



# PARTS MANUAL

**Models**

**EX13, EX17, EX21  
ENGINE**



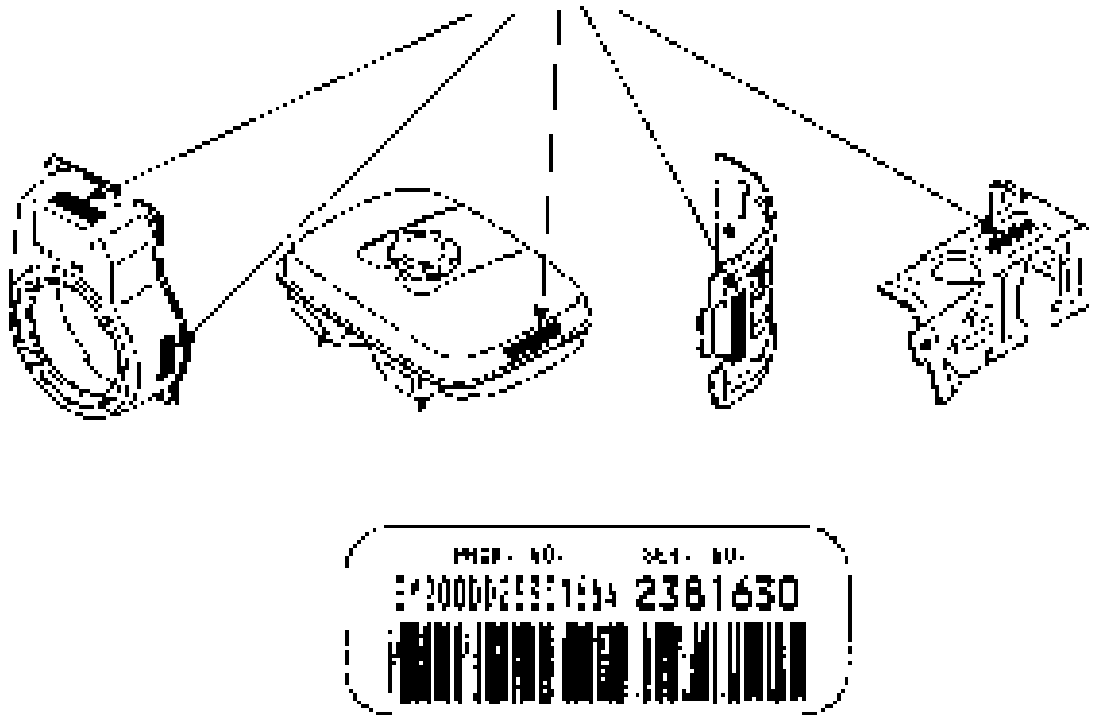
# HOW TO USE THIS MANUAL



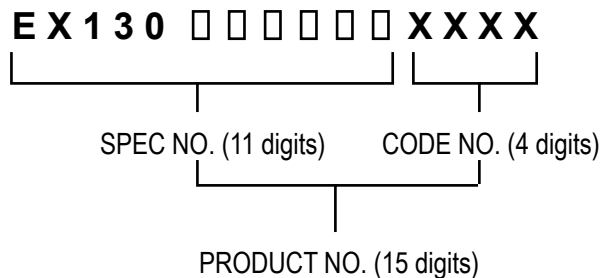
Robin engines are identified by MODEL, SPECIFICATION, and CODE NUMBER. For each model there may be many different versions called specifications. Each specification will be unique in some way. The difference may only be the paint color or it may have a different type of PTO or some other significant difference.

In order to identify the correct service part number, it is important to confirm the specification and code numbers for your engine. The specification and code number together are known as the PRODUCT NUMBER.

All Robin 4 cycle engines have a Product Number label similar to the label illustrated below.



The Product Number Label has a 15 digit alphanumeric string that consists of the SPECIFICATION (SPEC) number (11 digits) and the CODE number (4 digits). Please note the illustration below:





1— SECTION 6 FUEL GROUP

2— FIG. 600

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REF. No.	DESCRIPTION	QTY.	REMARKS	FROM-TO	FIG. No.
10	FUEL INJECTOR	1	YU YU 1-10-1000		600
20	FUEL INJECTOR	1	YU YU 1-10-1000		600
30	FUEL INJECTOR	1	YU YU 1-10-1000		600
40	FUEL INJECTOR	1	YU YU 1-10-1000		600
50	FUEL INJECTOR	1	YU YU 1-10-1000		600
60	FUEL INJECTOR	1	YU YU 1-10-1000		600
70	FUEL INJECTOR	1	YU YU 1-10-1000		600
80	FUEL INJECTOR	1	YU YU 1-10-1000		600
90	FUEL INJECTOR	1	YU YU 1-10-1000		600
100	FUEL INJECTOR	1	YU YU 1-10-1000		600

1. SECTION NAME Parts are broadly classified according to their functions. Refer to the Group Index (table of contents) for respective section name.
2. FIG. No. The FIG. number indexes the reference and part numbers to the illustration. Figure numbers that vary only in the tens place (i.e.: 700 and 710) are in a group of the same section (i.e.:Electrical Device Group).
3. REF. No. The Reference number identifies the part illustration with the corresponding part number in the part list.
4. SUBASSEMBLY SUBASSEMBLY parts of part assembly are listed below the assembly part. The subassembly part reference number is indicated by the number led by "-" such as "-1", "-2".
5. PART NUMBER It is the number assigned for sales unit. Use the PART No. when making an order.
6. DESCRIPTION It is designation of the part.
7. QTY. Quantity of each part used for each product.
8. REMARKS This gives a distinctive feature and/or a supplementary comment for the type, the specification, and the part concerned. It also shows part number(s) interchangeable for the part.
9. FROM-TO This section shows the CODE No. to indicate the history of progress in which improved parts have been introduced in the product. The FROM-TO CODE No. helps to identify PART No. being employed in the product concerned. See the examples below:
  - The part is used in the product irrespective of CODE No.
  - 2101- The part is used in the products with CODE No. of 2101 and after this number.
  - 2100 The part is used in the products with CODE No. of 2100 and before this number.



