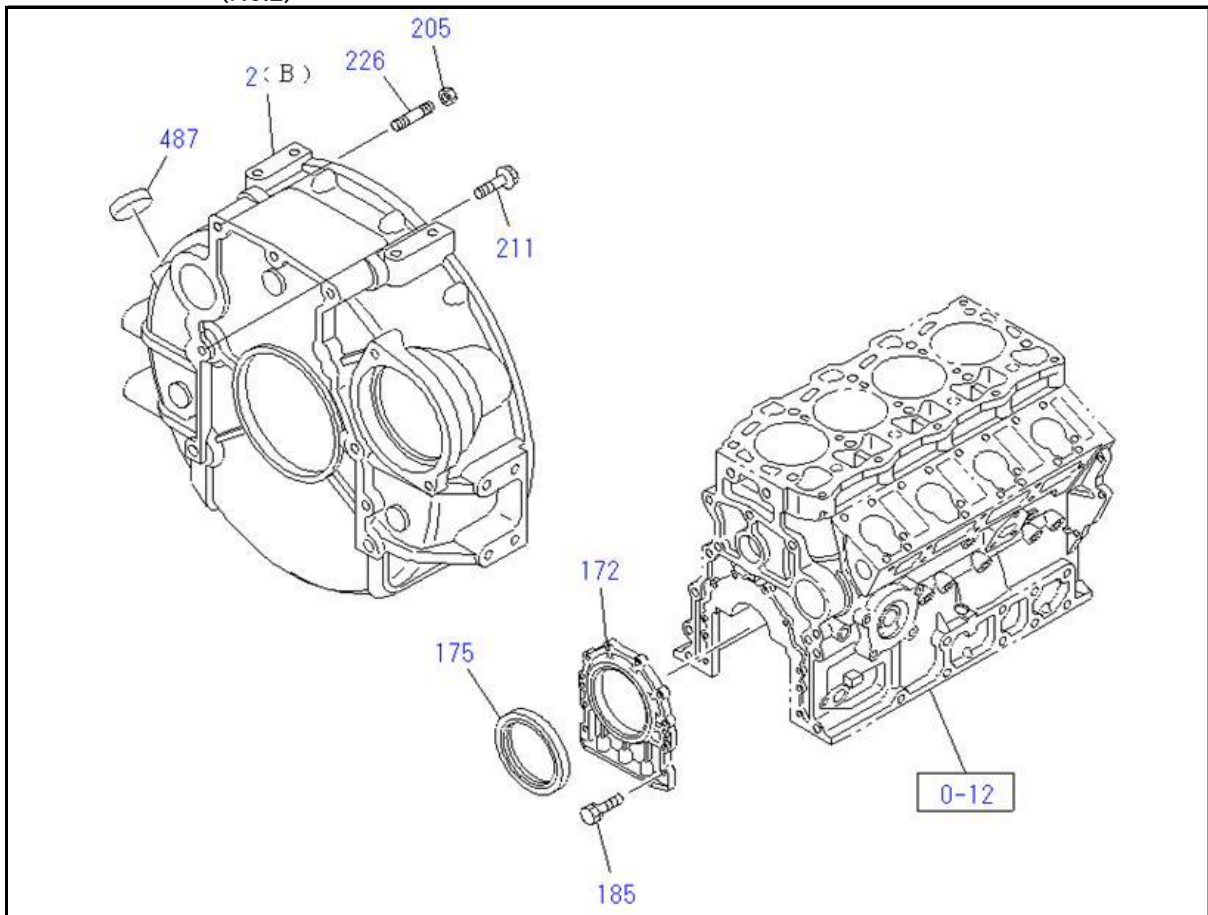
KEY No.	Part no.	qty	Part description	Engine serial no.
203	9-08160-508-0	1	PIN; ROTOR OD=5 L=8	
204	8-98038-343-0	3	BOLT; ROTOR	

0-20 TIMING GEAR CASE AND FLYWHEEL HOUSING

(No.1)



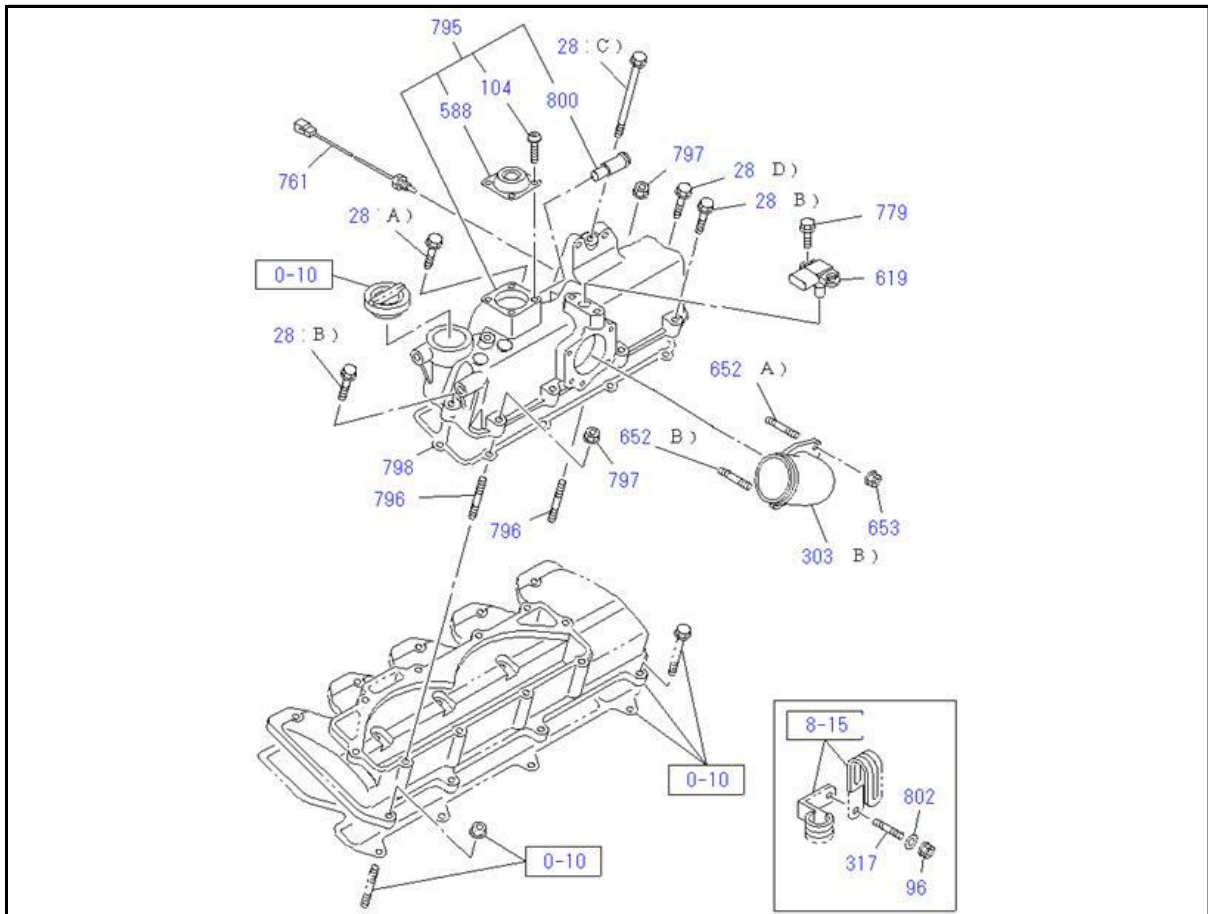
(No.2)



0-20 TIMING GEAR CASE AND FLYWHEEL HOUSING

KEY No.	Part no.	qty	Part description	Engine serial no.
1 (A)	8-98207-821-2	1	CASE; TIMING GEAR	
2 (B)	8-98241-294-0	1	HOUSING; FLYWHEEL	
40	0-91180-208-0	2	NUT; GEAR CASE M8 FLANGE	
57	5-11321-009-0	1	COVER; TIMING CHECK HOLE	
103	8-97351-704-0	1	SEAL; OIL,CR/SHF,FRT	
134 (A)	5-09300-065-0	1	STUD; TIMING GEAR CASE M8X79 L=92	
134 (B)	8-97262-146-1	1	STUD; TIMING GEAR CASE M8X50 L=62	
137 (A)	0-28050-830-0	3	BOLT; FRT PLATE M8X30 FLANGE	
137 (B)	8-97365-376-0	1	BOLT; FRT PLATE M8X22 FLANGE	
149 (A)	8-98226-110-3 <8-98226-110-2>	1	PLATE; FRT,C/BL	
172	8-97231-030-2	1	RETAINER; CR/SHF	
175	5-09625-094-0	1	SEAL; OIL,CR/SHF,RR	
185	0-28050-620-0	8	BOLT; RET TO C/BL M6X20 FLANGE	
205	0-91280-210-0	2	NUT; HSG M10 FLANGE	
211	0-28151-025-0	4	BOLT; HSG M10X25 FLANGE	
226	9-04731-080-0	2	STUD; HSG M10X80 L=95	
257	8-97118-698-1	1	GASKET; TIMING CHECK HOLE	
367 (A)	0-28050-860-0	3	BOLT; GEAR CASE M8X60 FLANGE	
367 (B)	0-28050-880-0	1	BOLT; GEAR CASE M8X80 FLANGE	
367 (C)	0-28050-850-0	8	BOLT; GEAR CASE M8X50 FLANGE	
480	0-28050-612-0	2	BOLT; COVER M6X12 FLANGE	
487	8-97220-740-0	1	COVER; HOLE	
530	9-11229-058-1	2	DOWEL; TIMING CASE OD=11 L=8	

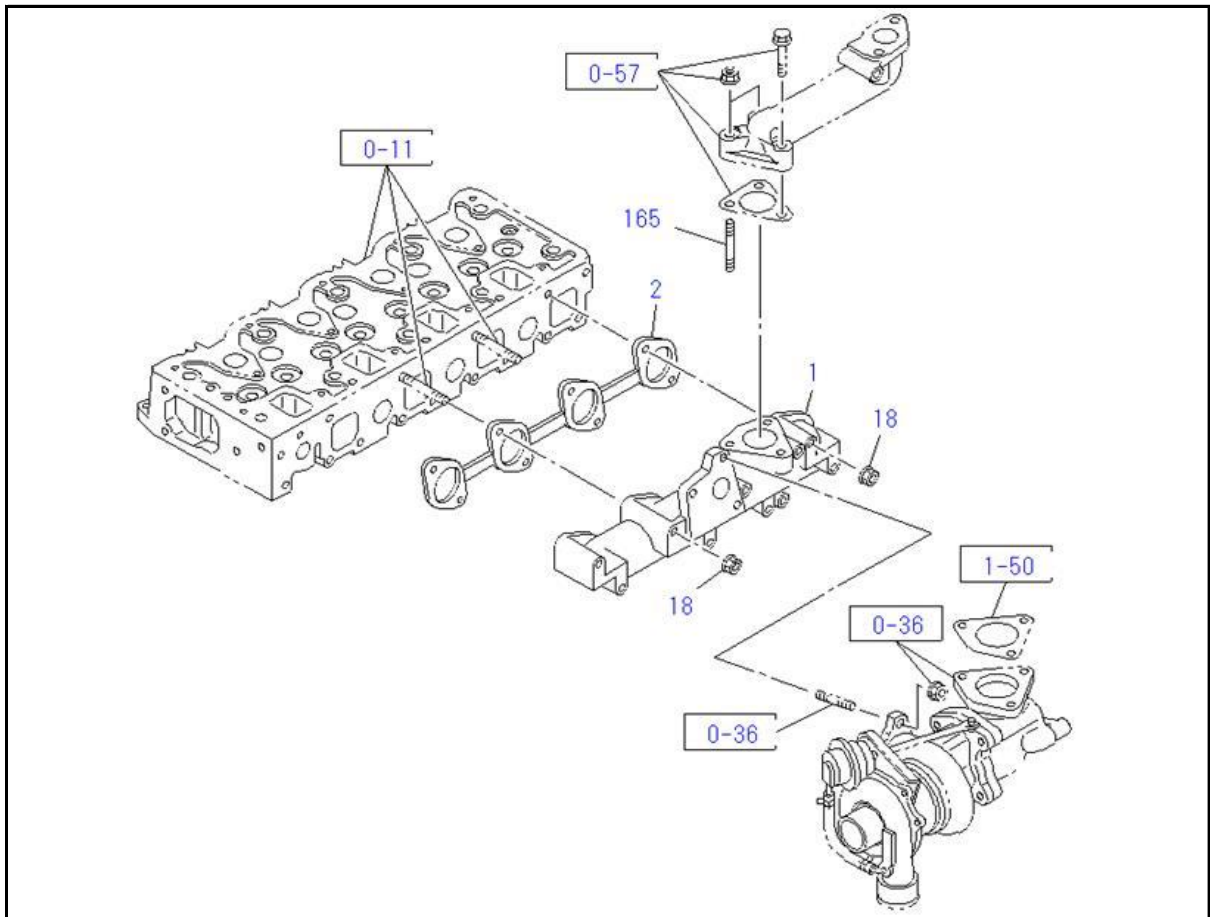
0-25 INLET MANIFOLD



KEY No.	Part no.	qty	Part description	Engine serial no.
28 (A)	0-28050-640-0	1	BOLT; CHAMBER M6X40 FLANGE	
28 (B)	0-28050-630-0	5	BOLT; CHAMBER M6X30 FLANGE	
28 (C)	8-98163-982-0	1	BOLT; CHAMBER M6X110 FLANGE	
28 (D)	0-28050-680-0	1	BOLT; CHAMBER M6X80 FLANGE	
96	0-91180-208-0	1	NUT; ENG HARNESS CLIP	
104	0-36220-410-0	4	SCREW M4X10 W/LK WASHER	
303 (B)	8-97314-917-0	1	PIPE; AIR	
317	5-09302-003-0	1	STUD; HARNESS CLIP M8X22 L=30	
588	8-94329-549-0	1	VALVE; VENTILATION	
619	8-98121-697-0 <8-98121-697-1>	1	SENSOR; MAP	
652 (A)	0-41010-616-0	1	STUD; DUCT,AIR INLET M6X16 L=25	
652 (B)	8-97094-641-1	1	STUD; DUCT,AIR INLET M6X45 L=53	
653	8-97329-622-0	2	NUT; DUCT,AIR INLET M6 W/LK WASHER	
761	8-97381-182-0	1	SENSOR; MANIF	
779	0-28050-612-0	2	BOLT; SENSOR M6X12 FLANGE	
795	8-98226-514-0	1	CHAMBER; INT	
796	0-41010-630-0	2	STUD; CHAMBER M6X30 L=38	

