

PARTS MANUAL

Model

**PKX301ST
PUMP**

PUB-PP
Rev. 0312



SUBARU

Industrial Power Products

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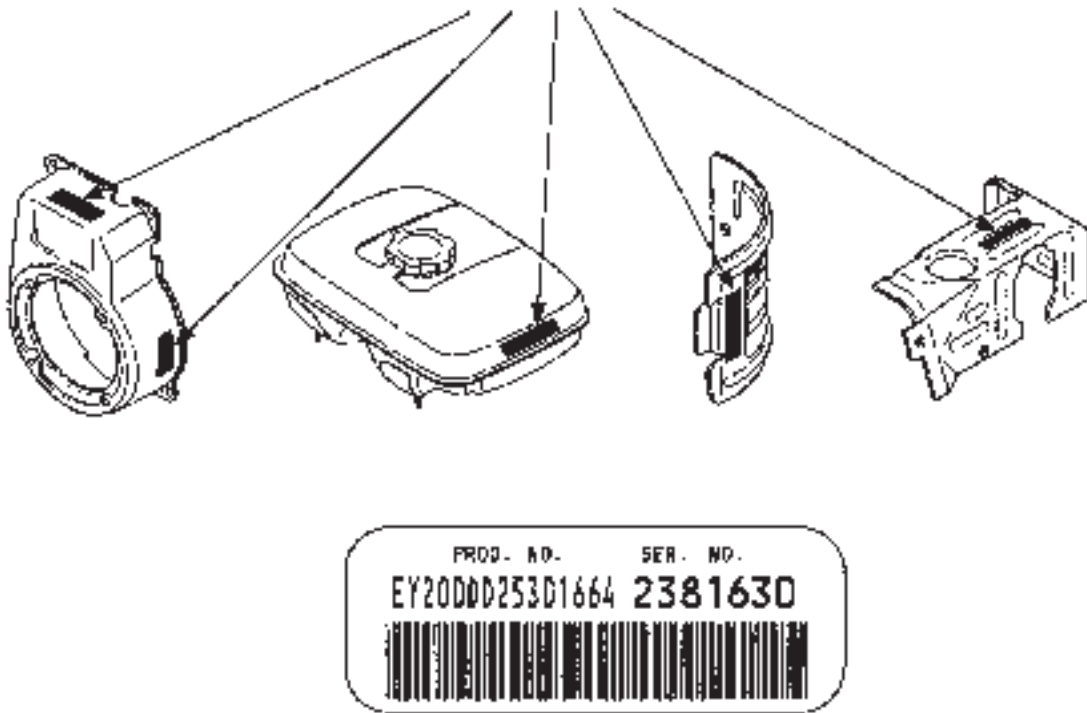
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HOW TO USE THIS MANUAL

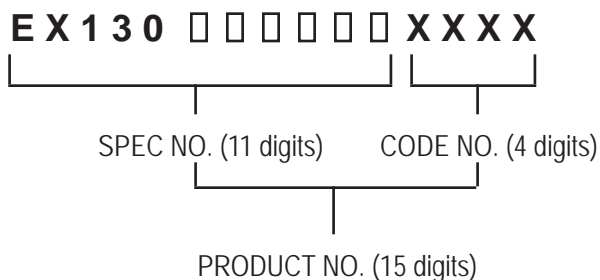
Robin engines are identified by MODEL, SPECIFICATION, and CODE NUMBER. For each model there may be many different versions called specifications. Each specification will be unique in some way. The difference may only be the paint color or it may have a different type of PTO or some other significant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

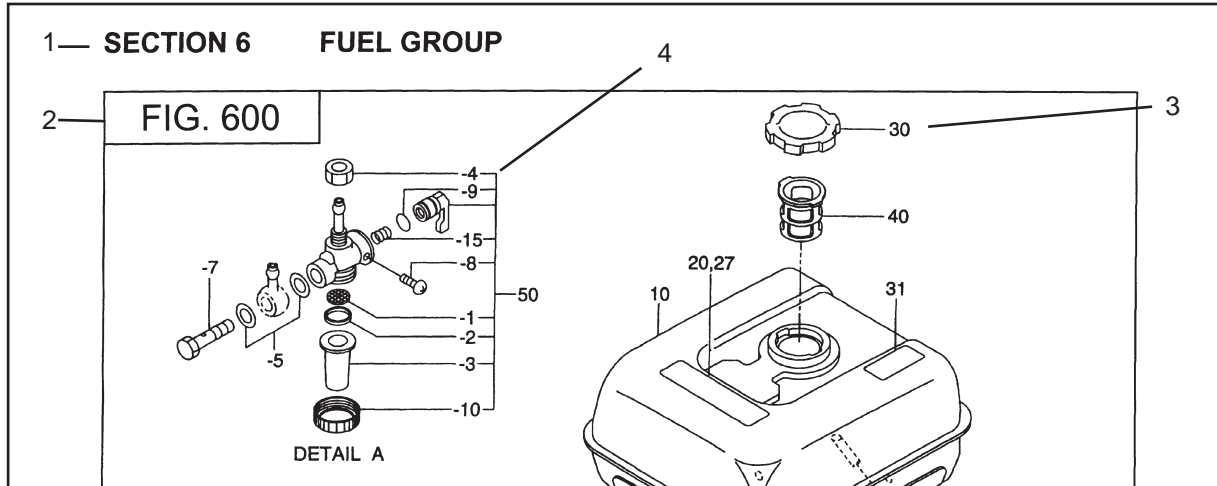
All Robin 4 cycle engines have a Product Number label similar to the label illustrated below.



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:



MANUAL LAYOUT



REF.	PART NO.	DESCRIPTION	QTY.	REMARKS	FROM-TO	FIG.
10	267-60103-01	FUEL TANK CP	1	YD, YS TYPE, BLACK		600
	267-60101-01	FUEL TANK CP	1	YELLOW		600
27	073-20099-00	LABEL, WARNING	1	YD, YS TYPE		600
30	043-04300-15	FUEL TANK CAP CP	1			600
31	267-95701-03	LABEL, EMISSION	1	YD, YS TYPE		600
40	064-13600-10	FUEL FILTER	1			600
50	064-20021-01	FUEL STRAINER, NY	1			600
-1	064-20002-20	FILTER	1			600
-2	064-20002-30	GASKET	1			600
-3	064-20019-10	CLIP	1			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.