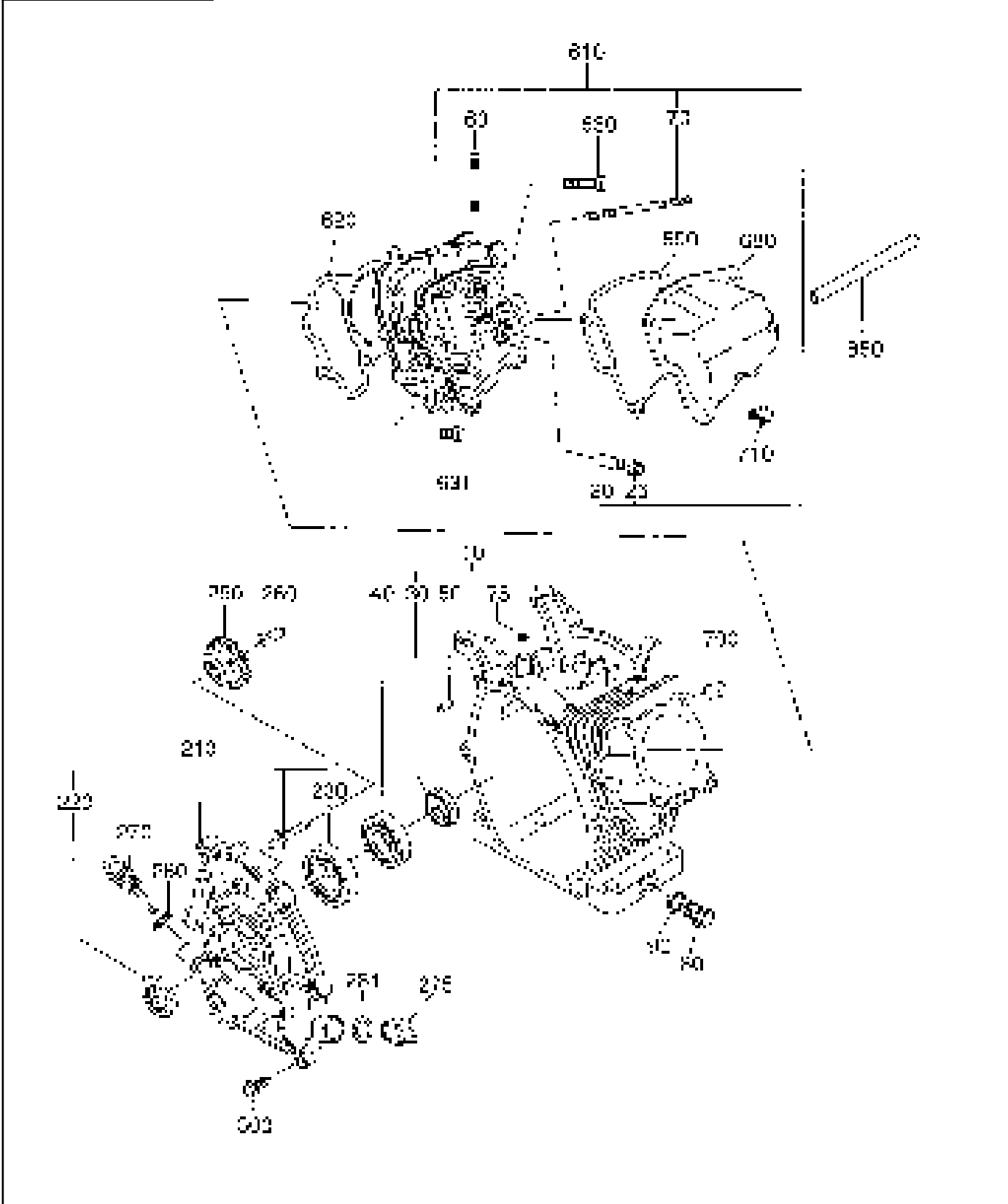
## GROUP INDEX

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<b>INDEX OF DESCRIPTION SYMBOLS</b>			
<b>SYMBOL</b>	<b>DESCRIPTION</b>	<b>SYMBOL</b>	<b>DESCRIPTION</b>
AY .....	ASSEMBLY	P= .....	PITCH (in mm)
CP .....	COMPLETE	P.T.O. (PTO) .....	POWER TAKE OFF
EX .....	EXPORT (from Japan)	REF .....	REFERENCE
FIG .....	FIGURE	R.H. (RH) .....	RIGHT HAND SIDE
FR .....	FRONT	RR .....	REAR
" .....	INCH	STD. ....	STANDARD
INCL. ....	INCLUDE	SW .....	SWITCH
~L .....	LITER	T= .....	THICKNESS (in mm)
L= .....	LENGTH (in. mm)	UN .....	UNIT
L.H. (LH) .....	LEFT-HAND SIDE	U.S. ....	UNDER SIZE
MECH .....	MECHANICAL	~V .....	VOLTAGE
NO (NON) .....	NONE	~W .....	WATT
OPT .....	OPTIONAL	W/ .....	WITH
O.S. ....	OVER SIZE	W/O .....	WITHOUT



FIG. 100



# SECTION 1 CRANKCASE GROUP



REF.	PART NO.	DESCRIPTION	QTY.	REMARKS	FROM-TO	FIG.
10	276-10102-21	CRANKCASE CP	1	Premium - EX13, w/ oil sensor		100
	276-10101-21	CRANKCASE CP	1	5/8" Pump - EX13		100
10	277-10102-31	CRANKCASE CP	1	Premium - EX17, w/ oil sensor		100
	277-10101-31	CRANKCASE CP	1	5/8" Pump - EX17		100
10	278-10102-31	CRANKCASE CP	1	Premium - EX21, w/ oil sensor		100
	278-10101-31	CRANKCASE CP	1	5/8" Pump - EX21		100
20	237-14202-03	VALVE GUIDE	2			100
26	277-16010-01	STEM SEAL	1			100
30	044-02502-00	OIL SEAL	1			100
40	060-02800-20	BALL BEARING	1			100
50	277-15011-03	PIPE KNOCK	2			100
60	010-50802-50	STUD	2			100
70	010-50603-51	STUD	2			100
75	044-00600-20	OIL SEAL	1			100
80	040-11400-30	PLUG	2			100
90	021-11400-20	GASKET	2			100
210	277-11002-11	MAIN BEARING COVER CP	1	SAE		100
220	044-02502-10	OIL SEAL	1			100
230	060-02500-10	BALL BEARING	1			100
250	277-45004-21	GOVERNOR GEAR CP	1			100
260	263-41901-03	GOVERNOR SLEEVE	1			100
270	277-63601-03	OIL GAUGE	1			100
275	277-65001-03	FILLER PLUG	1			100
280	021-31600-20	GASKET	1			100
281	021-31600-20	GASKET	1			100
300	001-04083-50	FLANGE BOLT	6			100
610	276-13001-01	CYLINDER HEAD CP	1	EX13		100
	277-13001-01	CYLINDER HEAD CP	1	EX17		100
	278-13001-01	CYLINDER HEAD CP	1	EX21		100
620	276-15001-13	GASKET, head	1	EX13		100
	277-15001-13	GASKET, head	1	EX17 and EX21		100
630	011-00802-40	FLANGE BOLT	4			100
631	001-04083-50	FLANGE BOLT	1			100
680	277-15501-01	ROCKER COVER CP	1			100
690	277-16001-03	GASKET, rocker cover	1			100
700	277-15011-03	PIPE KNOCK	2			100
710	011-00600-20	FLANGE BOLT	4			100
850	085-10800-00	RUBBER PIPE	1			100
960	276-99001-07	GASKET SET	1	EX13		100
	277-99001-07	GASKET SET	1	EX17 and EX21		100
	EX0-20000-01	GASKET IN A TUBE				