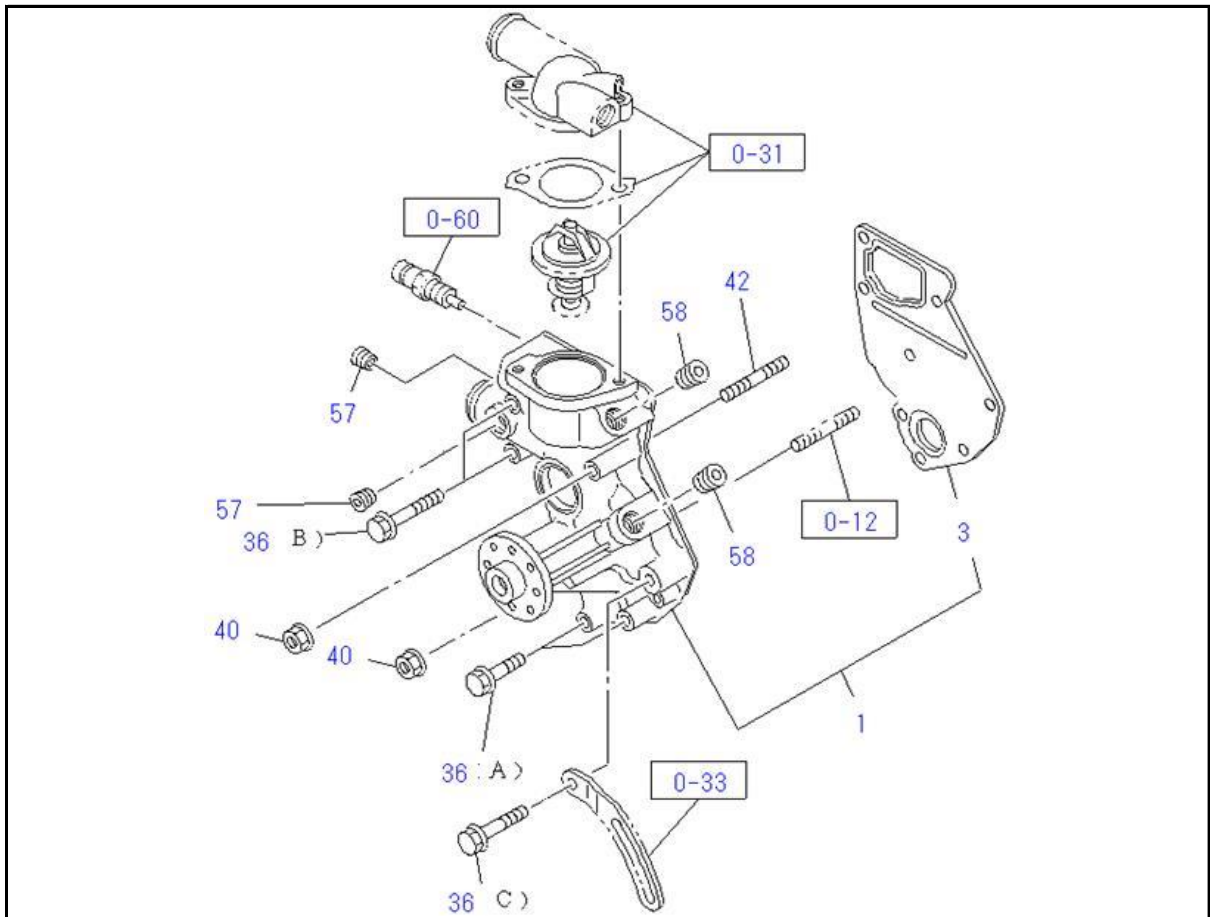
KEY No.	Part no.	qty	Part description	Engine serial no.
797	0-91180-106-0	2	NUT; CHAMBER M6 FLANGE	
798	8-98030-598-0	1	GASKET; CHAMBER	
800	8-98045-738-0	1	VALVE; PCV	
802	1-14319-034-0 <0-91610-608-0>	1	WASHER	

0-27 EXHAUST MANIFOLD



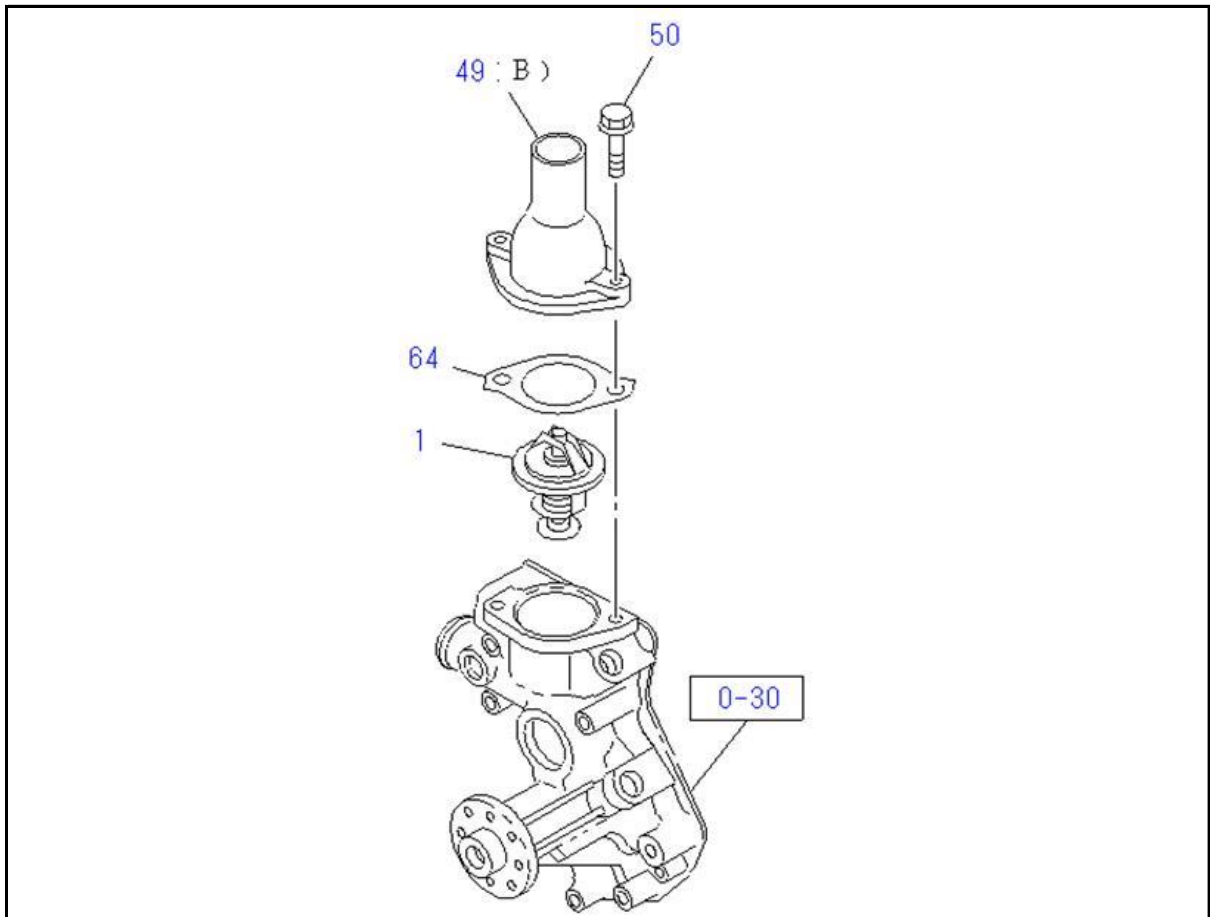
KEY No.	Part no.	qty	Part description	Engine serial no.
1	8-98030-566-1	1	MANIFOLD; EXHAUST	
2	8-98296-307-0	1	GASKET; EXH MANIF TO HD	
18	8-97161-607-0	8	NUT; EXH MANIF M8 FLANGE	
165	9-04130-840-0	2	STUD; EGR PIPE M8X40 L=52	

0-30 WATER PUMP AND CORROSION RESISTOR



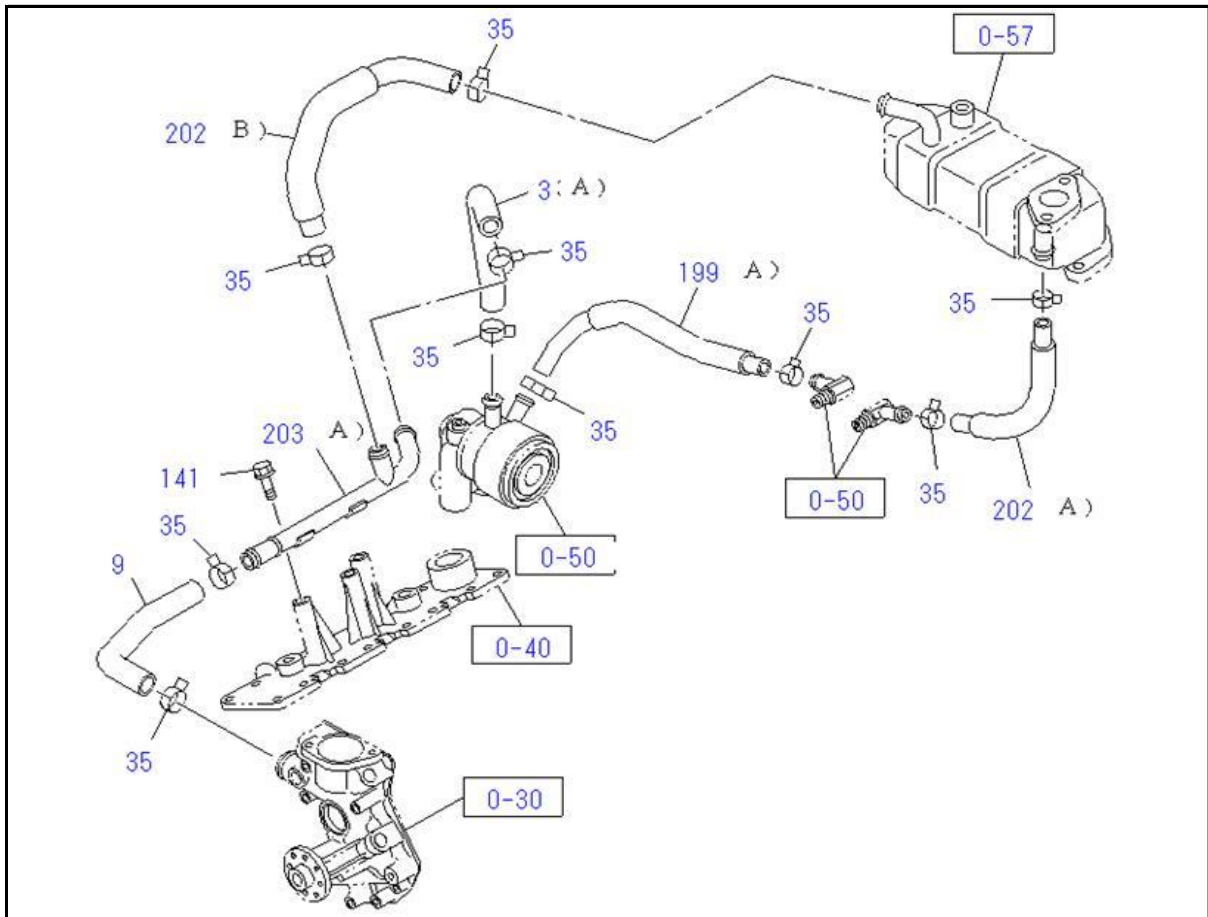
KEY No.	Part no.	qty	Part description	Engine serial no.
1	5-87311-183-2	1	PUMP ASM; WATER W/GASKET	
3	8-97289-543-0	1	GASKET; PUMP TO C/BL	
36 (A)	0-28050-850-0	2	BOLT; WATER PUMP TO C/BL M8X50 FLANGE	
36 (B)	0-28050-890-0	2	BOLT; WATER PUMP TO C/BL M8X90 FLANGE	
36 (C)	8-98081-507-0	1	BOLT; WATER PUMP TO C/BL M8X66 FLANGE	
40	0-91180-208-0	2	NUT; WATER PUMP M8 FLANGE	
42	8-98017-063-0	1	STUD; WATER PUMP M8X71 L=83	
57	5-09605-005-0	2	PLUG; HTR,WATER PUMP PT 3/8	
58	5-09605-005-0	2	PLUG; HTR PT 3/8	

0-31 THERMOSTAT AND HOUSING



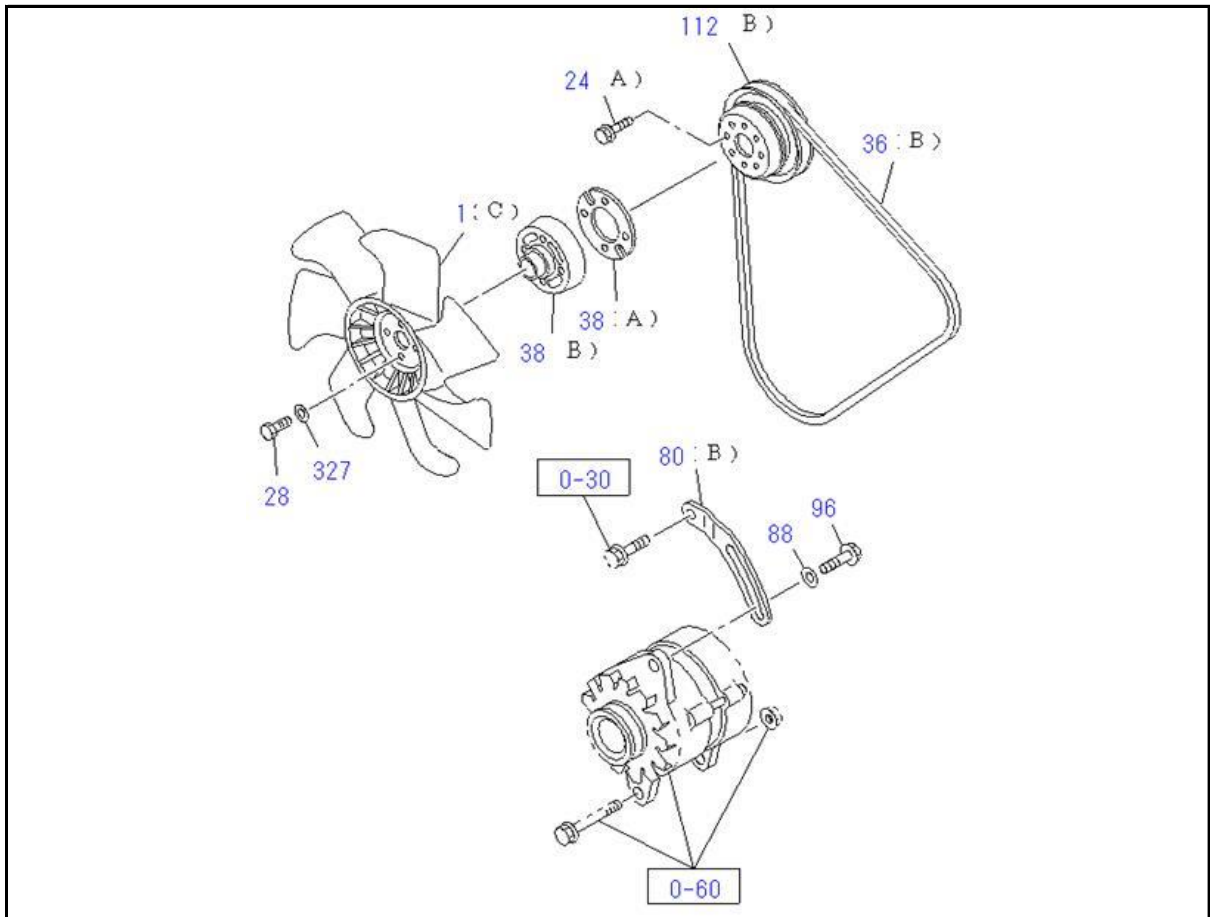
KEY No.	Part no.	qty	Part description	Engine serial no.
1	8-97361-770-0	1	THERMOSTAT 82 CELSIUS	
49 (B)	8-97169-015-1	1	PIPE; WATER OUTLET	
50	0-28650-825-0	2	BOLT; OUTLET PIPE M8X25 FLANGE	
64	8-97264-690-1	1	GASKET; OUTLET PIPE TO HSG	