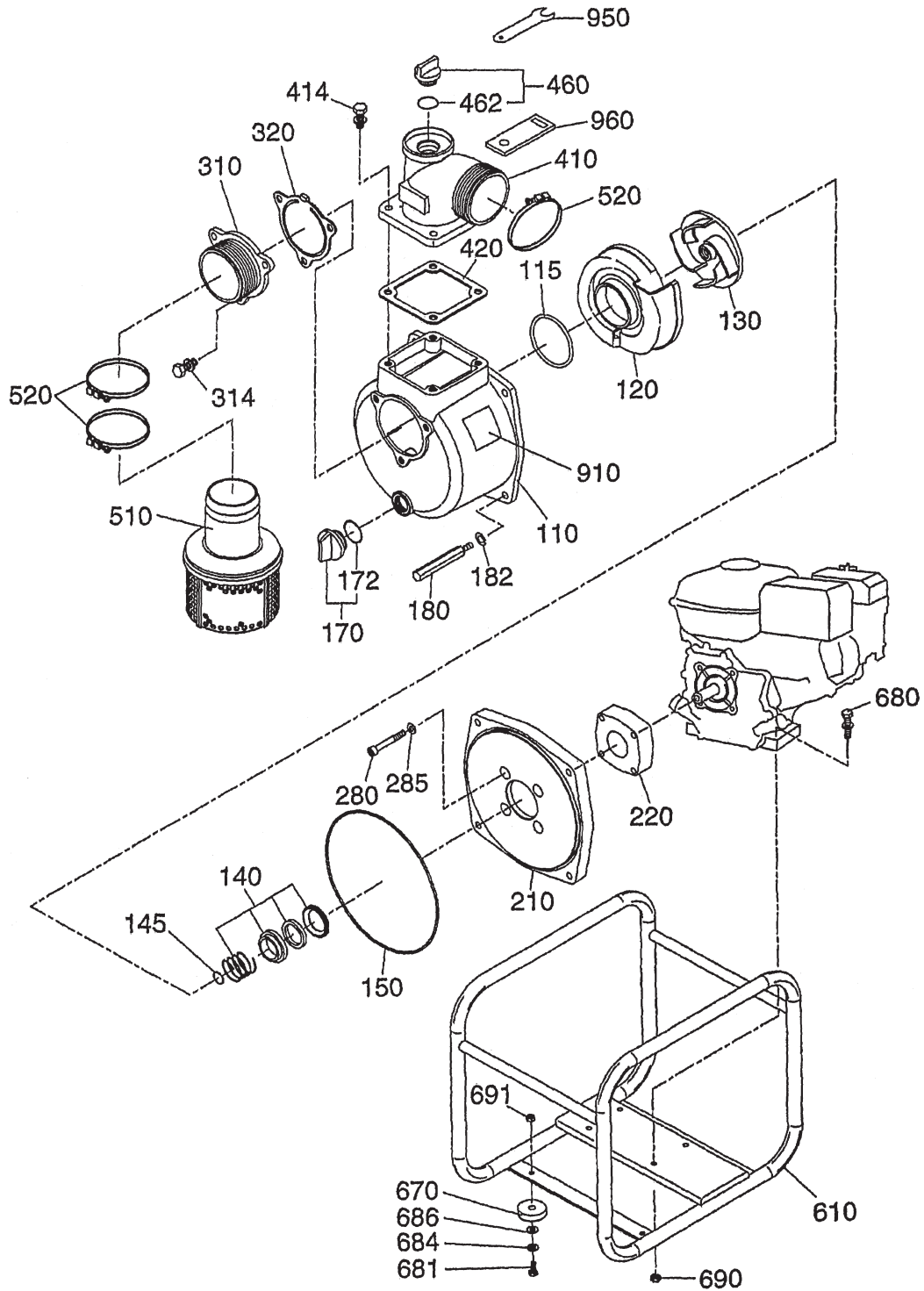
GROUP INDEX

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INDEX OF DESCRIPTION SYMBOLS			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
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