Gasket Sets include the following:  
 Fig. 100 items 90, 280, 620 and 690  
 Fig. 300 items 340 and 550



FIG. 200

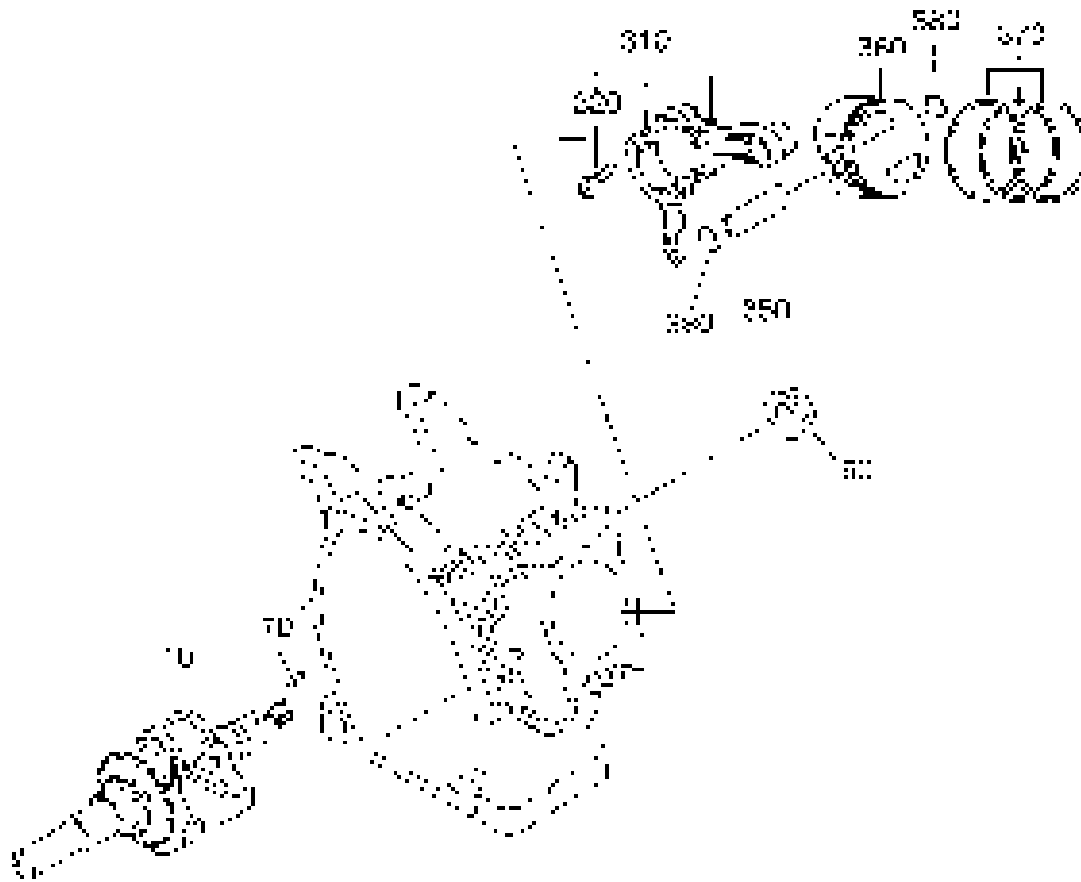
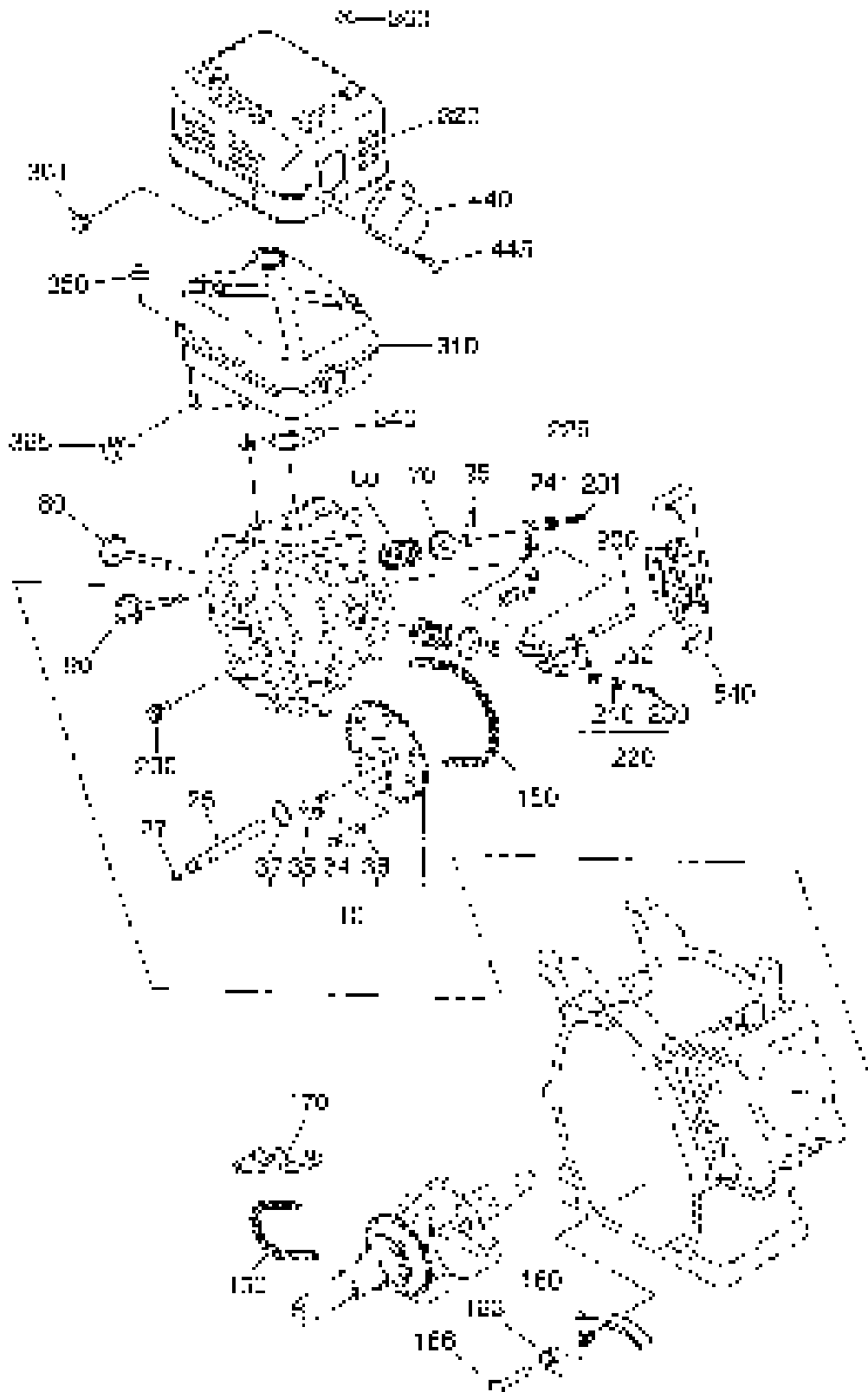