0-32 WATER PIPING; ENGINE



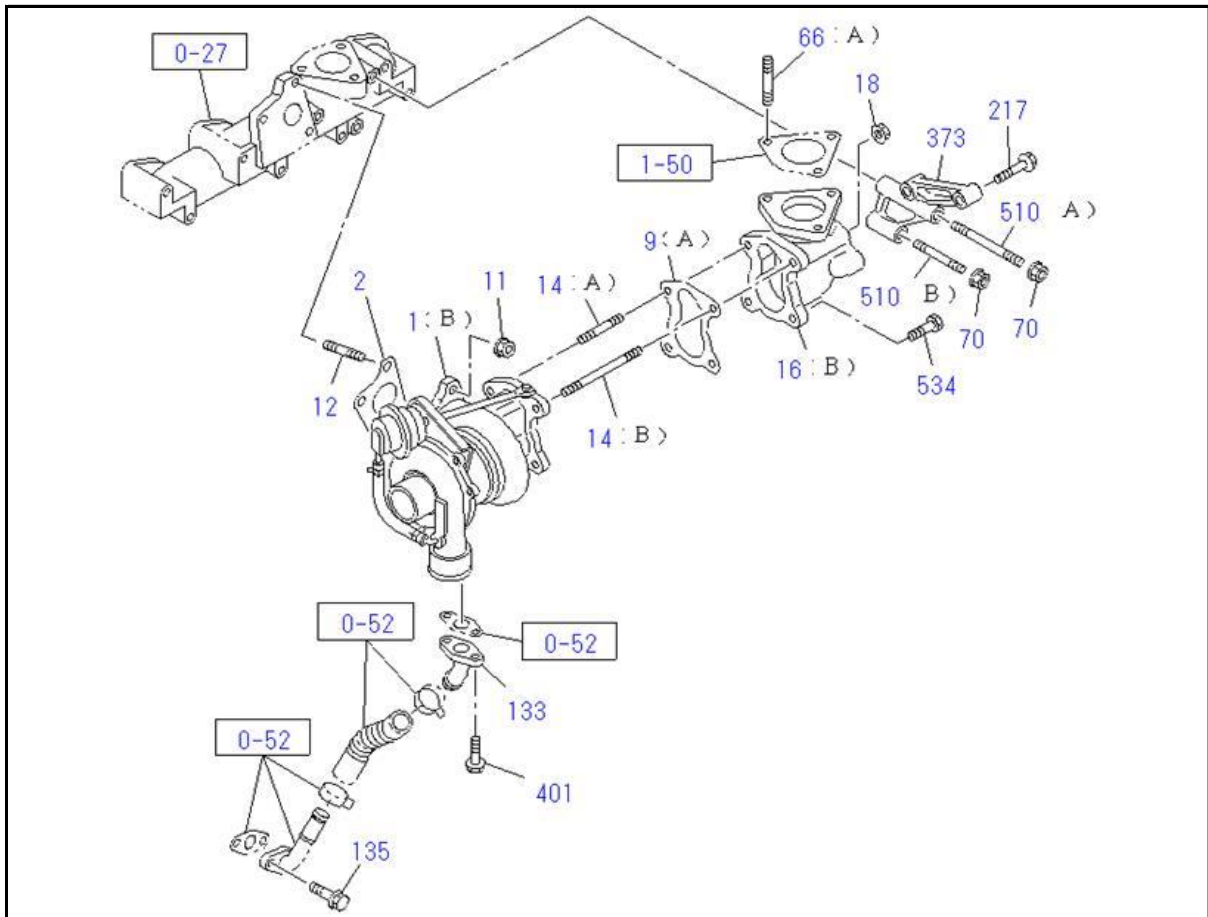
KEY No.	Part no.	qty	Part description	Engine serial no.
3 (A)	8-98210-275-0	1	HOSE; WATER,OIL COOLER	
9	8-98210-113-0	1	HOSE; RUBBER,PIPE TO WATER PUMP	
35	8-94466-382-0	10	CLIP; RUBBER HOSE ID=22.7	
141	0-28050-816-0	2	BOLT; WATER PIPE M8X16 FLANGE	
199 (A)	8-98210-274-1	1	HOSE; RUBBER,OIL COOLER	
202 (A)	8-98210-272-0	1	HOSE; RUBBER,EGR COOLER	
202 (B)	8-98210-273-1	1	HOSE; RUBBER,EGR COOLER	
203 (A)	8-98210-271-0	1	PIPE; WATER RETURN	

0-33 FAN AND FAN BELT



KEY No.	Part no.	qty	Part description	Engine serial no.
1 (C)	8-97255-154-1	1	FAN; COOLING 7 BLADE OD=550	
24 (A)	0-20800-612-0	2	BOLT; FAN M6X12	
28	0-28050-640-0	4	BOLT; COOLING FAN M6X40 FLANGE	
36 (B)	8-98095-335-0	1	BELT; COOLING FAN 1-PIECE L=960	
38 (A)	8-97063-400-3	1	SPACER; FAN	
38 (B)	9-89136-423-0	1	SPACER; FAN H=35.5	
80 (B)	8-98124-009-0	1	PLATE; ADJ	
88	0-91614-708-0	1	WASHER; PL,ADJ PLATE ID=8.4 OD=22	
96	0-28050-830-0	1	BOLT; ADJ PLATE M8X30 FLANGE	
112 (B)	8-94146-638-2	1	PULLEY; FAN CENTER OD=130 1 GROOVE	
327	0-91610-706-0	4	WASHER; PL,FAN ID=6.4 OD=18	

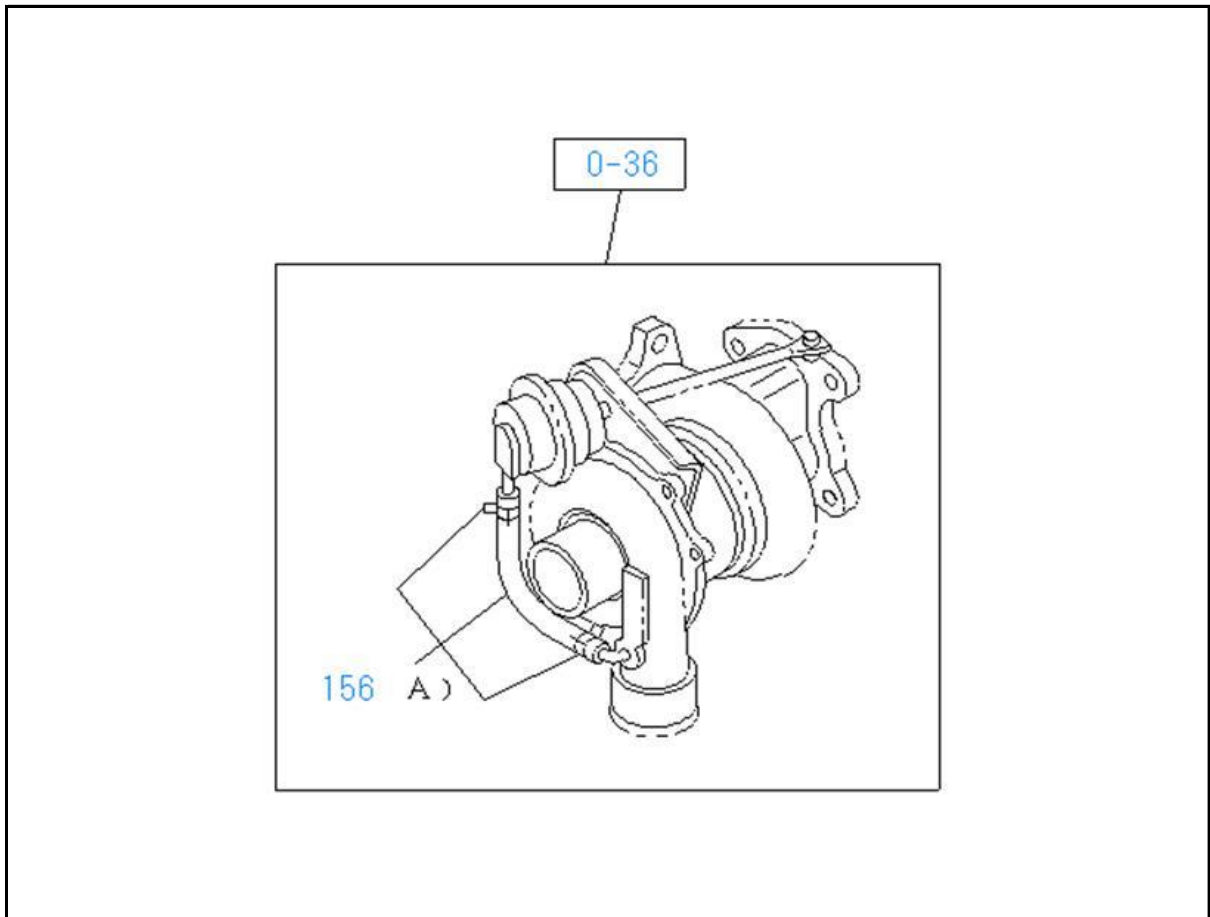
0-36 TURBOCHARGER SYSTEM



KEY No.	Part no.	qty	Part description	Engine serial no.
1 (B)	8-98235-499-1 <8-98235-499-0>	1	TURBOCHARGER ASM	
2	8-98049-026-0	1	GASKET; TURBOCHARGER TO EXH	
9 (A)	8-94148-885-0	1	GASKET; TURBOCHARGER TO EXH	
11	8-97161-607-0	3	NUT; TURBOCHARGER M8 FLANGE	
12	8-94257-319-0	3	STUD; TURBOCHARGER M8X22 L=33	
14 (A)	8-97378-064-0	1	STUD; TURBOCHARGER TO EXH PIPE M8X30 L=41	
14 (B)	8-94107-532-1 <8-97378-068-0>	1	STUD; TURBOCHARGER TO EXH PIPE M8X81 L=92	
16 (B)	8-98235-590-0	1	ADAPTER; EXH PIPE	
18	8-97161-607-0	2	NUT; EXH PIPE M8 FLANGE	
66 (A)	8-94257-319-0	3	STUD; EXH PIPE M8X22 L=33	
70	8-97161-607-0	2	NUT; BRKT M8 FLANGE	
133	8-98180-690-0	1	PIPE; OIL DRAIN, TURBOCHARGER	
135	0-28050-616-0	2	BOLT; OIL PIPE TO C/BL M6X16 FLANGE	
217	8-98053-224-0	2	BOLT; BRKT M8X35 FLANGE	
373	8-98232-435-0	1	BRACKET; ADAPTER TO EXH MANIF	
401	0-28050-616-0	2	BOLT; OIL PIPE, TURBO M6X16 FLANGE	
510 (A)	8-97256-786-1	1	STUD; BRKT M8X90 L=101	

KEY No.	Part no.	qty	Part description	Engine serial no.
510 (B)	8-97378-067-0	1	STUD; BRKT M8X43 L=54	
534	8-98043-528-0	2	BOLT;TURBOCHARGER TO PIPE M8X28 FLANGE	