SECTION 1 PUMP GROUP

FIG. 100

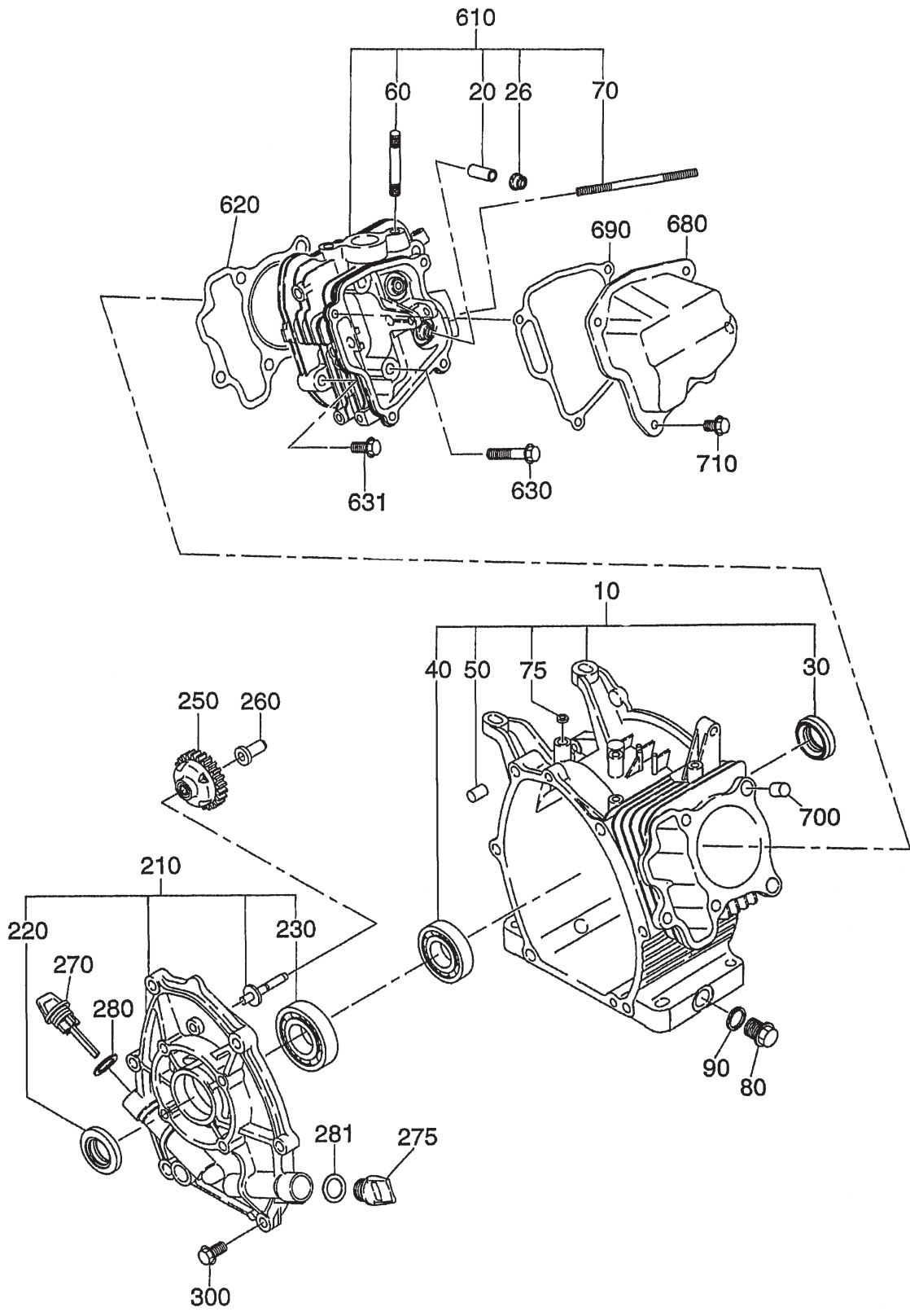


SECTION 1 PUMP GROUP

REF.	PART NO.	DESCRIPTION	QTY.	REMARKS	FROM-TO	FIG.
110	470-01127-95	CASING	1	PKX301ST		100
110	476-01215-47	CASING	1	PKX320ST		100
115	470-01139-89	O RING	1			100
120	470-01155-41	INNER CASING	1			100
130	470-01155-39	IMPELLER	1			100
140	470-01151-59	MECHANICAL SEAL	1			100
145	470-01104-91	ADJUSTING WASHER	3			100
150	470-01150-15	O RING	1			100
170	470-01180-78	PLUG AY	1			100
172	471-00000-05	O RING	1			100
180	470-01155-42	BOLT	4			100
182	471-00000-69	SPRING WASHER	4			100
210	470-01152-69	FLANGE BRACKET	1			100
220	470-01155-40	SPACER	1			100
280	471-00000-03	SOCKET BOLT	4			100
285	471-00000-02	SEAL WASHER	4			100
310	470-01128-76	SUCTION FLANGE	1			100
314	471-00000-50	BOLT and WASHER	3			100
320	470-01127-99	CHECK VALVE	1			100
410	470-01133-37	DELIVERY FLANGE	1			100
414	471-00000-34	BOLT and WASHER	4			100
420	470-01105-84	PACKING, delivery	1			100
460	470-01180-79	PLUG AY	1			100
462	471-00000-09	O RING	1			100
510	470-01132-42	STRAINER	1			100
520	471-00000-06	HOSE BAND	3			100
610	470-01176-91	FRAME	1			100
670	470-01105-15	CUSHION RUBBER	4			100
680	471-00000-65	BOLT and WASHER	4			100
681	471-00000-71	BOLT and WASHER	4			100
684	471-00000-68	SPRING WASHER	4			100
686	471-00000-66	WASHER	4			100
690	471-00000-57	NUT	4			100
691	471-00000-57	NUT	4			100
910	470-01165-63	LABEL, pump name	1			100
950	470-01155-89	SPANNER	1			100
960	470-01155-88	SPANNER HOLDER	1			100