FIG. 300



## SECTION 3

## INTAKE and EXHAUST GROUP

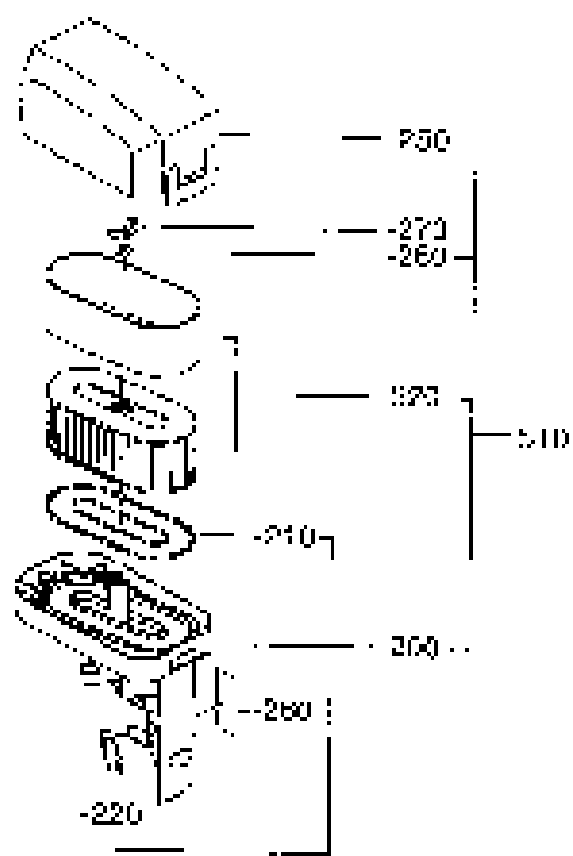
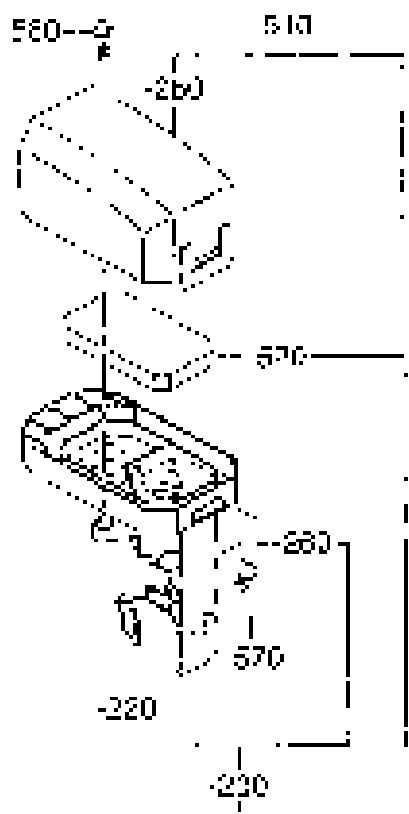


REF.	PART NO.	DESCRIPTION	QTY.	REMARKS	FROM-TO	FIG.
10	277-31601-01	CAMSHAFT CP	1			300
25	277-35101-03	PIN, camshaft	1			300
27	024-00600-10	O RING	1			300
34	277-38601-03	PIN, spring	1			300
35	277-36401-03	RELEASE LEVER	1			300
37	277-36501-03	CLIP	1			300
38	277-38701-03	RETURN SPRING	1			300
60	279-33601-03	VALVE SPRING	2			300
70	269-33701-03	RETAINER VALVE SPRING	2			300
80	276-33401-33	INTAKE VALVE	1	EX13		300
	277-33401-13	INTAKE VALVE	1	EX17 and EX21		300
90	276-33501-33	EXHAUST VALVE	1	EX13		300
	277-33501-13	EXHAUST VALVE	1	EX17 and EX21		300
95	132-10KA0-31	COLLET VALVE	4			300
150	276-35601-01	TIMING CHAIN CP	1	EX13		300
	277-35601-01	TIMING CHAIN CP	1	EX17		300
	278-35601-01	TIMING CHAIN CP	1	EX21		300
160	277-36911-03	TENTIONER	1			300
163	277-37101-03	SPRING, tentioner	1			300
166	277-36902-03	PIN, tentioner	1			300
170	277-36913-13	CHAIN GUIDE	1			300
200	277-35001-23	PIN, rocker	1			300
220	277-36101-00	ROCKER ARM AY, in	1			300
225	277-36102-00	ROCKER ARM AY, ex	1			300
230	014-90500-10	ADJUST SCREW	1			300
231	014-90500-10	ADJUST SCREW	1			300
240	017-00500-20	NUT	1			300
241	017-00500-20	NUT	1			300
290	011-00600-20	FLANGE BOLT	1			300
310	276-30101-11	MUFFLER CP	1	EX13		300
	277-30101-11	MUFFLER CP	1	EX17		300
	278-30101-11	MUFFLER CP	1	EX21		300
320	277-34201-01	MUFFLER COVER	1			300
340	277-35201-03	GASKET, muffler	1			300
350	980-20082-80	FLANGE NUT	2			300
360	015-20600-90	TAPPING BOLT	2			300
361	011-00600-10	FLANGE BOLT	1			300
365	011-00801-50	FLANGE BOLT	1			300
440	277-37001-03	DEFLECTOR	1			300
445	015-00400-60	TAPPING SCREW	2			300
540	277-32901-13	INSULATOR	1			300
550	277-35901-13	GASKET, insulator	1			300
570	002-38060-00	FLANGE NUT	2			300
580	011-00600-50	FLANGE BOLT	1			300



FIG. 310

(A) (B)



### SECTION 3 INTAKE and EXHAUST GROUP



REF.	PART NO.	DESCRIPTION	QTY.	REMARKS	FROM-TO	FIG.
510	277-32611-00	AIR CLEANER AY	1	Foam		300A
	277-32612-00	AIR CLEANER AY	1	Dual element		300B
-200	277-32601-08	BASE CP	1	Foam		300A
-200	277-32605-08	BASE CP	1	Dual element		300B
-210	277-32610-08	PACKING	1	Dual element		300B
-220	277-32604-08	PACKING	1			300A
-250	277-32602-08	COVER CP	1			300A
-260	277-32609-08	LABEL	1			300A
-270	277-32607-08	WING NUT	1	Dual element		300B
-280	277-32608-08	WASHER	1	Dual element		300B
520	277-32603-08	ELEMENT	1	Foam		300A
	277-32611-07	ELEMENT	1	Dual element		300B