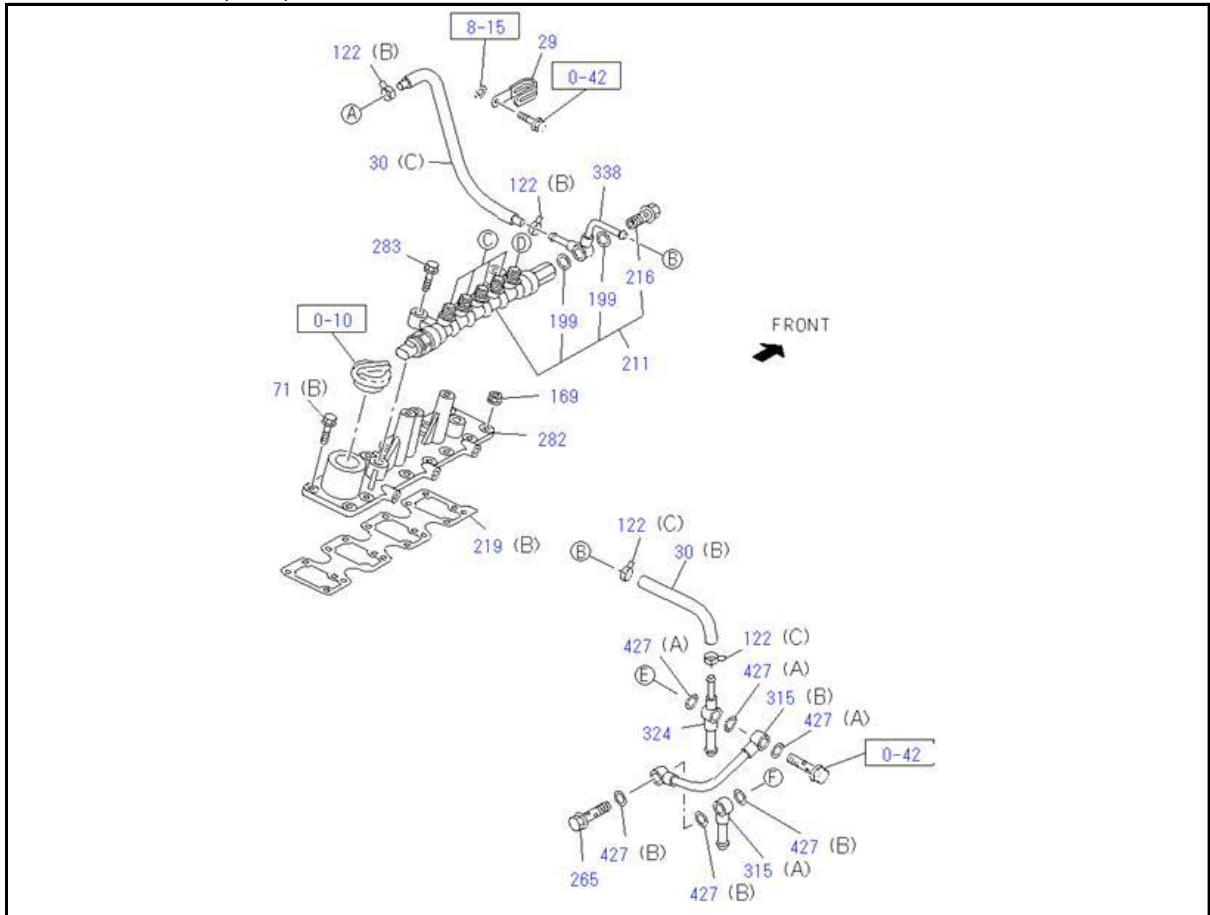
0-37 TURBOCHARGER



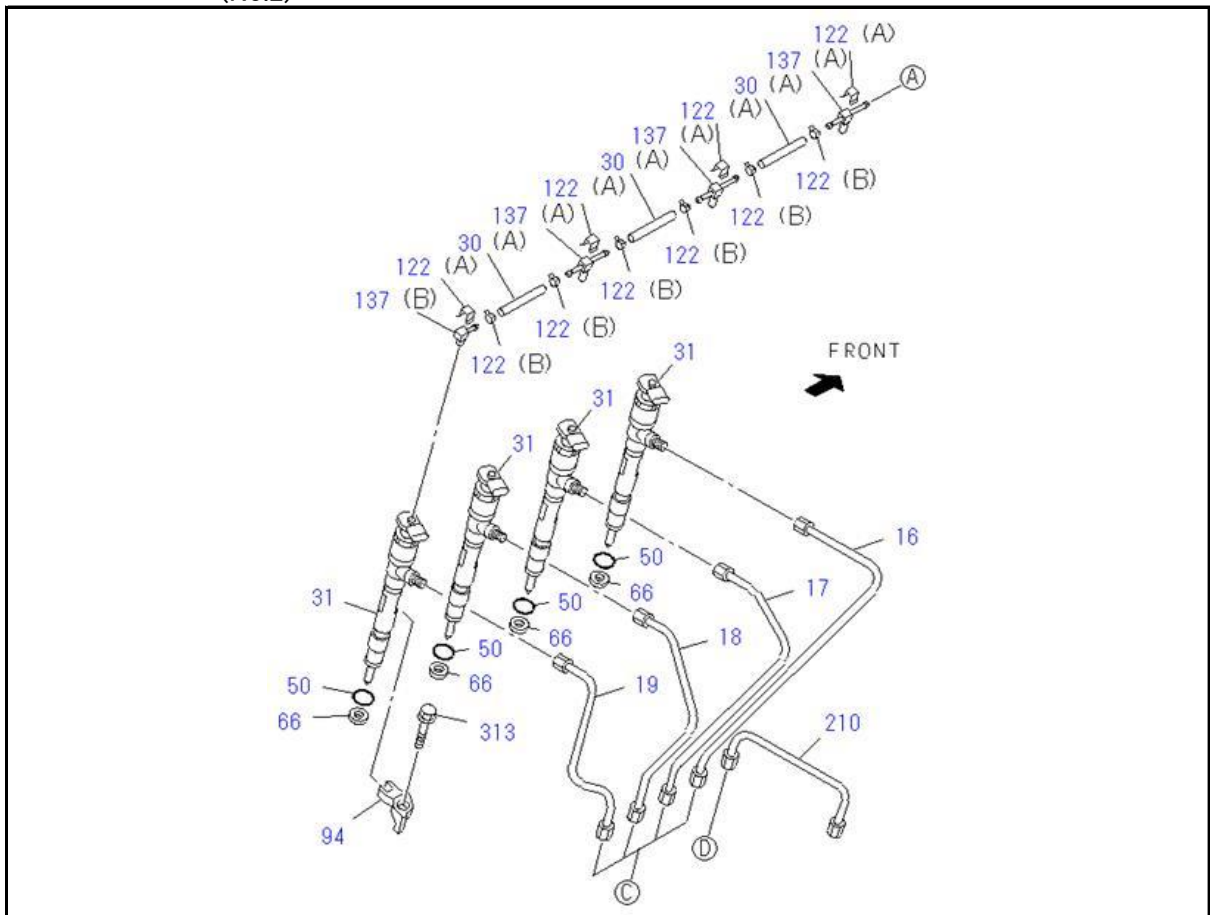
KEY No.	Part no.	qty	Part description	Engine serial no.
156 (A)	8-98225-335-0	1	HOSE SET; TURBOCHARGER	

0-40 FUEL INJECTION SYSTEM

(No.1)

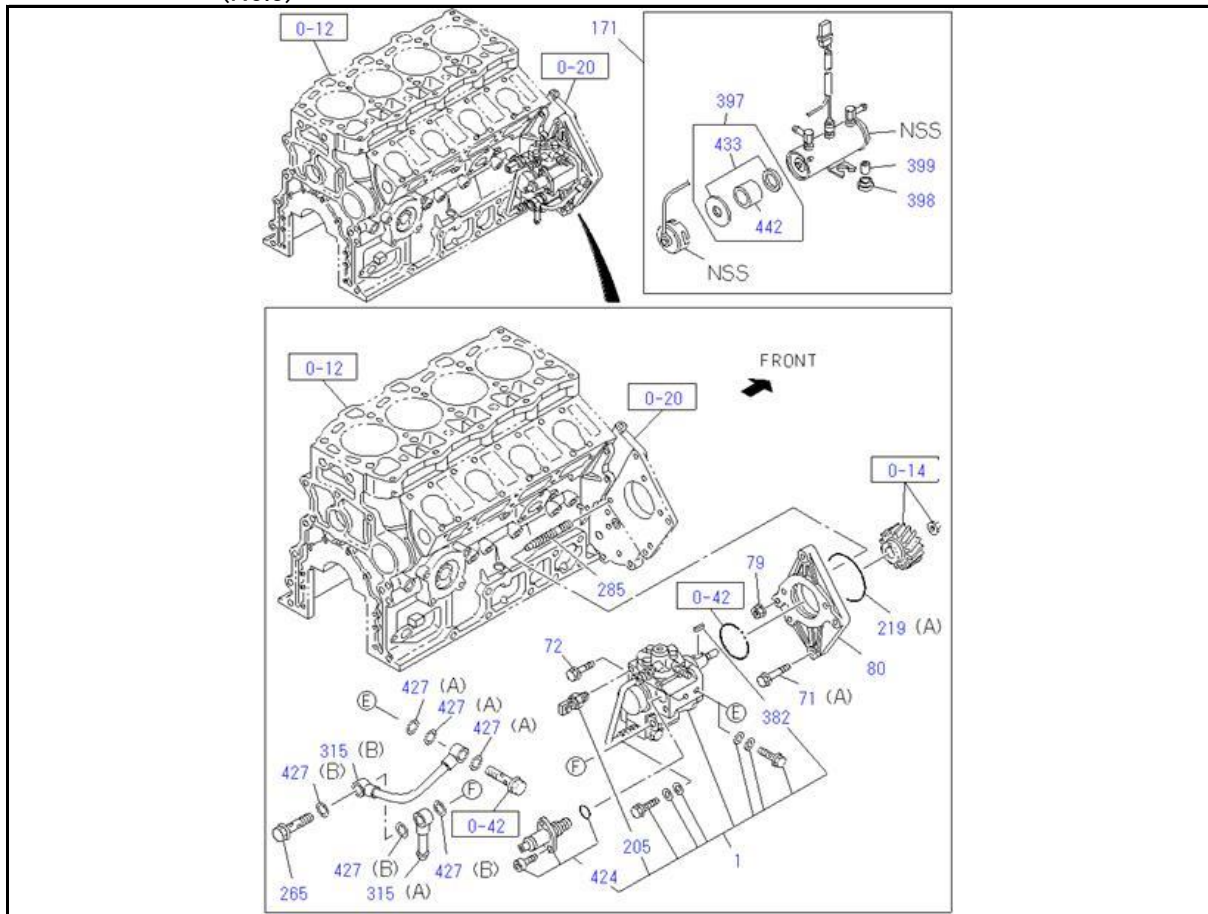


(No.2)



0-40 FUEL INJECTION SYSTEM

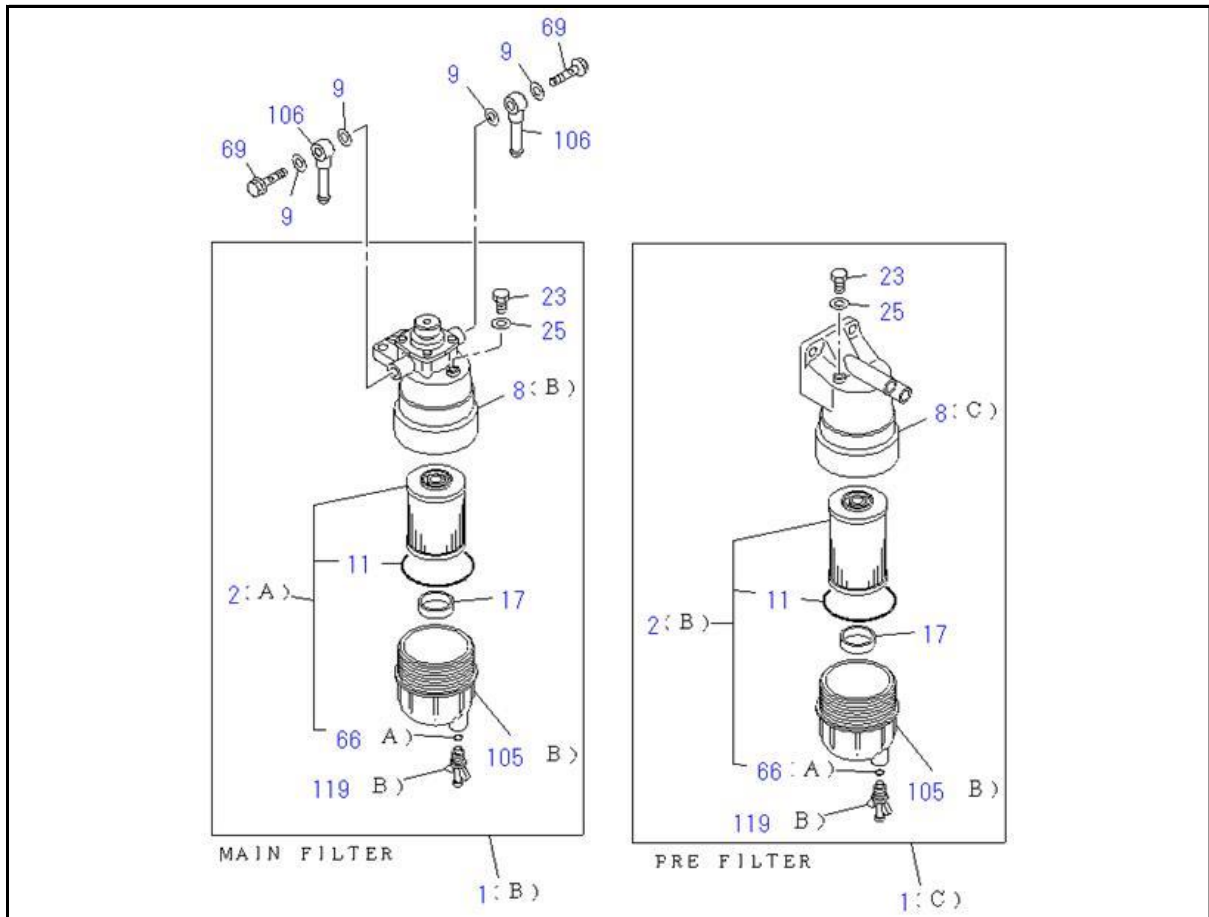
(No.3)



KEY No.	Part no.	qty	Part description	Engine serial no.
1	8-97386-558-3	1	PUMP ASM; INJ	
16	8-98229-593-0	1	PIPE; INJ NO.1	
17	8-98229-594-0	1	PIPE; INJ NO.2	
18	8-98229-595-0	1	PIPE; INJ NO.3	
19	8-98229-596-0	1	PIPE; INJ NO.4	
29	8-97367-985-1	1	CLIP; HOSE ID=18 L=44	
30 (A)	8-98210-286-0	3	HOSE; RUBBER,FUEL LEAK	
30 (B)	8-97377-894-0	1	HOSE; RUBBER,FUEL LEAK L=110	
30 (C)	8-98170-608-1	1	HOSE; RUBBER,FUEL LEAK	
31	8-98163-524-1	4	NOZZLE ASM; INJ	
50	8-97115-712-0	4	GASKET; NOZZLE HOLDER ID=17	
66	8-97171-331-0	4	GASKET; INJ NOZZLE ID=7.2 OD=15	
71 (A)	0-28151-030-0	2	BOLT; BRKT M10X30 FLANGE	
71 (B)	0-28050-820-0	8	BOLT; BRKT M8X20 FLANGE	
72	0-28650-830-0	3	BOLT; BRKT TO INJ PUMP M8X30 FLANGE	
79	0-91180-210-0	2	NUT; BRKT TO INJ PUMP M10 FLANGE	
80	8-98210-285-1	1	BRACKET; PUMP	
94	8-98209-417-0	4	BRACKET; INJ NOZZLE	
122 (A)	8-97315-286-0	4	CLIP; LEAK OFF PIPE	
122 (B)	8-97173-223-0 <8-97019-473-0>	8	CLIP; LEAK OFF PIPE ID=10.5	