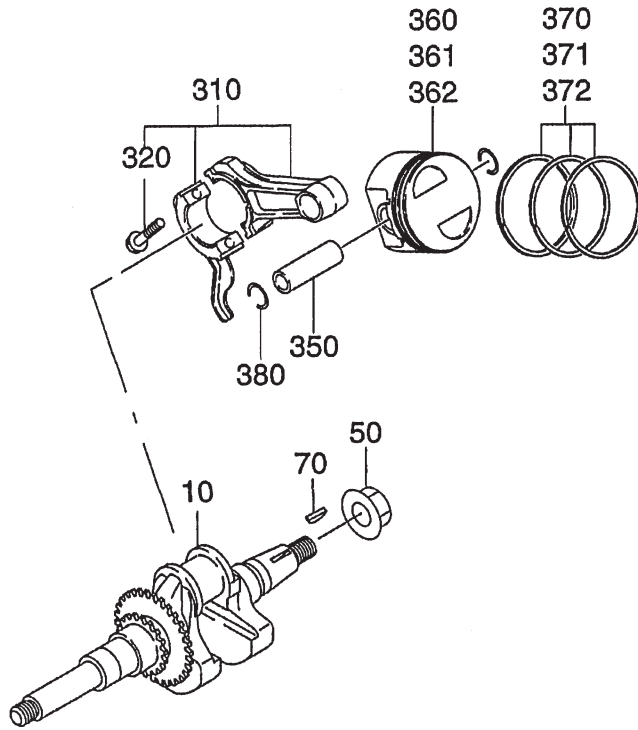
SECTION 2 CRANKCASE GROUP

FIG. 200



SECTION 3 CRANKSHAFT GROUP

FIG. 300

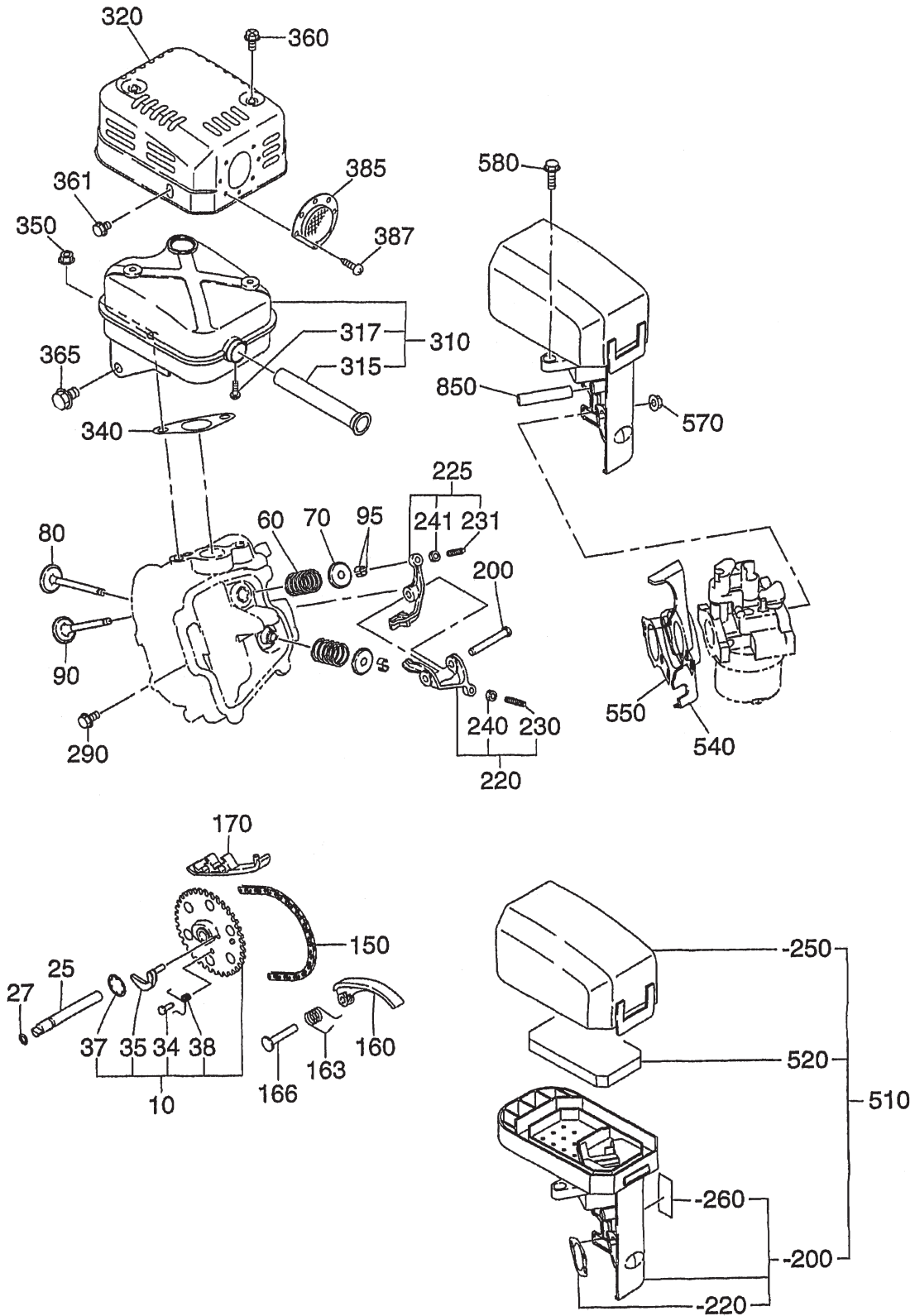


SECTION 3 CRANKSHAFT GROUP

REF.	PART NO.	DESCRIPTION	QTY.	REMARKS	FROM-TO	FIG.
10	277-20301-21	CRANKSHAFT	1			300
50	018-01400-20	FLANGE NUT	1			300
70	032-30300-10	WOODRUFF KEY	1			300
310	277-22501-10	CONNECTING ROD AY	1			300
320	277-23001-03	CONNECTING ROD BOLT	2			300
350	277-23301-03	PISTON PIN	1			300
360	277-23401-03	PISTON	1	STD		300
361	277-23403-03	PISTON	1	Oversize 0.25		300
362	277-23404-03	PISTON	1	Oversize 0.50		300
370	277-23511-27	PISTON RING SET	1	STD		300
371	277-23512-07	PISTON RING SET	1	Oversize 0.25		300
372	277-23513-07	PISTON RING SET	1	Oversize 0.50		300
380	056-51600-10	CLIP	2			300