FIG. 320

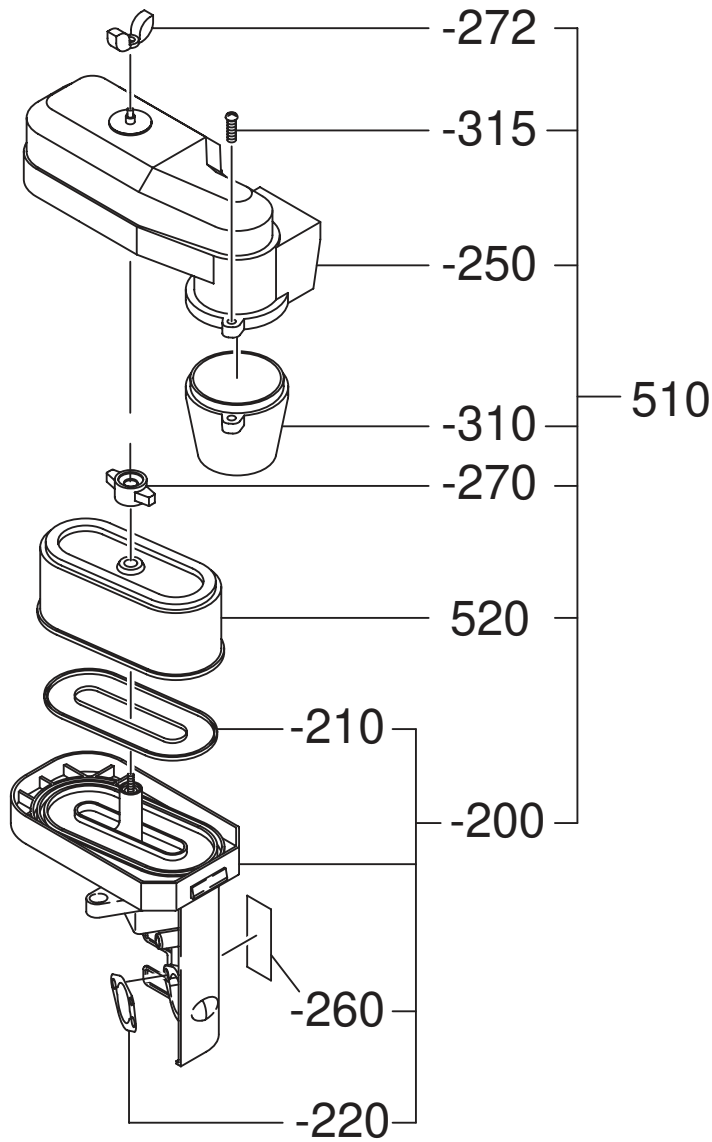
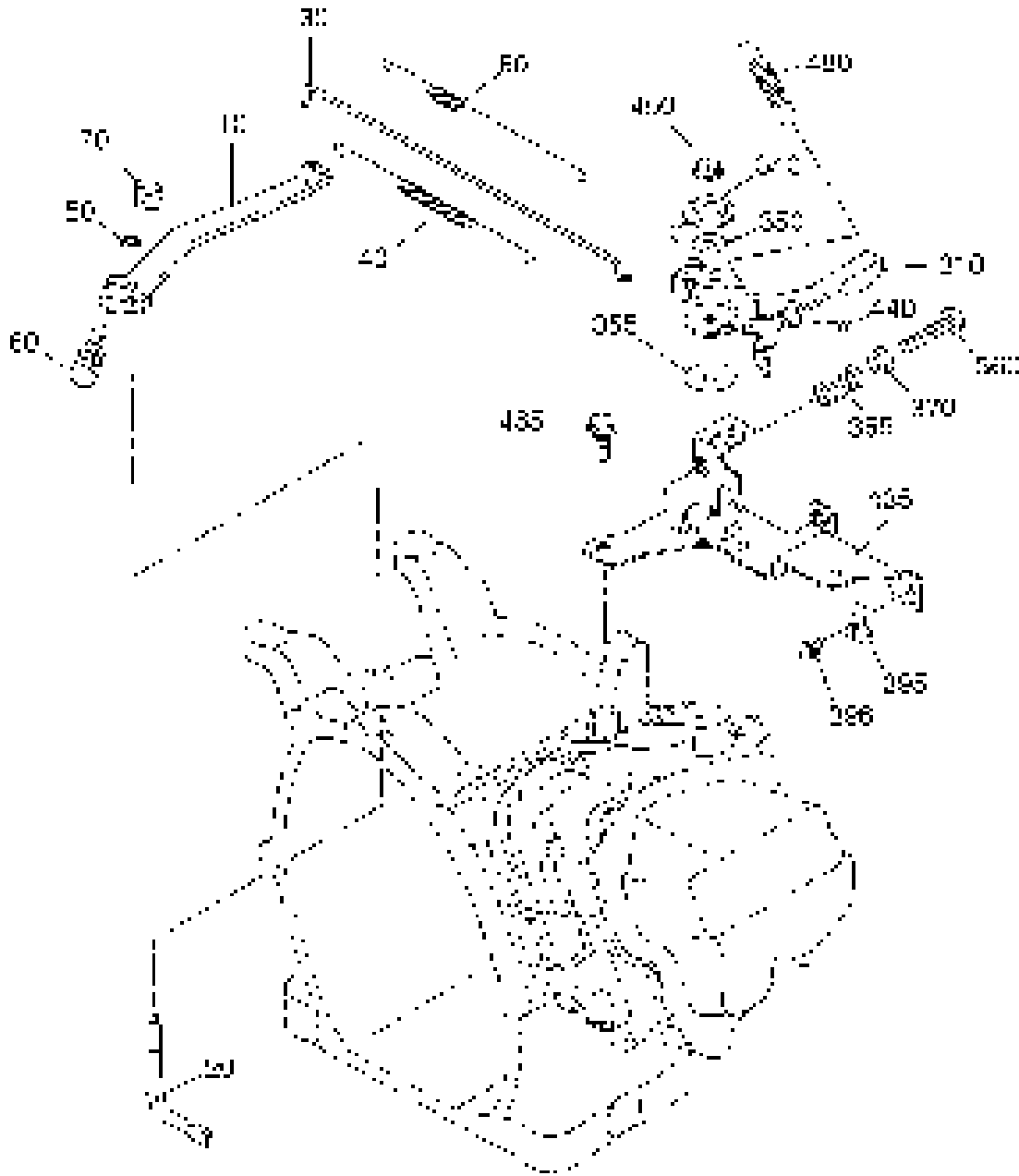