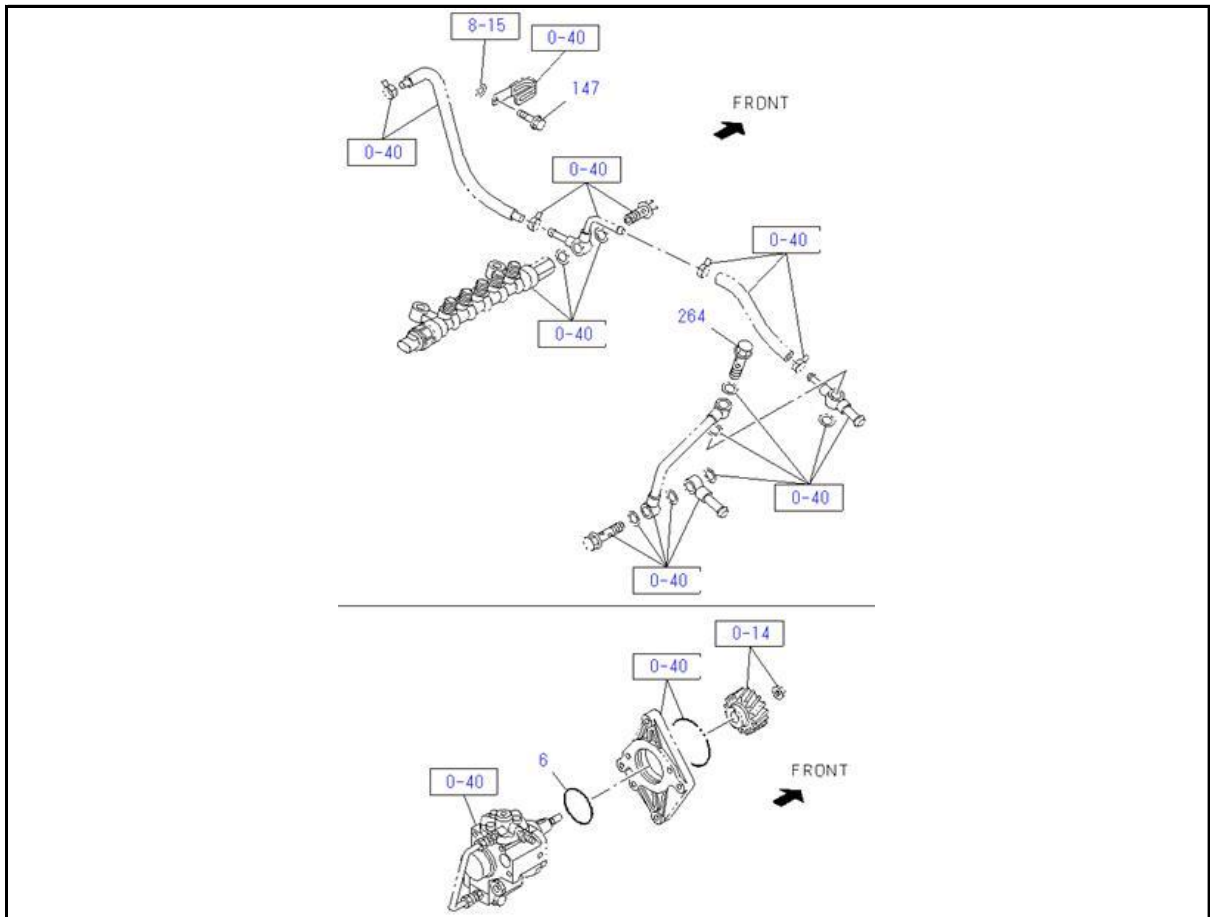
KEY No.	Part no.	qty	Part description	Engine serial no.
122 (C)	8-97375-638-0	2	CLIP; LEAK OFF PIPE ID=11.5	
137 (A)	8-98161-061-0	3	PIPE ASM; LEAK OFF	
137 (B)	8-98161-062-0	1	PIPE ASM; LEAK OFF	
169	0-91180-108-0	7	NUT; BRKT M8 FLANGE	
171	8-98068-275-0	1	PUMP ASM; FUEL FEED 12V	
199	8-97602-218-0	2	GASKET; EYE BOLT	
205	8-98023-581-0	1	SENSOR; FUEL TEMP	
210	8-98209-882-0	1	PIPE; INJ,C/R	
211	8-98168-005-1	1	RALL ASM; COMMON	
216	8-98035-828-0	1	BOLT; EYE	
219 (A)	9-09566-271-0	1	GASKET;	
219 (B)	8-98210-017-0	1	GASKET;	
265	8-98074-955-0	1	VALVE; FEED PUMP	
282	8-98209-392-1	1	BRACKET; COMMON RAIL	
283	0-28151-030-0	2	BOLT; COMMON RAIL M10X30 FLANGE	
285	0-44011-030-0	2	STUD; BRKT M10X30 L=45	
313	8-94433-717-1	4	BOLT; BRKT,INJ NOZZLE	
315 (A)	8-98126-332-0	1	PIPE; FUEL,SUCTION	
315 (B)	8-98008-789-1	1	PIPE; FUEL,SUCTION	
324	8-98210-294-0	1	PIPE; FUEL RETURN	
338	8-98210-295-0	1	PIPE; C/RAIL,LEAK OFF	
382	8-98161-995-0	1	KEY; DRIVE SHAFT	
397	8-98173-165-0	1	REPAIR KIT; FUEL PUMP MESH FILTER	
398	8-97047-266-0	2	GROMMET; FUEL PUMP	
399	8-97047-265-0	2	COLLAR; FUEL PUMP	
424	8-98145-502-1	1	OVERHAUL KIT: SUPPLY PUMP	
427 (A)	1-09630-083-0	3	GASKET; FUEL PIPE ID=10.2 OD=15.2	
427 (B)	8-98251-345-0	3	GASKET; FUEL PIPE ID=14.2 OD=19.2	
433	8-98071-404-0	1	GASKET KIT; FUEL PUMP	
442	8-98071-401-0	1	FILTER; FUEL PUMP MESH FILTER	

0-41 FUEL FILTER AND BRACKET



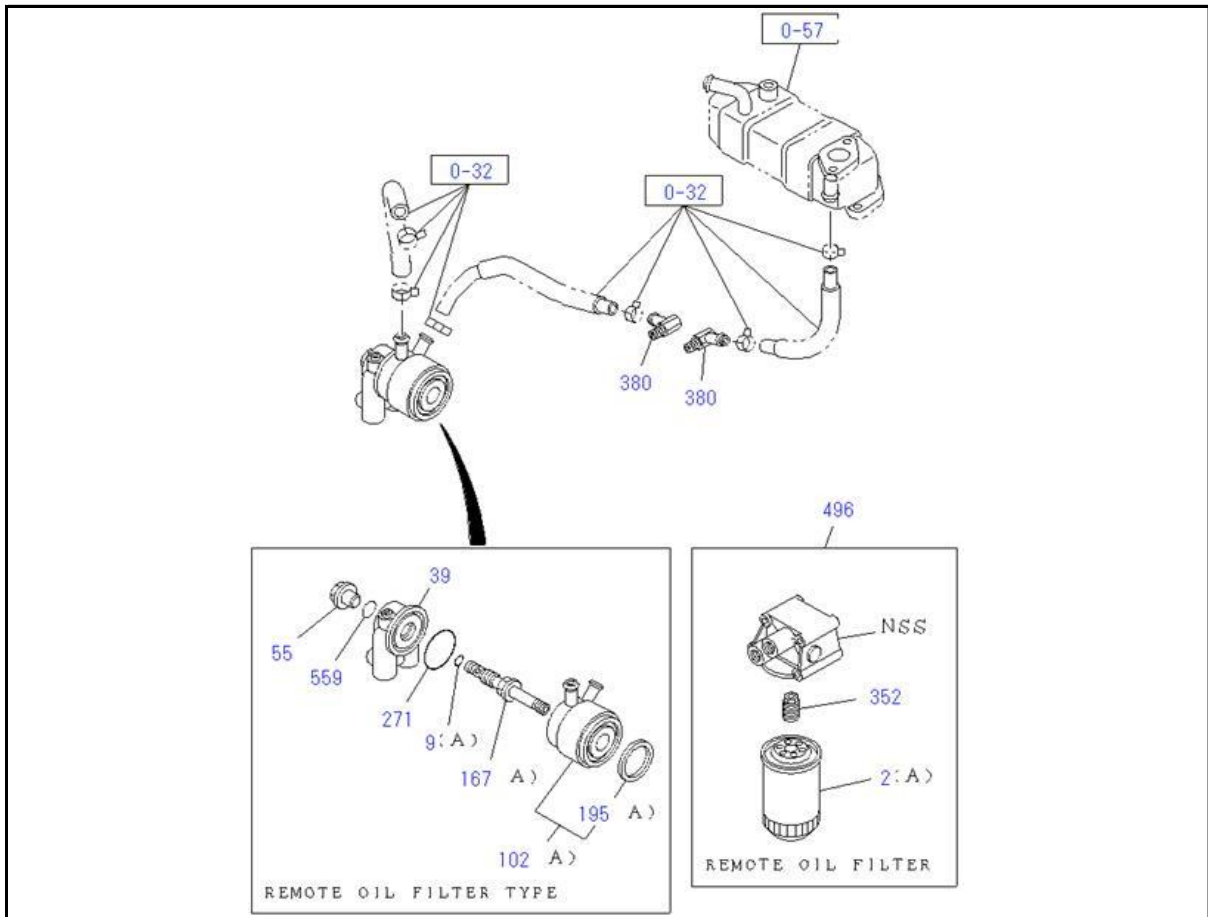
KEY No.	Part no.	qty	Part description	Engine serial no.
1 (B)	8-98236-990-0	1	FILTER ASM; FUEL MAIN DUAL FILTER	
1 (C)	8-98236-991-0	1	FILTER ASM; FUEL PRE SINGLE FILTER	
2 (A)	8-98240-280-0	1	ELEMENT KIT;FUEL FILTER MAIN DUAL FILTER	
2 (B)	8-98240-279-0	1	ELEMENT KIT;FUEL FILTER PRE SINGLE FILTER	
8 (B)	8-98242-619-0	1	COVER; FUEL FILTER MAIN FILTER	
8 (C)	8-98242-609-0	1	COVER; FUEL FILTER PRE FILTER	
9	8-98251-345-0	8	GASKET; EYE JOINT ID=14.2 OD=19.2	
11	8-98242-617-0	2	GASKET; CASE TO BODY,FUEL FILTER	
17	8-98242-612-0	2	FLOAT; FUEL FILTER	
23	8-98242-614-0	2	PLUG; COVER	
25	8-98242-615-0	2	GASKET; AIR DRAIN PLUG	
66 (A)	8-98008-843-0	2	GASKET; PLUG,FUEL FILTER	
69	1-09675-193-0	4	BOLT; EYE,FUEL FILTER	
105 (B)	8-98242-611-0	2	CASE; FUEL FILTER	
106	8-98126-332-0	4	PIPE; FUEL	
119 (B)	8-98242-616-0	2	PLUG; DRAIN,FUEL FILTER	

0-42 FUEL PUMP AND PIPE



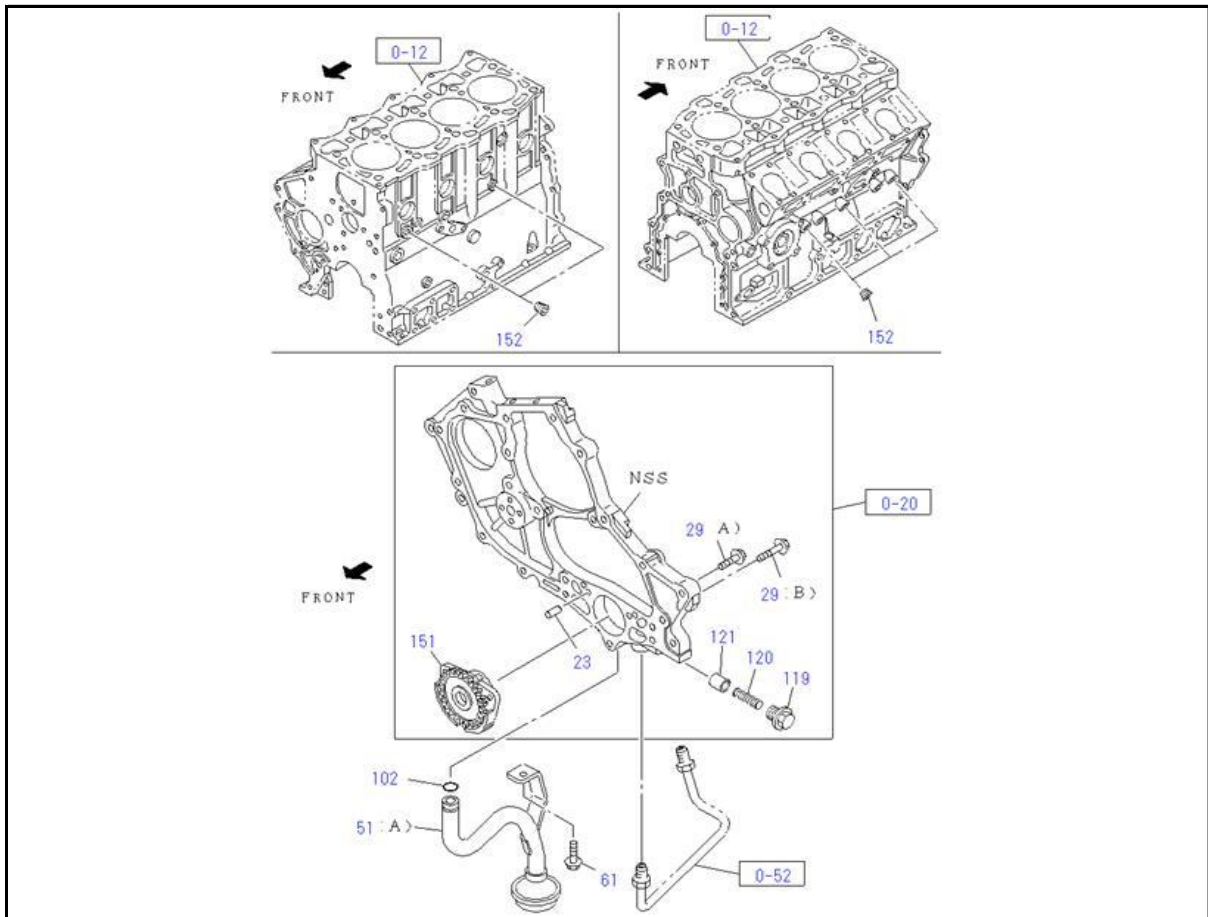
KEY No.	Part no.	qty	Part description	Engine serial no.
6	1-09623-541-0	1	GASKET; FUEL PUMP ID=49.7	
147	0-28050-812-0	1	BOLT; CLIP,FUEL PIPE M8X12 FLANGE	
264	8-98011-269-0	1	BOLT; EYE	

0-50 OIL COOLER AND OIL FILTER



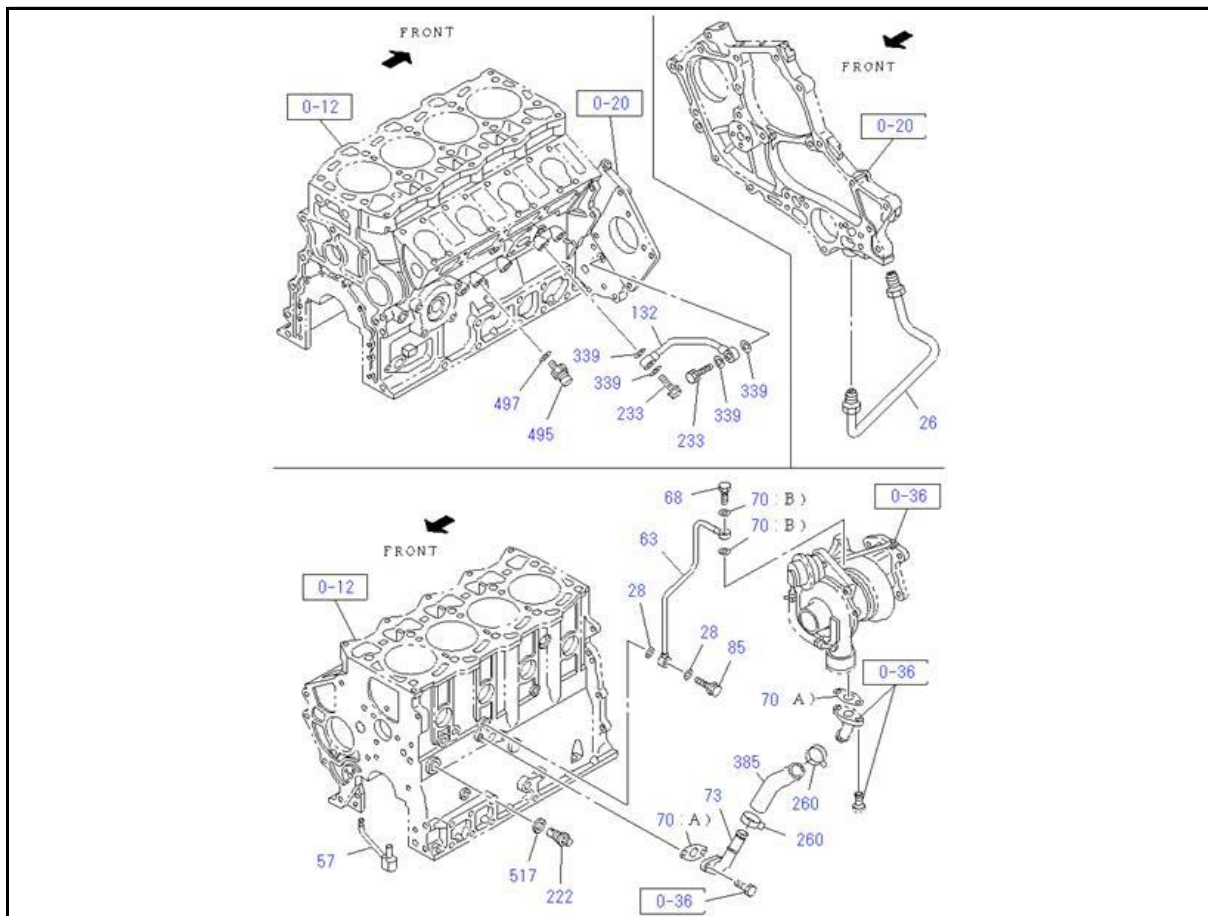
KEY No.	Part no.	qty	Part description	Engine serial no.
2 (A)	8-98075-676-1	1	ELEMENT; OIL FILTER	
9 (A)	1-09623-588-0	1	GASKET; CENTER BOLT	
39	8-98080-546-0	1	COVER; OIL COOLER	
55	8-98048-968-0	1	PLUG; OIL COOLER	
102 (A)	8-97102-320-0	1	COOLER ASM; OIL	
167 (A)	8-98048-967-1	1	BOLT; CENTER	
195 (A)	8-94370-828-0	1	GASKET; OIL COOLER	
271	1-09623-565-0	1	GASKET; COVER TO COOLER ID=59.6	
352	8-98075-720-0	1	ADAPTER; OIL FILTER	
380	8-98063-668-1	2	CONNECTOR; WATER	
496	8-98075-671-0	1	FILTER ASM; OIL	
559	8-94396-679-0	1	GASKET; PLUG,OIL PORT COVER ID=31.2	