SECTION 4 INTAKE and EXHAUST GROUP

FIG. 400

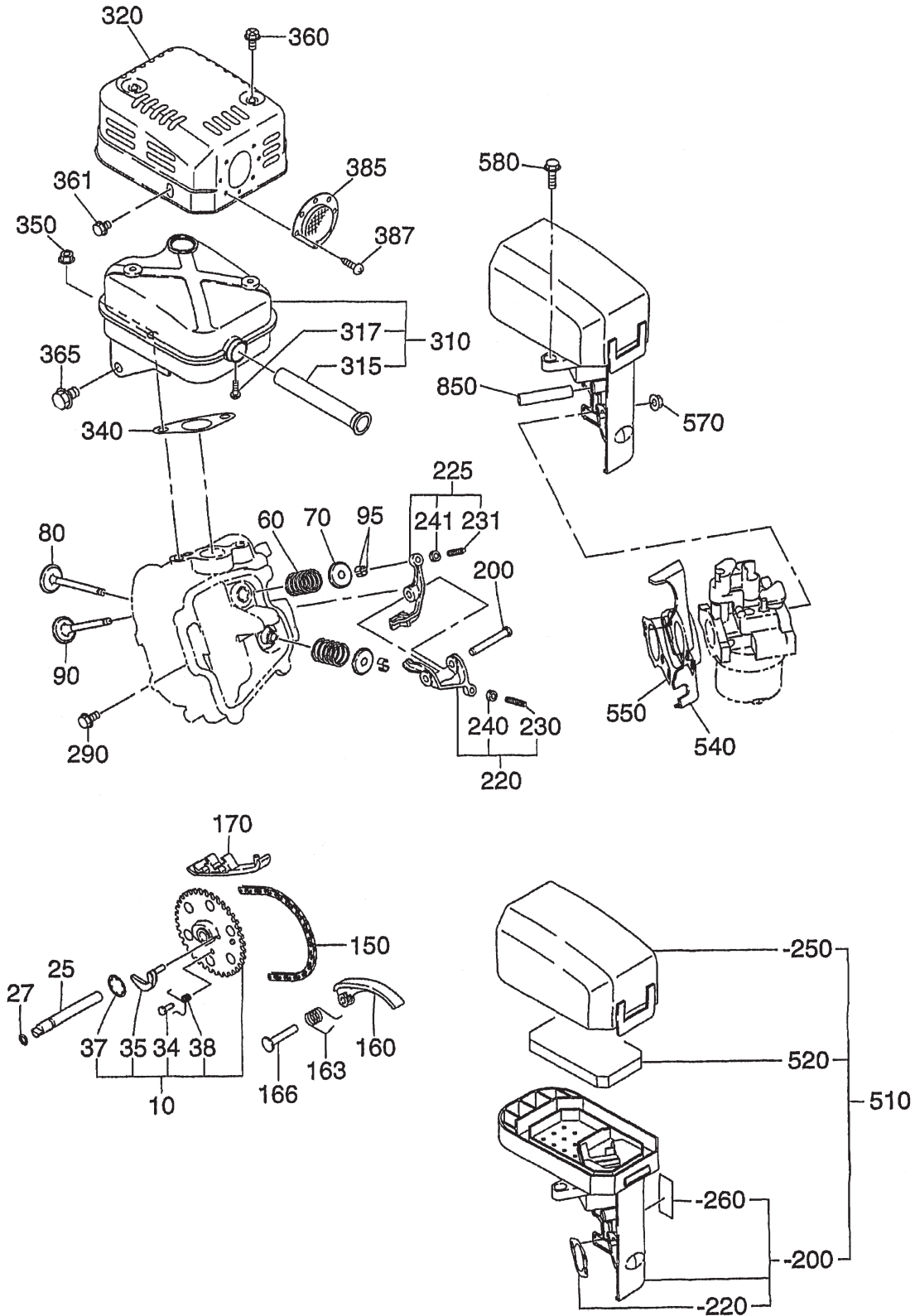


SECTION 4 INTAKE and EXHAUST GROUP

REF.	PART NO.	DESCRIPTION	QTY.	REMARKS	FROM-TO	FIG.
10	277-31601-01	CAMSHAFT	1			400
25	277-35101-03	PIN, camshaft	1			400
27	024-00600-10	O RING	1			400
34	277-38601-03	PIN, spring	1			400
35	277-36401-03	RELEASE LEVER	1			400
37	277-36501-03	CLIP	1			400
38	277-38701-03	RETURN SPRING	1			400
60	279-33601-03	VALVE SPRING	2			400
70	269-33701-03	SPRING RETAINER	2			400
80	277-33401-13	INTAKE VALVE	1			400
90	277-33501-13	EXHAUST VALVE	1			400
95	132-10KA0-31	COLLET VALVE	4			400
150	277-35601-01	TIMING CHAIN	1			400
160	277-36911-03	TENTIONER	1			400
163	277-37101-03	SPRING, tentioner	1			400
166	277-36902-03	PIN, tentioner	1			400
170	277-36913-13	CHAIN GUIDE	1			400
200	277-35001-23	ROCKER PIN	1			400
220	277-36101-00	ROCKER ARM, intake	1			400
225	277-36102-00	ROCKER ARM, exhaust	1			400
230	014-90500-10	ADJUST SCREW	1			400
231	014-90500-10	ADJUST SCREW	1			400
240	017-00500-20	NUT	1			400
241	017-00500-20	NUT	1			400
290	011-00600-20	FLANGE BOLT	1			400
310	277-30111-00	MUFFLER	1	w/ Spark arrester	5845~	400
	277-30101-11	MUFFLER	1		~5844	400
315	277-37601-01	SPARK ARRESTER	1			400
317	015-00400-60	TAPPING SCREW	1			400
320	277-34201-11	MUFFLER COVER	1			400
340	277-35201-03	GASKET, muffler	1			400
350	980-20082-80	FLANGE NUT	2			400
360	015-20600-90	TAPPING BOLT	2			400
361	011-00600-10	FLANGE BOLT	1			400
365	011-00801-50	FLANGE BOLT	1			400
385	277-37203-01	SCREEN	1			400
387	015-00400-60	TAPPING SCREW	2			400
510	277-32611-00	AIR CLEANER AY	1			400
-200	277-32601-08	BASE CP	1			400
-220	277-32604-08	PACKING	1			400
-250	277-32602-08	COVER	1			400
-260	277-32609-08	LABEL	1			400
520	277-32603-08	ELEMENT	1			400
540	277-32901-13	INSULATOR	1			400
550	277-35901-13	GASKET, insulator	1			400
570	002-38060-00	FLANGE NUT	2			400