FIG. 400



# SECTION 4 GOVERNOR GROUP



REF.	PART NO.	DESCRIPTION	QTY.	REMARKS	FROM-TO	FIG.
10	277-42301-13	GOVERNOR LEVER	1			400
20	277-42201-33	GOVERNOR SHAFT	1			400
30	279-42701-01	GOVERNOR ROD CP	1	EX13		400
30	277-42701-01	GOVERNOR ROD CP	1	EX17 and EX21		400
40	277-42801-13	ROD SPRING	1			400
50	003-13050-00	CLIP	1			400
60	001-14062-40	BOLT and WASHER AY	1			400
70	018-60600-20	NUT	1			400
80	279-42502-23	GOVERNOR SPRING	1			400
310	277-43302-01	SPEED CONTROL LEVER	1			400
340	277-43501-03	STOP PLATE	1			400
350	020-00601-70	WASHER	1			400
355	021-70600-70	FRICTION WASHER	1			400
360	014-00601-80	SCREW	1			400
365	237-45004-23	SPRING	1			400
370	002-17060-00	NUT	1			400
395	277-43901-03	CLAMP	1			400
396	004-36051-60	SCREW and WASHER AY	1			400
435	277-46001-01	SPEED CONTROL BRKT	1			400
440	004-31040-80	SCREW	1			400
450	002-35060-00	SELF LOCK NUT	1			400
480	277-45101-03	RETURN SPRING	1			400
485	011-00600-20	FLANGE BOLT	2			400