0-51 OIL PUMP AND OIL STRAINER



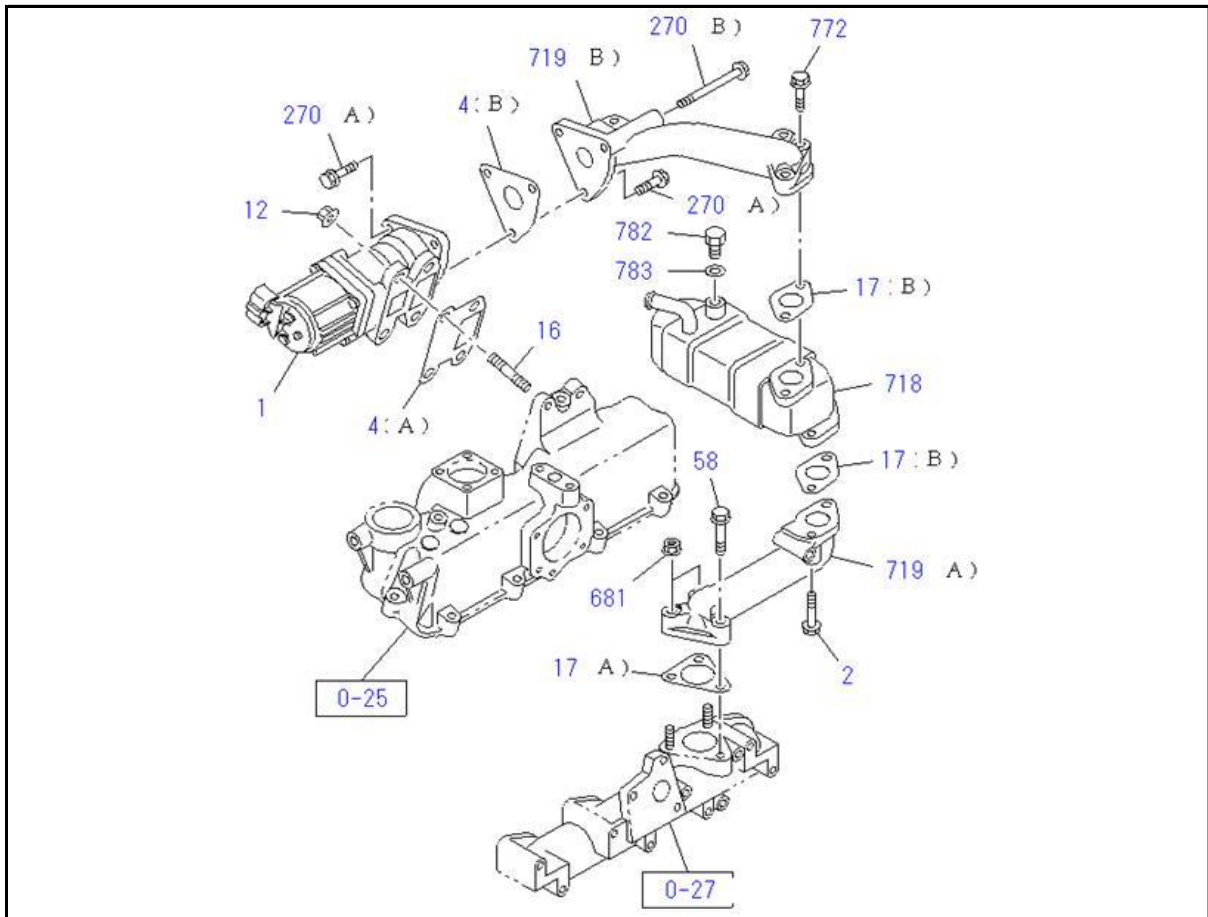
KEY No.	Part no.	qty	Part description	Engine serial no.
23	9-08150-616-0	2	PIN; BODY,OIL PUMP OD=6 L=16	
29 (A)	0-28050-630-0	2	BOLT; OIL PUMP M6X30 FLANGE	
29 (B)	0-28050-650-0	1	BOLT; OIL PUMP M6X50 FLANGE	
51 (A)	8-98097-956-0	1	STRAINER & PIPE ASM; OIL	
61	0-28050-816-0	1	BOLT; OIL STRAINER M8X16 FLANGE	
102	1-09623-588-0	1	GASKET; STRAINER	
119	8-98097-771-1	1	PLUG; RELIEF VLV	
120	8-97175-639-0	1	SPRING; RELIEF VLV	
121	8-94235-567-1	1	VALVE; RELIEF,OIL PUMP	
151	8-97083-576-1	1	PUMP SUB ASM; OIL	
152	8-97369-552-1	5	PLUG PT 1/8	

0-52 OIL AND VACUUM PIPING; ENGINE



KEY No.	Part no.	qty	Part description	Engine serial no.
26	8-97045-400-0	1	PIPE; OIL,PUMP TO C/BL	
28	9-09571-410-0	2	GASKET; OIL PIPE ID=10.2 OD=16.0	
57	8-98210-268-0	4	PIPE; OIL,OIL JET	
63	8-98095-978-0	1	PIPE; OIL,TURBOCHARGER FEED	
68	8-94332-831-1	1	BOLT; EYE,OIL PIPE,TURBOCHARGER SIDE M10X23 FLANGE	
70 (A)	8-94362-672-1	2	GASKET; OIL PIPE,TURBOCHARGER	
70 (B)	9-09571-410-0	2	GASKET; OIL PIPE,TURBOCHARGER ID=10.2 OD=16.0	
73	8-98163-461-0	1	PIPE ASM; OIL,TURBOCHARGER	
85	9-09906-173-1	1	BOLT; EYE,OIL PIPE FIX M10X25	
132	8-98209-880-0	1	PIPE ASM; OIL,INJ PUMP FEED	
222	8-97175-703-1	1	VALVE ASM; CHECK	
233	5-09675-018-1	2	BOLT; EYE M8X20 EYE BOLT	
260	8-94125-862-1	2	CLIP; HOSE,TURBOCHARGER RETURN ID=20.8	
339	9-09571-408-0	4	GASKET; OIL PIPE ID=8.2 OD=14	
385	8-98180-683-0	1	HOSE; RUBBER,OIL	
495	8-98027-456-0	1	SENSOR; OIL PRESS	
497	8-98251-345-0	1	GASKET; SENSOR ID=14.2 OD=19.2	
517	9-09571-416-0	1	GASKET; CHECK VLV ID=16.2 OD=24	

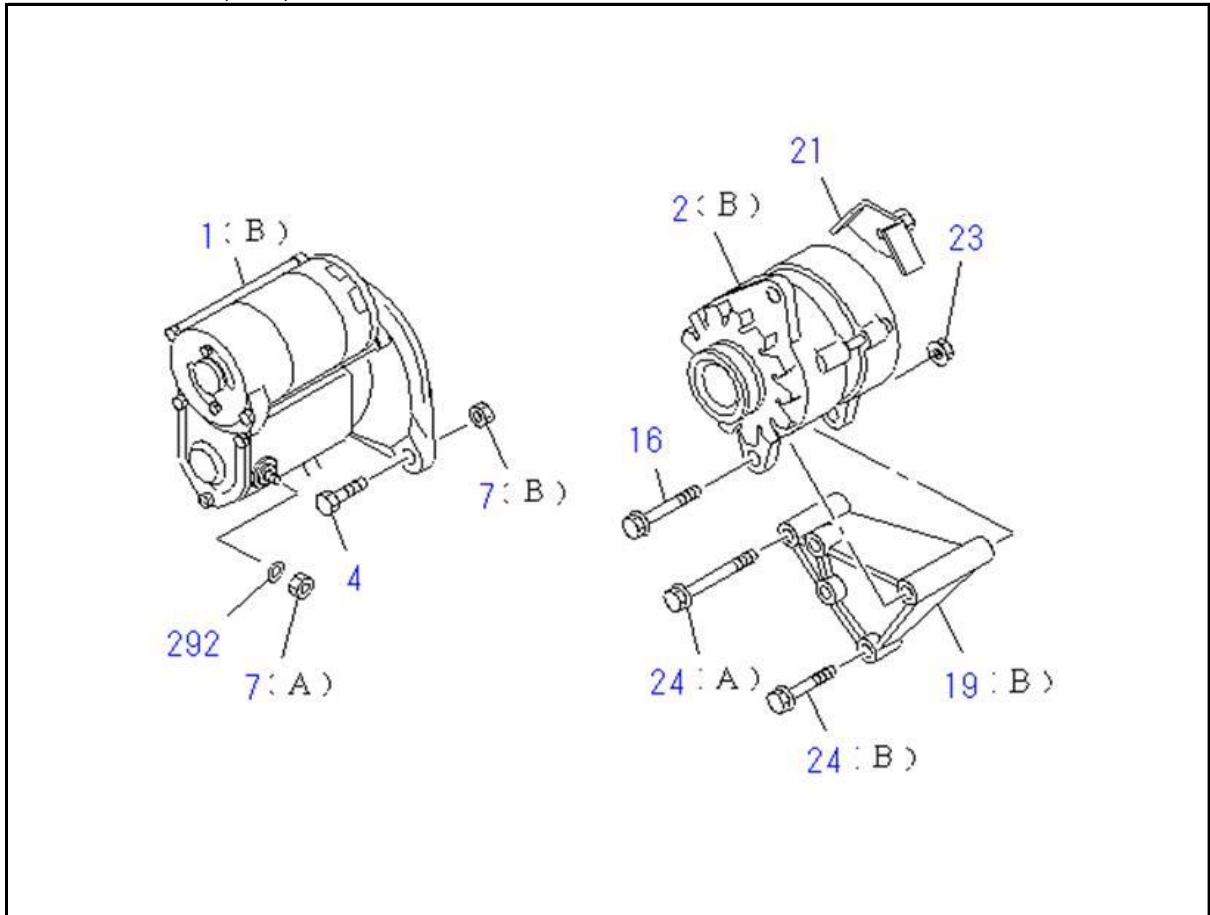
0-57 EMISSION PIPING



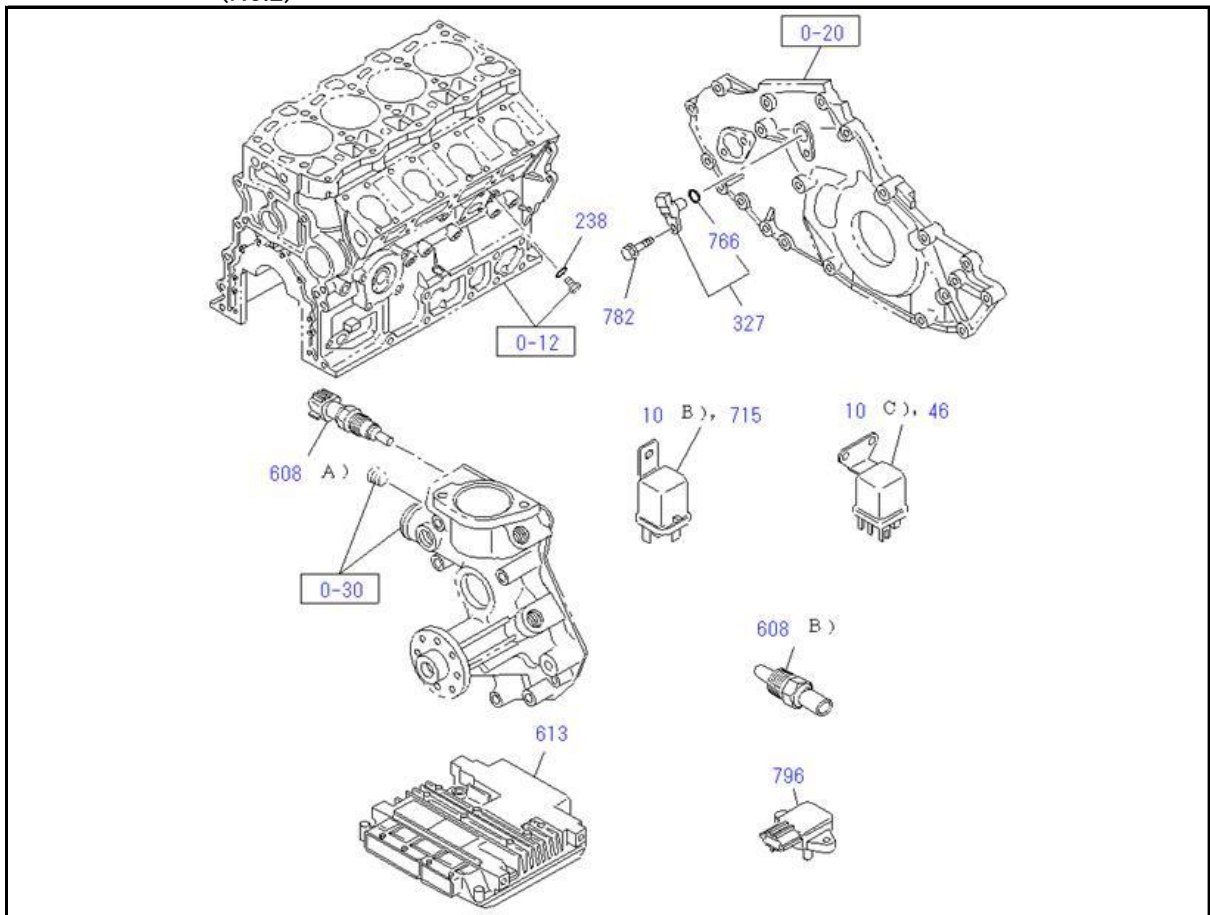
KEY No.	Part no.	qty	Part description	Engine serial no.
1	8-98239-480-1	1	VALVE; EGR 12V	
2	8-98053-224-0	2	BOLT; EGR VLV M8X35 FLANGE	
4 (A)	8-98296-306-0	1	GASKET; EGR VLV	
4 (B)	8-98210-016-0	1	GASKET; EGR VLV	
12	0-91180-108-0	4	NUT; EGR VLV M8 FLANGE	
16	0-41010-822-0	4	STUD; EGR VLV M8X22 L=34	
17 (A)	8-97367-918-0	1	GASKET; EGR PIPE	
17 (B)	8-98210-015-0	2	GASKET; EGR PIPE	
58	8-98065-481-0	1	BOLT; PIPE M8X43 FLANGE	
270 (A)	0-28050-825-0	2	BOLT; M8X25 FLANGE	
270 (B)	0-28050-880-0	1	BOLT; M8X80 FLANGE	
681	8-97161-607-0	2	NUT; EGR PIPE M8 FLANGE	
718	8-98163-484-0	1	COOLER; EGR	
719 (A)	8-98209-876-0	1	PIPE; EGR	
719 (B)	8-98209-885-0 <8-98209-885-1>	1	PIPE; EGR	
772	8-98053-224-0	2	BOLT; EGR PIPE M8X35 FLANGE	
782	8-98072-712-0	1	PLUG; EGR COOLER M10X9	
783	9-09571-410-0	1	GASKET; PLUG ID=10.2 OD=16.0	