SECTION 4 INTAKE and EXHAUST GROUP

FIG. 400

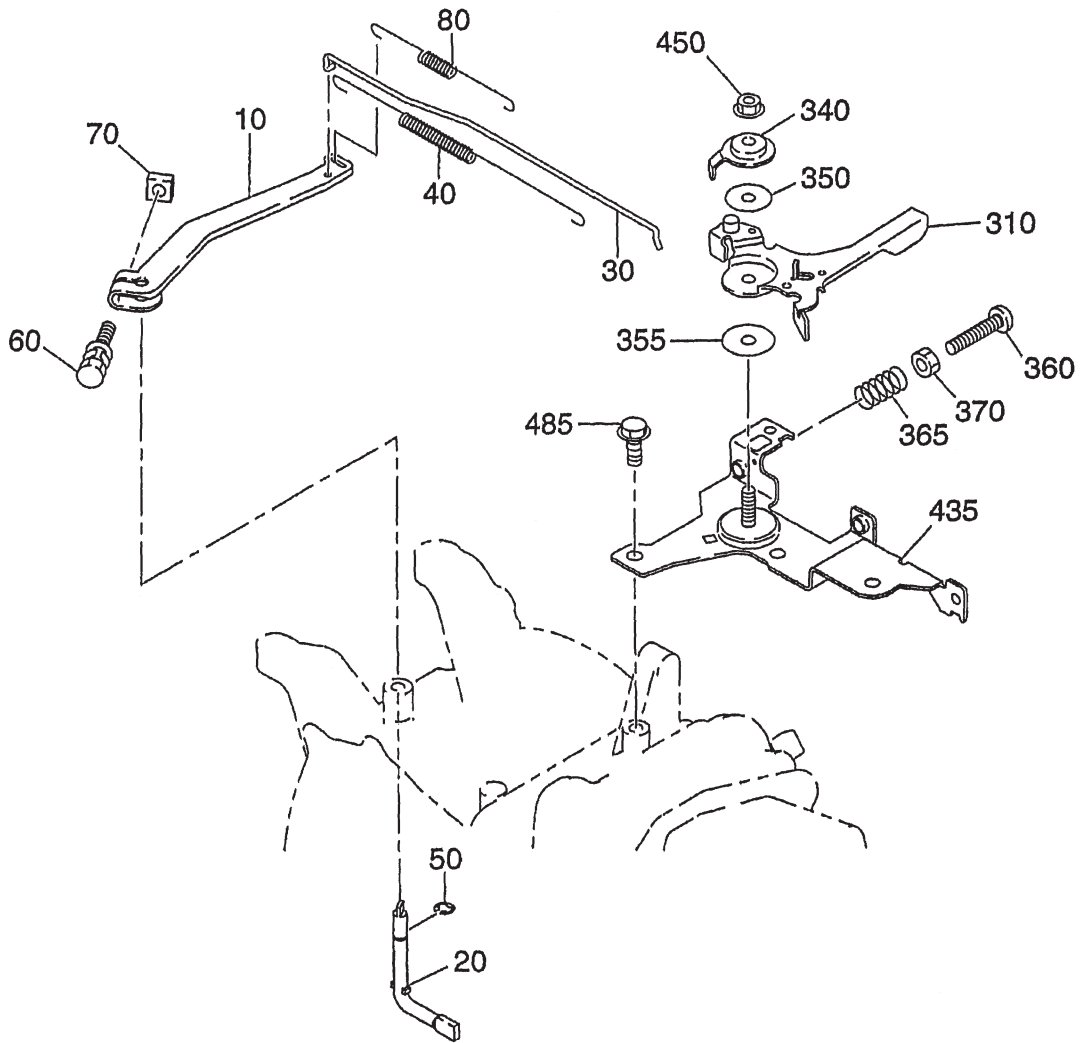


SECTION 4 INTAKE and EXHAUST GROUP

REF.	PART NO.	DESCRIPTION	QTY.	REMARKS	FROM-TO	FIG.
580	011-00600-50	FLANGE BOLT	1			400
850	085-10800-00	RUPPBER PIPE	1			400