FIG. 500

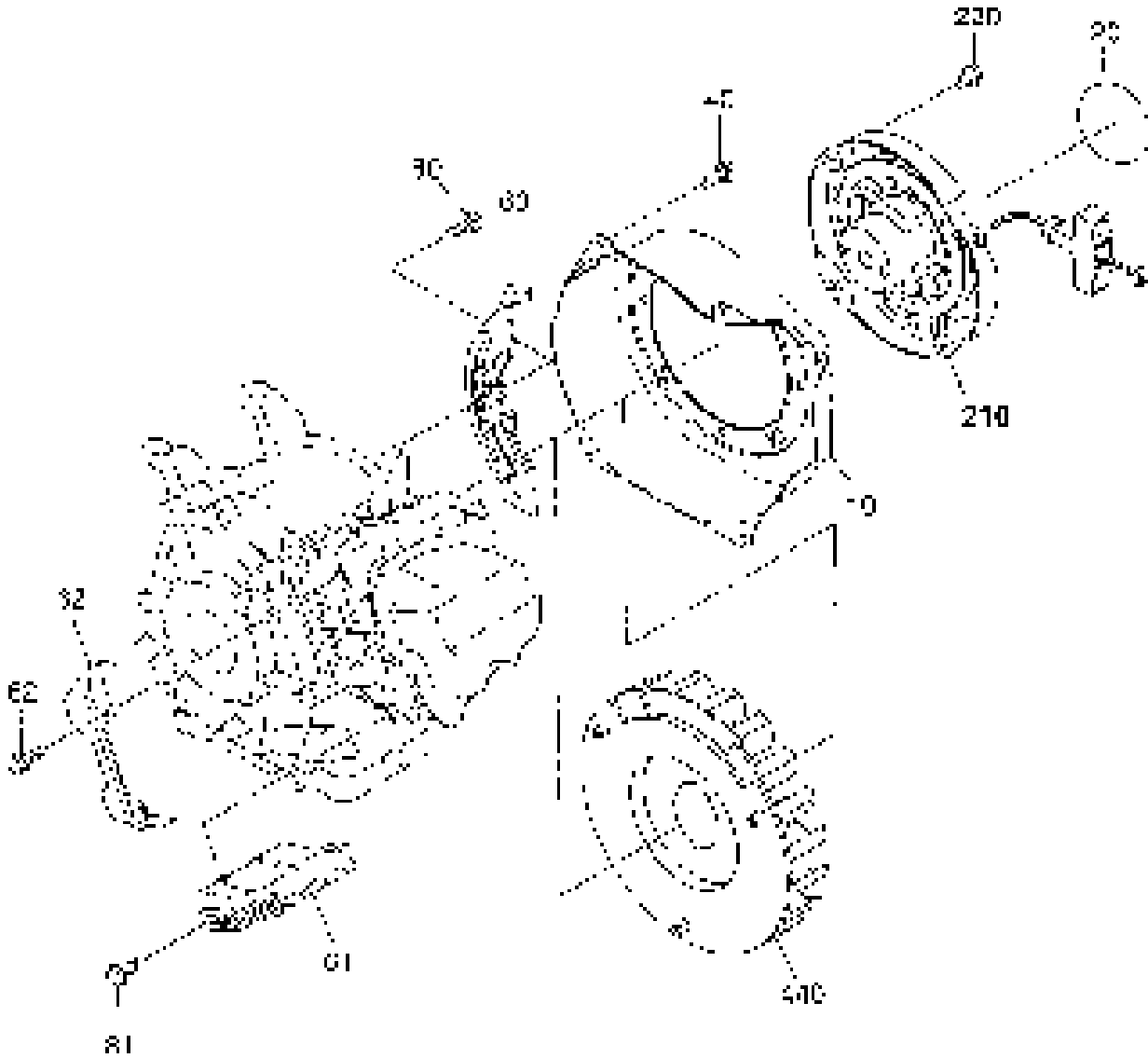






FIG. 510

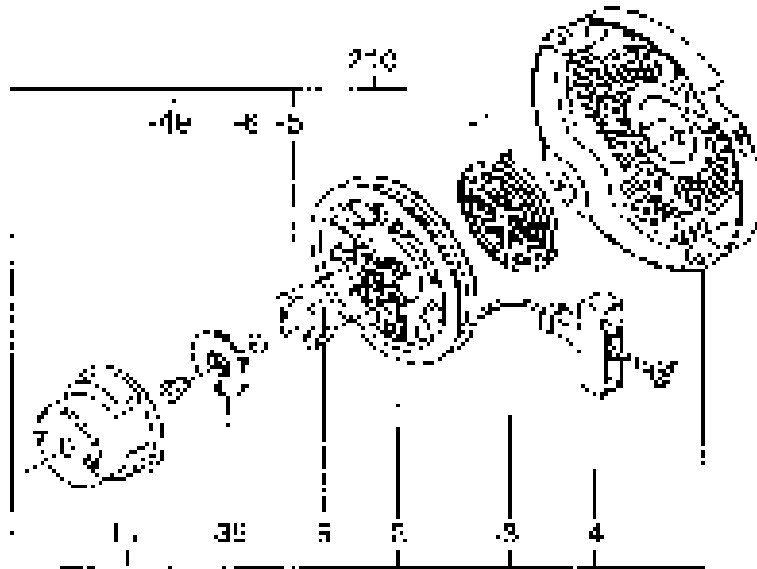






FIG. 600

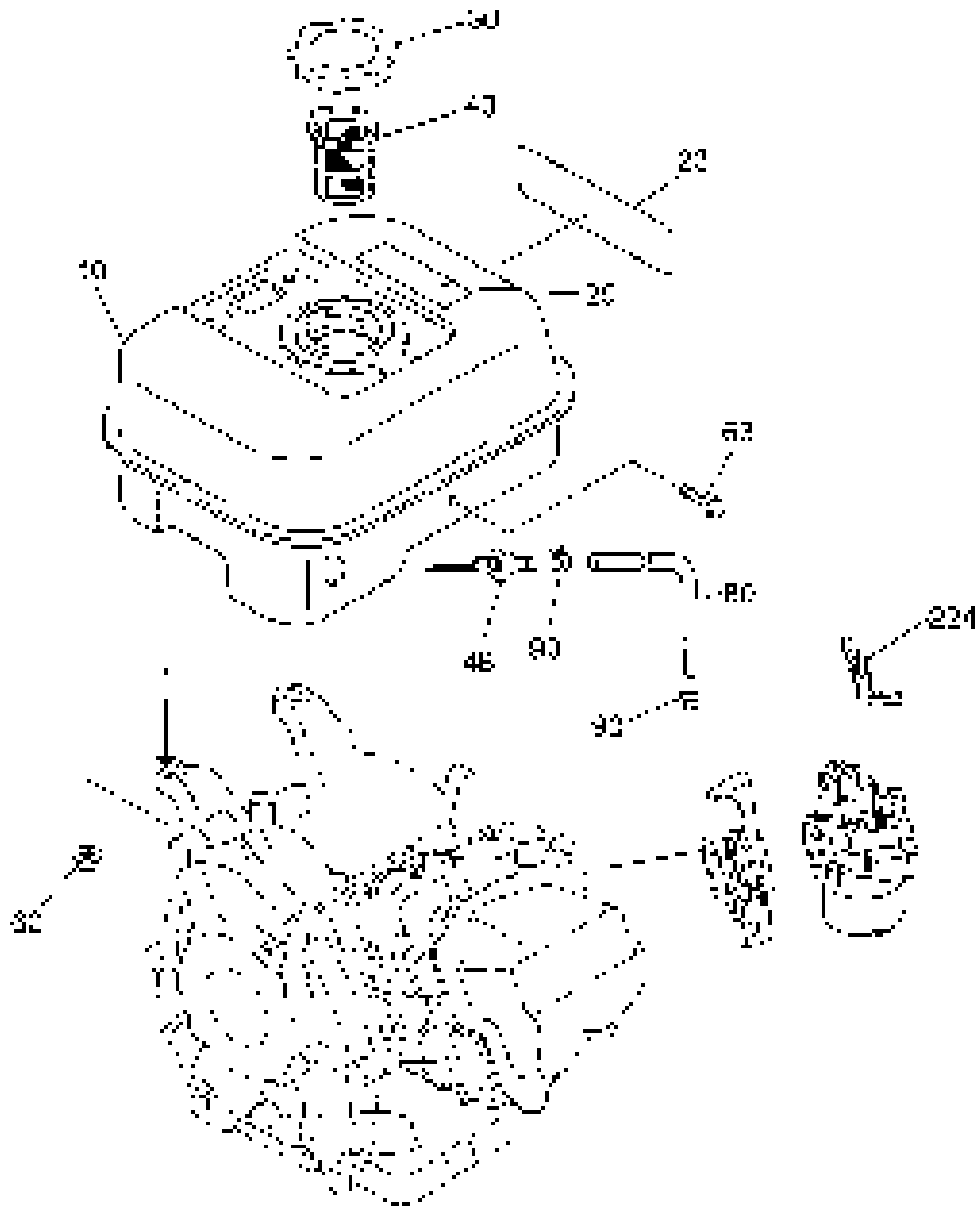
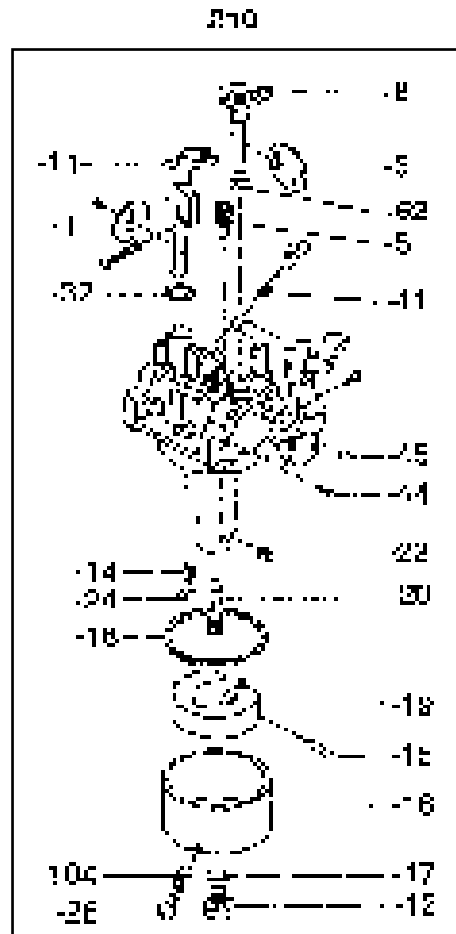