0-60 ENGINE ELECTRICAL CONTROL PARTS

(No.1)



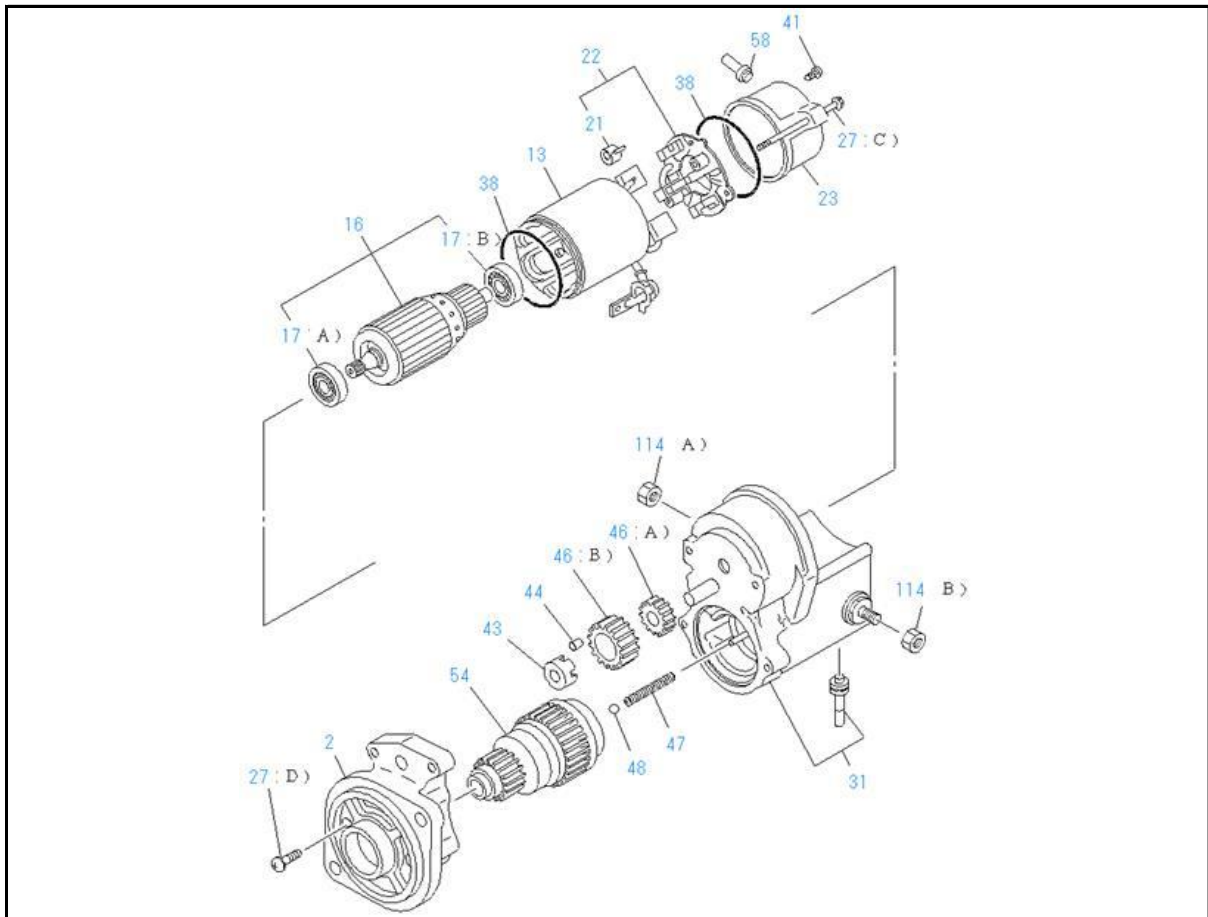
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0-60 ENGINE ELECTRICAL CONTROL PARTS

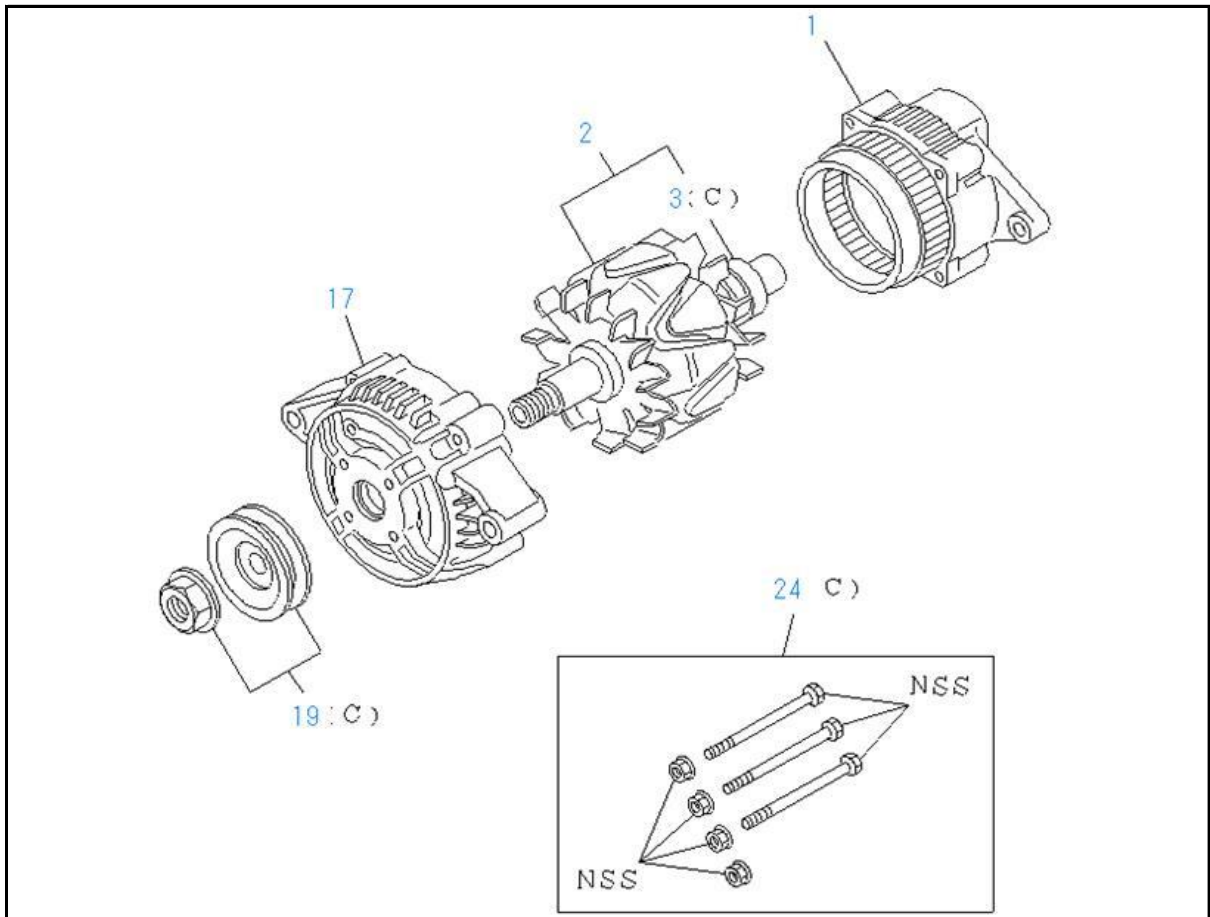
KEY No.	Part no.	qty	Part description	Engine serial no.
1 (B)	8-97112-865-2	1	STARTER ASM 12V-2.0KW DENSO	
2 (B)	8-97228-318-1	1	GENERATOR ASM 12V-50A HITACHI	
4	0-28151-230-0	2	BOLT; STARTER M12X30 FLANGE	
7 (A)	0-91111-508-0	1	NUT; STARTER M8	
7 (B)	0-91180-212-0	2	NUT; STARTER M12	
10 (B)	5-82550-029-0	1	RELAY; STARTER 12V LABEL YELLOW	
10 (C)	8-94248-161-0	1	RELAY; STARTER 12V LABEL GREEN	
16	0-28055-812-0	1	BOLT; GEN M8X120 FLANGE	
19 (B)	8-98048-890-0	1	BRACKET; GEN	
21	8-97378-857-0	1	BRACKET; GEN	
23	0-91180-208-0	1	NUT; GEN M8 FLANGE	
24 (A)	0-28050-870-0	1	BOLT; GEN BRKT M8X70 FLANGE	
24 (B)	0-28051-045-0	1	BOLT; GEN BRKT M10X45 FLANGE	
46	8-97011-949-0	1	RELAY; GLOW PLUG 12V LABEL BLUE	
238	1-09630-141-0	1	GASKET; PICKUP ID=14.2 OD=25	
292	0-91510-808-0	1	WASHER; LK,STARTER ID=8.2	
327	8-98019-024-0	1	SENSOR; CAMSHAFT POSITION	
608 (A)	8-98156-648-0	1	SENSOR; TEMP	
608 (B)	8-12146-830-0	1	SENSOR; TEMP	
613	8-98246-053-0	1	CONTROL UNIT; ENG	
715	5-82550-029-0	1	RELAY; FUEL PUMP 12V LABEL YELLOW	
766	8-97369-404-0	1	GASKET; SENSOR ID=14.2 OD=18.8	
782	0-28050-612-0	1	BOLT; SENSOR M6X12 FLANGE	
796	8-97217-778-0	1	SENSOR; MAP	

0-65 STARTER



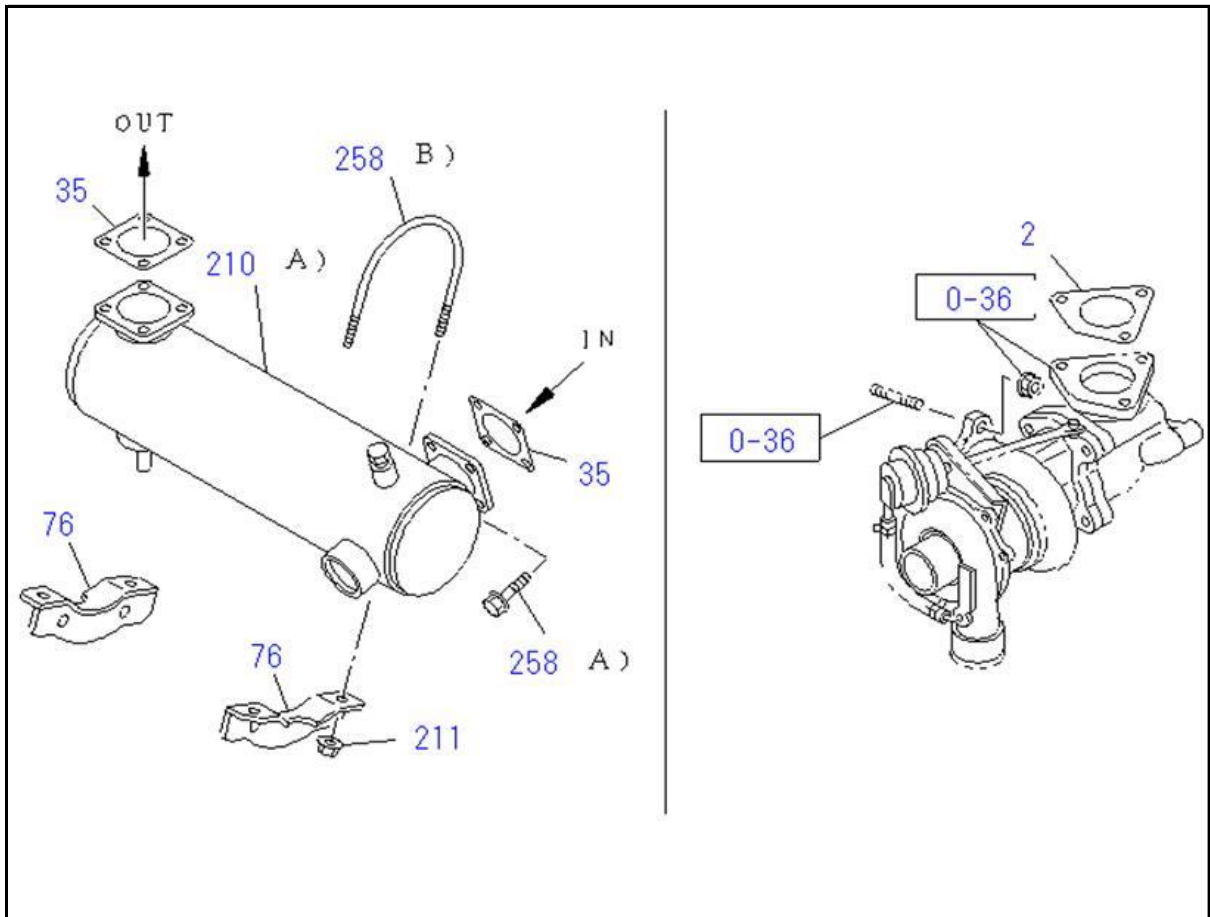
KEY No.	Part no.	qty	Part description	Engine serial no.
2	8-97112-871-0	1	CASE; PINION,STARTER	
13	8-97135-497-0	1	YOKE; STARTER	
16	8-97112-869-0	1	ARMATURE; STARTER	
17 (A)	5-09800-079-0 <8-94377-240-0>	1	BEARING; ARMATURE,STARTER	
17 (B)	8-97112-954-0	1	BEARING; ARMATURE,STARTER	
21	8-97112-880-0	4	SPRING; BRUSH HOLDER STARTER	
22	8-97112-873-0	1	HOLDER; BRUSH STARTER	
23	8-97112-875-0	1	COVER; RR COVER STARTER	
27 (C)	8-97112-957-0	2	BOLT; THROUGH,STARTER	
27 (D)	8-97112-881-0	2	BOLT; THROUGH,STARTER	
31	8-97112-872-0	1	SWITCH; ENGAGE STARTER	
38	8-94170-214-0	2	GASKET; RR COVER,STARTER	
41	8-97142-903-0	2	SCREW; RR COVER,STARTER	
43	8-94377-246-0	1	RETAINER; PINION STARTER	
44	5-81129-099-0	5	ROLLER; PINION STARTER	
46 (A)	8-97078-649-0	1	GEAR; CLU STARTER	
46 (B)	8-97112-879-0	1	GEAR; CLU STARTER	
47	8-94377-245-0	1	SPRING; PINION STARTER	
48	5-81129-092-0	1	BALL; PINION,STARTER	
54	8-97112-870-0	1	CLUTCH; PINION,STARTER	
58	8-94377-239-1 <8-94377-239-0>	1	PIPE; DRAIN RR COVER STARTER	
114 (A)	5-09400-042-0 <8-94109-763-0>	1	NUT; TERMINAL	
114 (B)	8-94377-238-0	1	NUT; TERMINAL	