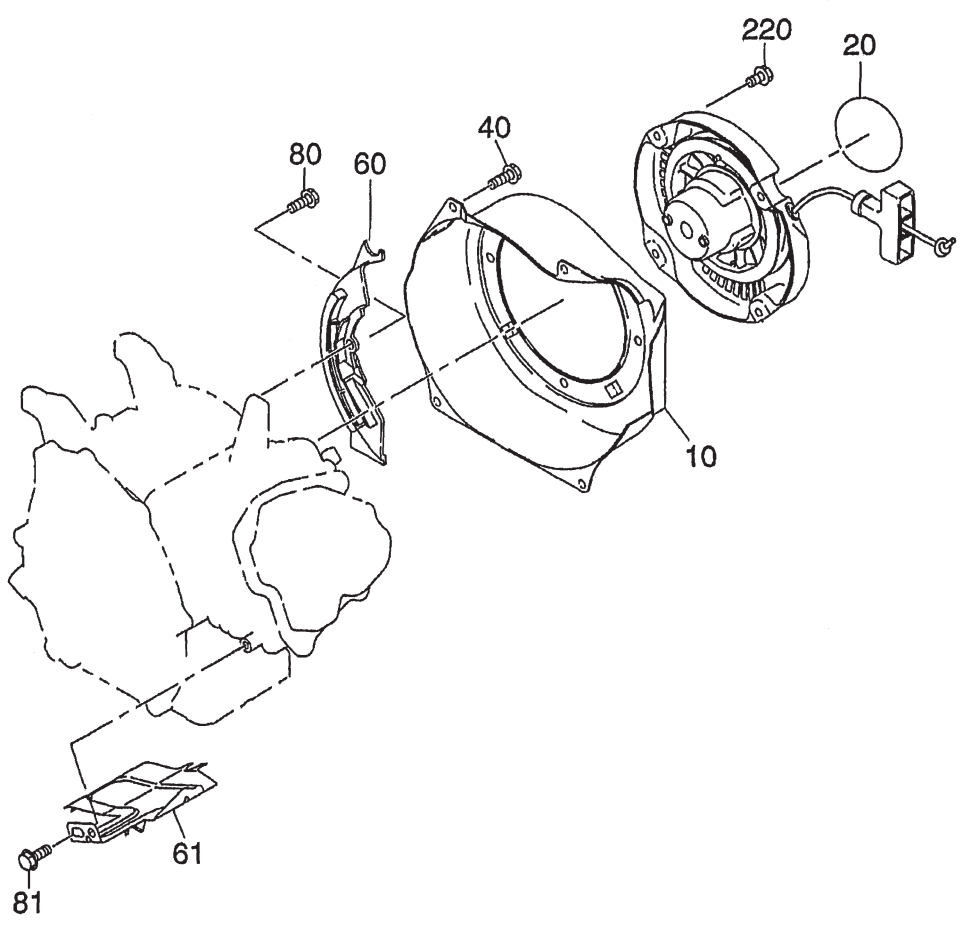
SECTION 5 GOVERNOR GROUP

FIG. 500



SECTION 6 COOLING and STARTING GROUP

FIG. 600

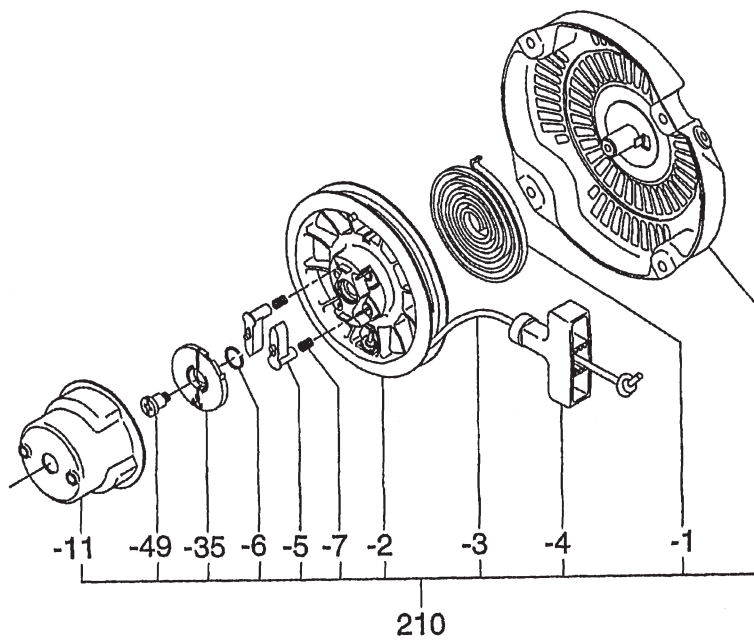


SECTION 6 COOLING and STARTING GROUP

REF.	PART NO.	DESCRIPTION	QTY.	REMARKS	FROM-TO	FIG.
10	277-51201-11	BLOWER HOUSING	1	Yellow		600
20	073-20051-40	LABEL, trademark	1			600
40	011-00600-30	FLANGE BOLT	4			600
60	277-52711-11	BAFFLE 1, case	1		5631~	600
	277-52711-01	BAFFLE 1, case	1		~5630	600
61	277-52702-03	BAFFLE 2, head	1			600
80	001-04061-60	FLANGE BOLT	1			600
	011-00600-20	FLANGE BOLT	1			600
81	011-00600-20	FLANGE BOLT	1			600
220	011-00600-10	FLANGE BOLT	4			600

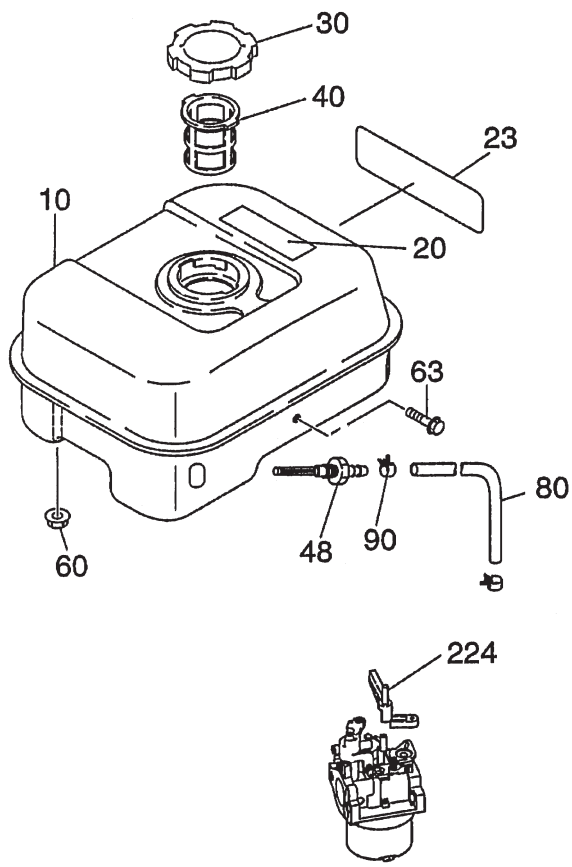
SECTION 6 COOLING and STARTING GROUP

FIG. 610



SECTION 7 FUEL, LUBRICATION GROUP

FIG. 700

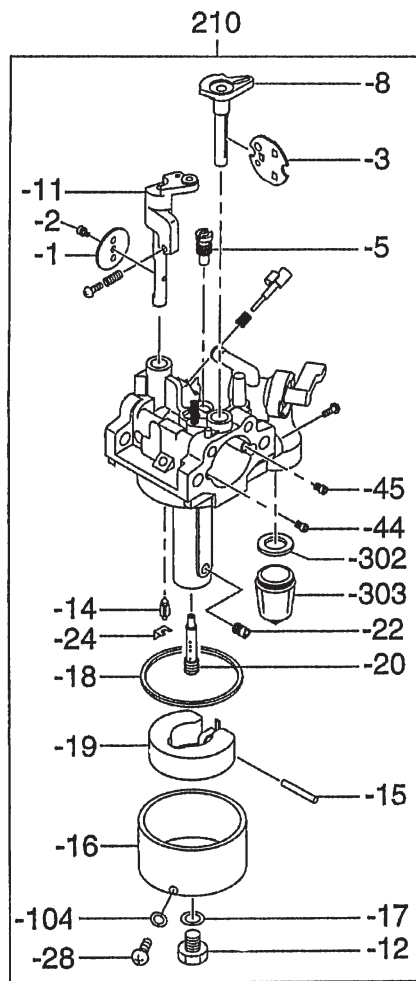


SECTION 7 FUEL, LUBRICATION GROUP

REF.	PART NO.	DESCRIPTION	QTY.	REMARKS	FROM-TO	FIG.
10	277-60101-11	FUEL TANK CAP	1			700
20	073-20051-80	LABEL, warning	1			700
23	277-95101-03	LABEL, model	1			700
30	043-04400-50	FUEL TANK CAP	1			700
40	064-13600-10	FUEL FILTER	1			700
48	050-51200-20	UNION	1			700
60	002-38060-00	FLANGE NUT	2			700
63	011-00601-30	FLANGE BOLT	1			700
80	085-10600-00	RUBBER PIPE	1			700
90	056-11000-30	HOSE CLAMP	2			700
224	277-43801-01	CHOKE LEVER	1			700