FIG. 610



# SECTION 6 FUEL, LUBRICATION GROUP

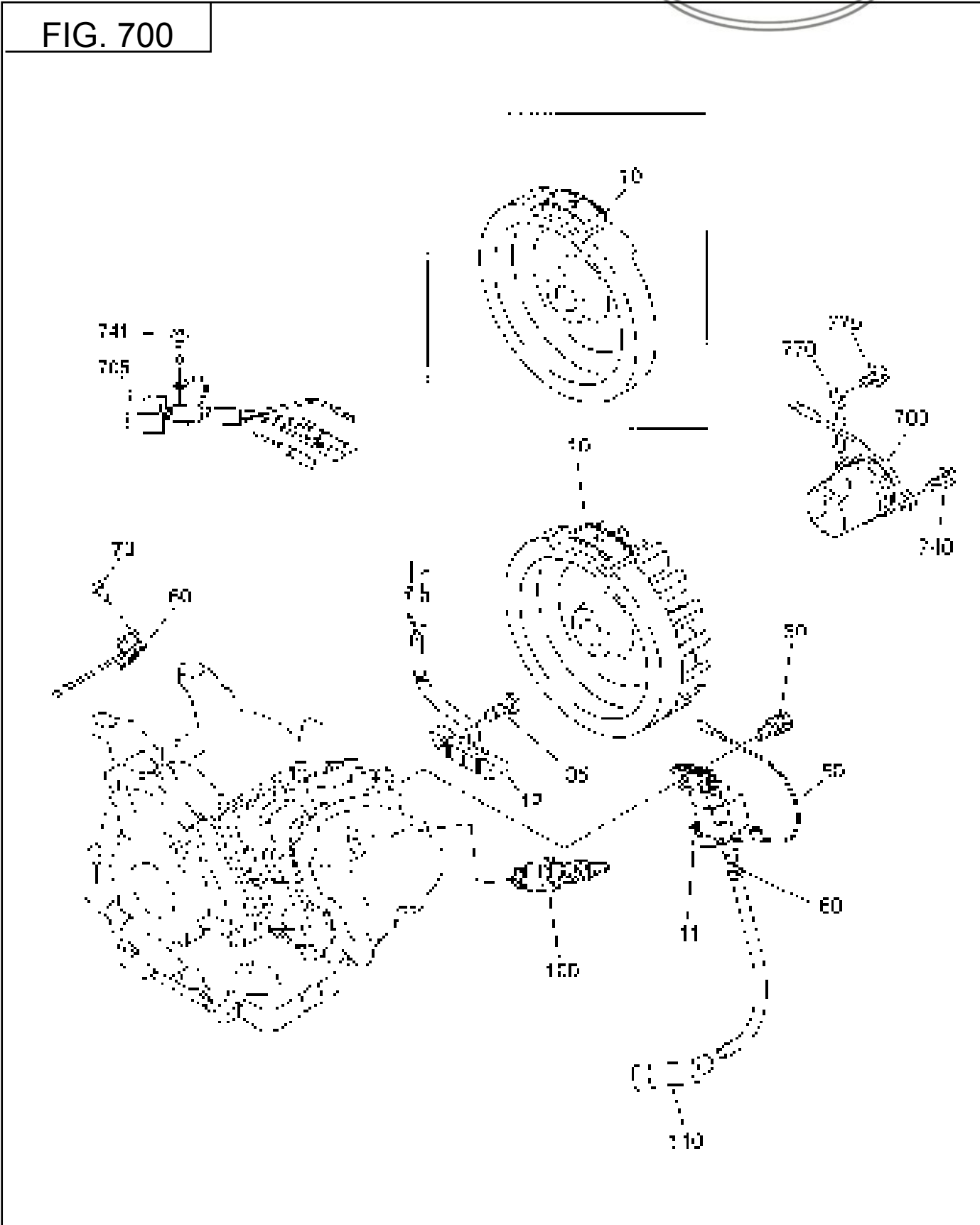


REF.	PART NO.	DESCRIPTION	QTY.	REMARKS	FROM-TO	FIG.
210	276-62302-00	CARBURETOR AY	1	EX13, Dual element		610
	276-62301-00	CARBURETOR AY	1	EX13, Foam		610
	277-62302-00	CARBURETOR AY	1	EX17, Dual element		610
	277-62301-00	CARBURETOR AY	1	EX17, Foam		610
	278-62302-00	CARBURETOR AY	1	EX21, Dual element		610
	278-62301-00	CARBURETOR AY	1	EX21, Foam		610
-1	106-62538-08	THROTTLE VALVE	1	EX13		610
-1	277-62535-08	THROTTLE VALVE	1	EX17,EX21		610
-3	277-62525-08	CHOKE VALVE	1			610
-5	234-62421-08	PILOT JET	1	EX13		610
-5	246-62420-08	PILOT JET	1	EX17		610
-5	252-62420-08	PILOT JET	1	EX21		610
-8	277-62520-08	CHOKE LEVER	1			610
-11	276-62530-08	THROTTLE SHAFT	1	EX13, Foam		610
-11	276-62531-08	THROTTLE SHAFT	1	EX13, Dual element		610
-11	277-62530-08	THROTTLE SHAFT	1	EX17, EX21, Foam		610
-11	277-62531-08	THROTTLE SHAFT	1	EX17, EX21, Dual element		610
-12	227-62451-08	BOLT	1			610
-14	277-62500-08	NEEDLE	1			610
-15	277-62515-08	PIN	1			610
-16	277-62505-08	FLOAT BODY	1			610
-17	214-62450-08	PACKING	1			610
-18	214-62540-08	CHAMBER PACKING	1			610
-19	226-62506-08	FLOAT AY	1			610
-20	276-62440-08	MAIN NOZZLE	1	EX13		610
-20	277-62440-08	MAIN NOZZLE	1	EX17		610
-20	278-62440-08	MAIN NOZZLE	1	EX21		610
-22	276-62400-08	MAIN JET	1	EX13		610
-22	226-62411-08	MAIN JET	1	EX17, Foam		610
-22	277-62401-08	MAIN JET	1	EX17, Dual element		610
-22	278-62400-08	MAIN JET	1	EX21, Foam		610
-22	226-62412-08	MAIN JET	1	EX21, Dual element		610
-24	226-62701-08	CLIP	1			610
-28	277-62350-08	BOLT	1			610
-32	246-62390-08	SEAL	1	Dual element		610
-41	230-62446-08	SPRING	1			610
-44	242-62321-08	AIR JET	1	EX13		610
-44	105-62410-08	AIR JET	1	EX17		610
-44	107-62410-08	AIR JET	1	EX21		610
-45	106-62410-08	AIR JET, PILOT	1			610
-62	236-62680-08	SEAL	1	Dual element		610
-104	236-62541-08	PACKING	1			610





FIG. 700



# SECTION 7      ELECTRIC DEVICE GROUP



REF.	PART NO.	DESCRIPTION	QTY.	REMARKS	FROM-TO	FIG.
10	276-79230-01	FLYWHEEL CP	1	EX13		700
	277-79230-01	FLYWHEEL CP	1	EX17		700
	278-79240-11	FLYWHEEL CP	1	EX21		700
11	277-79430-01	IGNITION COIL CP	1			700
30	001-14062-50	BOLT and WASHER AY	2			700
50	277-73101-01	WIRE 1 CP	1	EX21 w/o oil sensor		700
50	277-73102-01	WIRE 2 CP	1	EX13,17,21 w/ oil sensor		700
60	066-00003-61	SWITCH AY	1			700
70	015-00400-90	TAPPING SCREW	2			700
80	024-10701-10	GROMMET	1			700
100	065-01401-50	SPARK PLUG	1			700
110	065-50002-70	SPARK PLUG CAP	1			700
700	277-76301-01	OIL SENSOR CP	1			700
705	KU3-11043-01	FLOAT C/U CP3	1			700
740	001-14061-60	BOLT and WASHER AY	2			700
741	015-20500-10	TAPPING SCREW	1			700
770	214-79006-01	CLAMP CP	1			700
775	011-00600-20	FLANGE BOLT	1			700



FIG. 900