0-66 GENERATOR



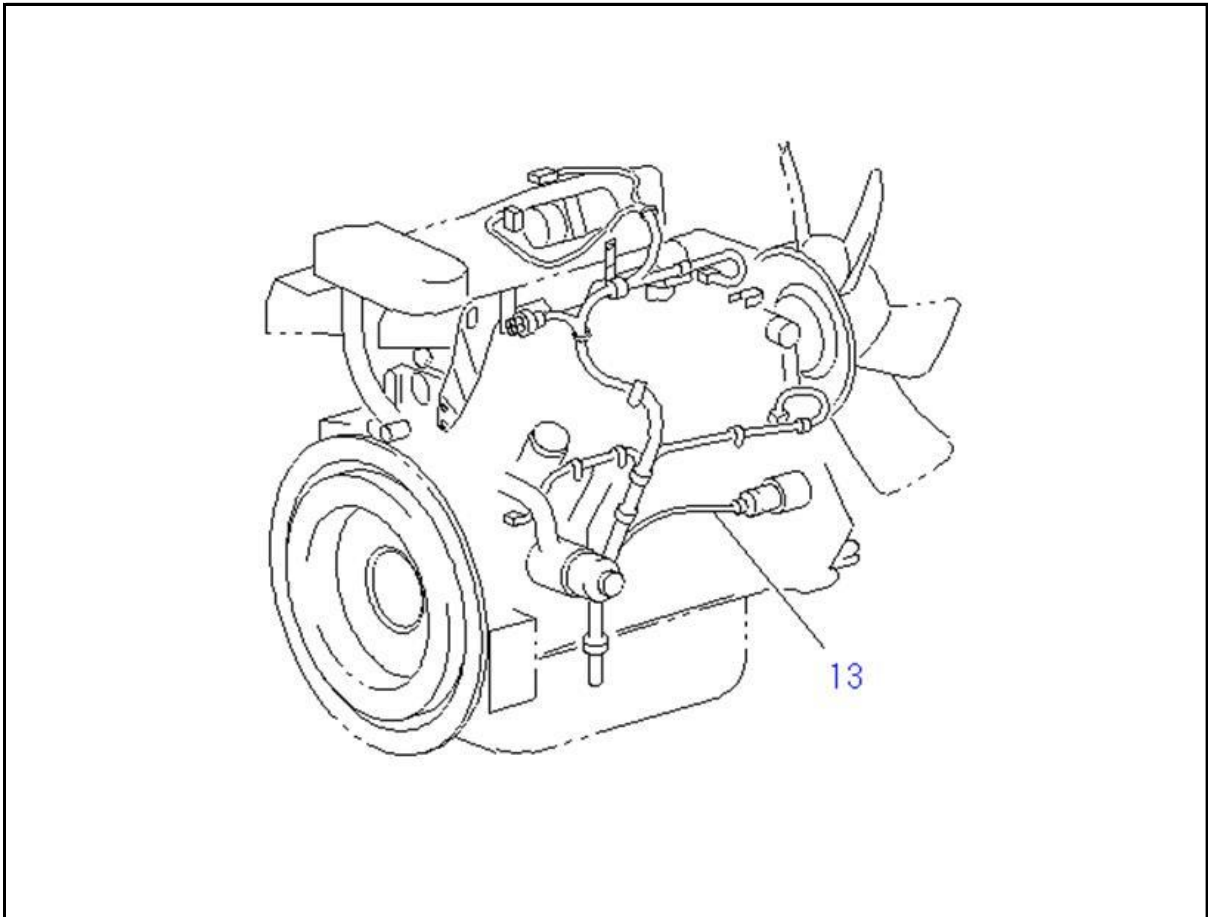
KEY No.	Part no.	qty	Part description	Engine serial no.
1	8-98239-409-0	1	COVER ASM; RR,GEN	
2	8-97212-500-0	1	ROTOR; GEN	
3 (C)	8-97103-807-0	1	BEARING; ROTOR,GEN	
17	8-97256-037-0	1	COVER ASM; FRT,GEN	
19 (C)	8-97212-508-0	1	PULLEY; GEN	
24 (C)	8-97212-510-0	1	SCREW; RECTIFIER,GEN	

1-50 EXHAUST PIPE AND SILENCER



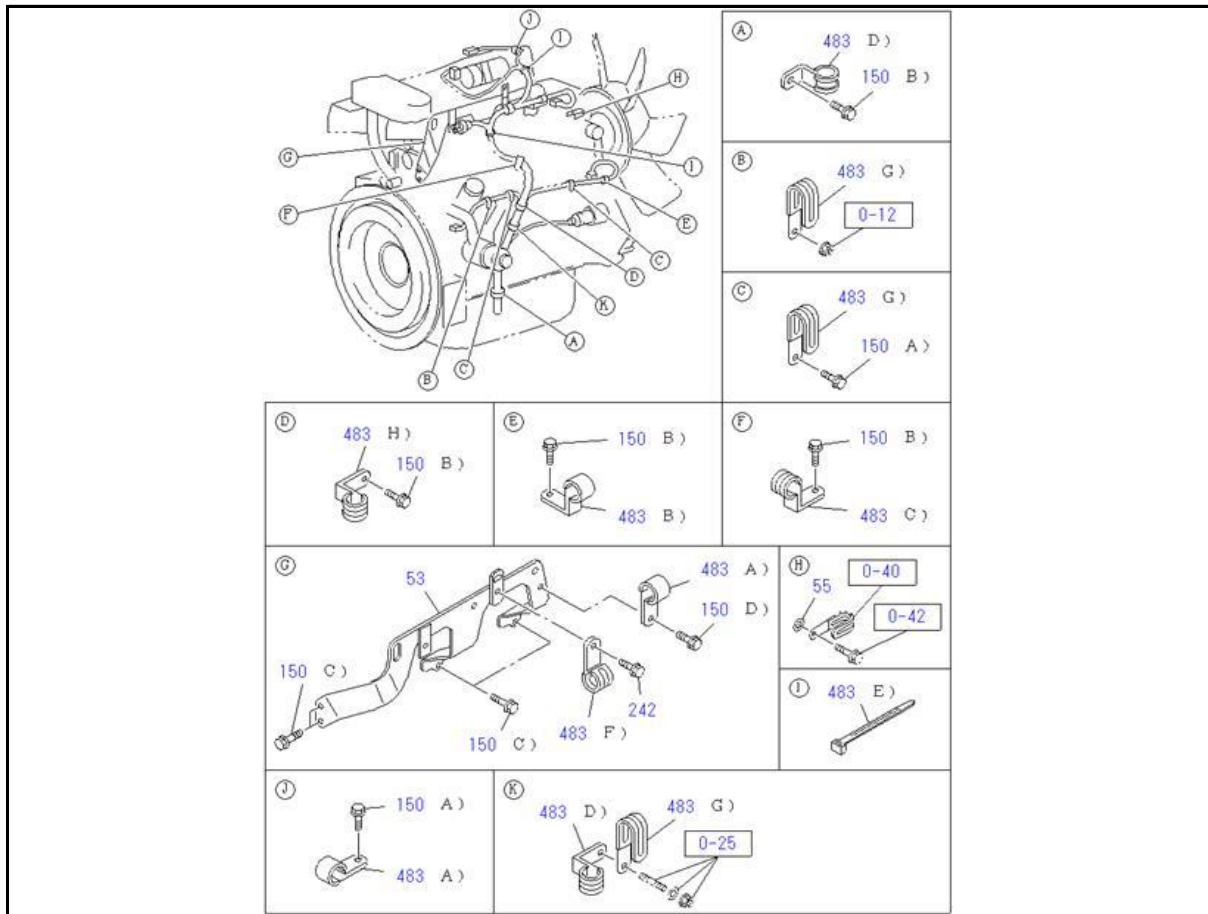
KEY No.	Part no.	qty	Part description	Engine serial no.
2	8-97367-918-0	1	GASKET; PIPE TO MANIF	
35	8-97373-108-0	1	GASKET; EXH PIPE TO MANIF	
76	8-98228-433-0	2	SUPPORT; BRKT	
210 (A)	8-98235-389-0	1	CONVERTER; TYPE 1	
211	8-97161-607-0	4	NUT; CONV M8 FLANGE	
258 (A)	8-98043-528-0	4	BOLT; CONV BRKT M8X28 FLANGE	
258 (B)	8-98210-323-0	2	BOLT; CONV BRKT	

8-10 WIRING HARNESS AND FUSE



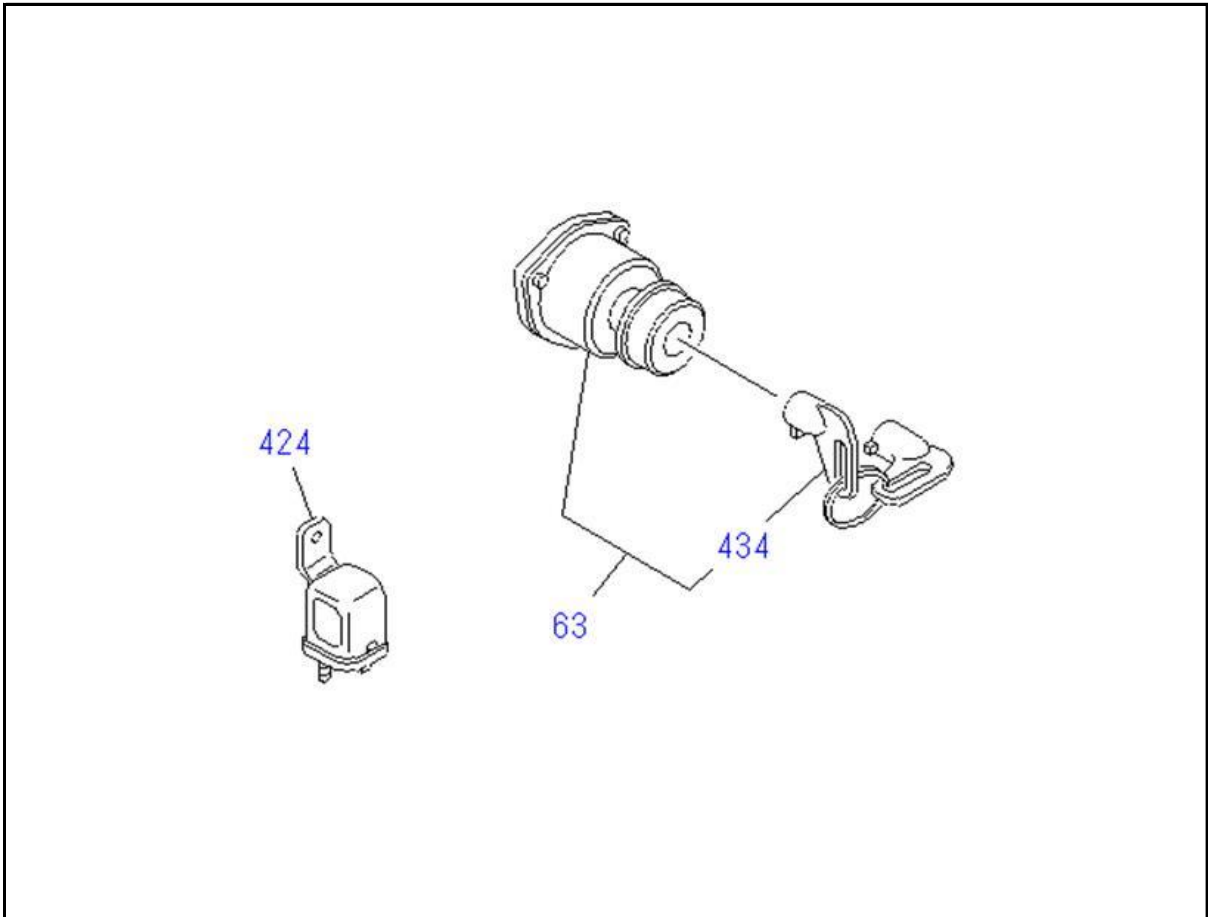
KEY No.	Part no.	qty	Part description	Engine serial no.
13	8-98228-731-0	1	HARNESS; ENG	

8-15 FIXING PARTS; WIRING HARNESS



KEY No.	Part no.	qty	Part description	Engine serial no.
53	8-98209-450-1	1	BRACKET; HARNESS	
55	1-14319-034-0 <0-91610-608-0>	1	WASHER; PL,CLIP ID=8.4 OD=18	
150 (A)	0-28050-612-0	3	BOLT; CLIP M6X12 FLANGE	
150 (B)	0-28050-812-0	4	BOLT; CLIP M8X12 FLANGE	
150 (C)	0-28050-816-0	4	BOLT; CLIP M8X16 FLANGE	
150 (D)	0-28050-616-0	1	BOLT; CLIP M6X16 FLANGE	
242	0-28050-820-0	1	BOLT; BRKT,HARNESS M8X20 FLANGE	
483 (A)	0-95235-022-0	2	CLIP; ENG HARNESS ID=11 L=16	
483 (B)	1-09700-813-0	1	CLIP; ENG HARNESS ID=13 H=18 L=20	
483 (C)	1-09700-948-0	1	CLIP; ENG HARNESS ID=28 H=45 L=30	
483 (D)	1-09700-994-0	2	CLIP; ENG HARNESS ID=31 H=30 L=35	
483 (E)	5-09707-030-1	2	CLIP; ENG HARNESS L=250	
483 (F)	8-94176-807-1	1	CLIP; ENG HARNESS ID=21 L=24	
483 (G)	8-97367-985-1	4	CLIP; ENG HARNESS ID=18 L=44	
483 (H)	1-09701-277-0	1	CLIP; ENG HARNESS ID=26 H=32 L=40	

8-25 SWITCH AND RELAY; INSTRUMENT PANEL



KEY No.	Part no.	qty	Part description	Engine serial no.
63	8-94402-500-0	1	SWITCH ASM; STARTER	
424	5-82550-029-0	1	RELAY 12V LABEL YELLOW	
434	8-94402-498-0	1	KEY; STARTER SW	