SECTION 7 FUEL, LUBRICATION GROUP

FIG. 710

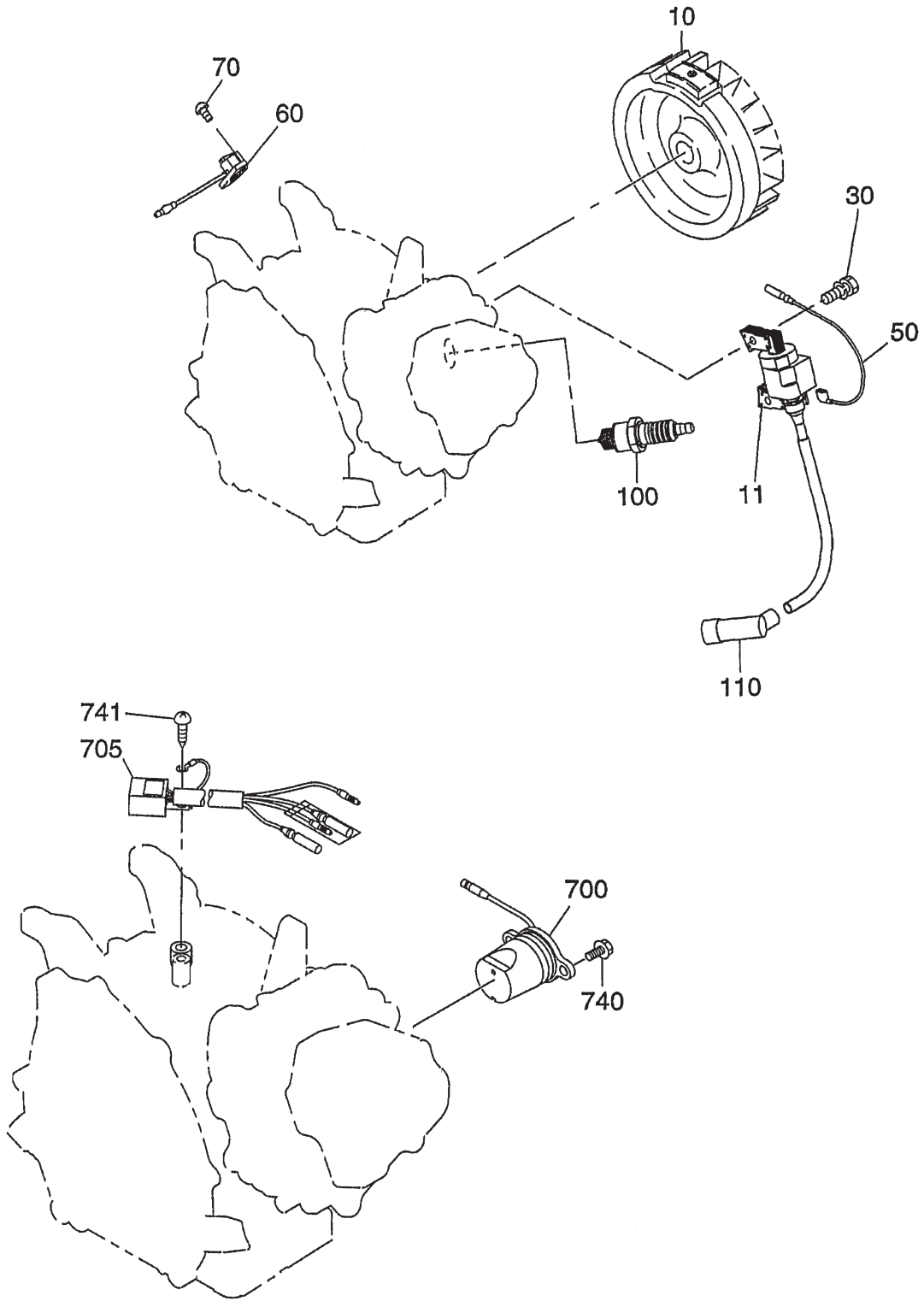


SECTION 7 FUEL, LUBRICATION GROUP

REF.	PART NO.	DESCRIPTION	QTY.	REMARKS	FROM-TO	FIG.
210	277-62301-10	CARBURETOR	1			710
-1	277-62535-08	THROTTLE VALVE	1			710
-2	209-62351-08	SCREW	1			710
-3	277-62525-08	CHOKE VALVE	1			710
-5	246-62420-08	PILOT JET	1			710
-8	277-62520-08	CHOKE LEVER	1			710
-11	277-62530-08	THROTTLE SHAFT	1			710
-12	227-62451-08	BOLT	1			710
-14	277-62500-08	NEEDLE	1			710
-15	277-62515-08	PIN	1			710
-16	277-62506-08	FLOAT BODY	1			710
-17	214-62450-08	PACKING	1			710
-18	214-62540-08	CHAMBER PACKING	1			710
-19	226-62506-08	FLOAT AY	1			710
-20	277-62440-08	MAIN NOZZLE	1			710
-22	277-62402-08	MAIN JET	1			710
-24	226-62701-18	CLIP	1			710
-28	277-62360-08	BOLT	1			710
-44	248-62410-08	AIR JET	1			710
-45	106-62410-08	AIR JET, pilot	1			710
-104	236-62541-08	PACKING	1			710
-302	064-20064-10	PACKING	1			710
-303	064-20078-10	CLIP	1			710

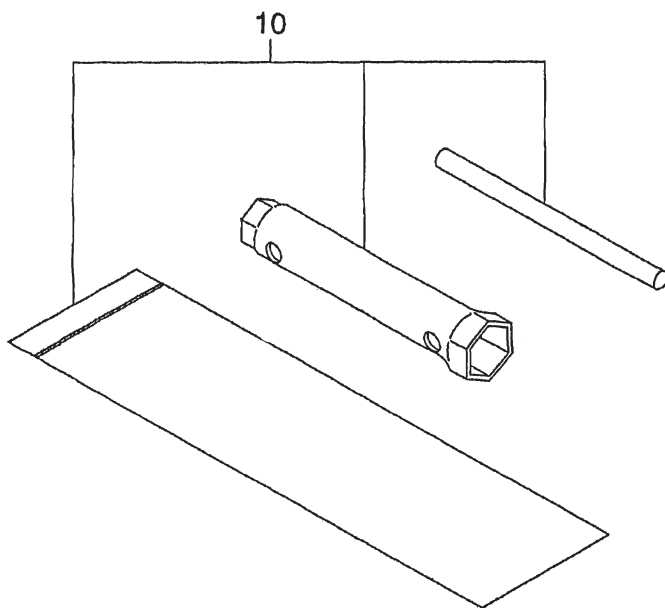
SECTION 8 ELECTRIC DEVICE GROUP

FIG. 800



SECTION 9 ACCESSORY GROUP

FIG. 900



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