

PARTS MANUAL

Models

**EX27
ENGINE**

PUB-EP1679
Rev. 09/08



Industrial Power Products

Robin America, Inc.

905 Telser Road • Lake Zurich, IL 60047 • Phone: 630-350-8200 • Fax: 630-350-8212
e-mail: sales@robinamerica.com • www.subarupower.com

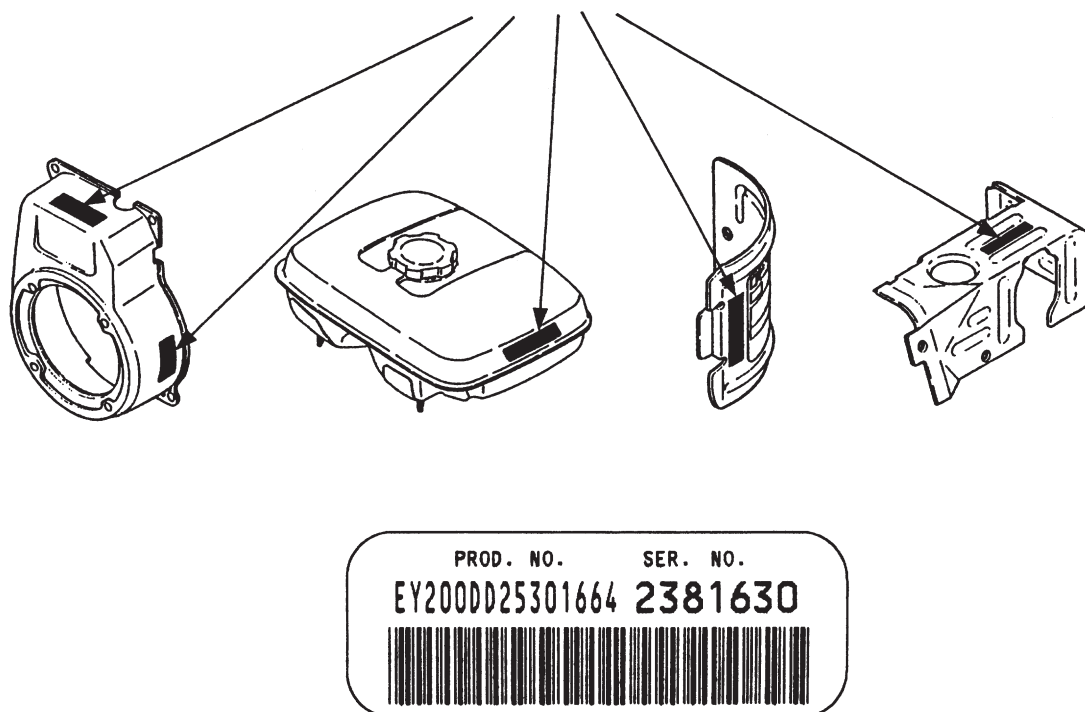
© Copyright 2008 Robin America, Inc.

HOW TO USE THIS MANUAL

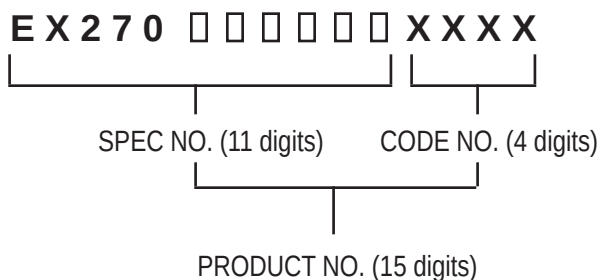
Robin engines are identified by MODEL, SPECIFICATION, and CODE NUMBER. For each model there may be many different versions called specifications. Each specification will be unique in some way. The difference may only be the paint color or it may have a different type of PTO or some other significant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

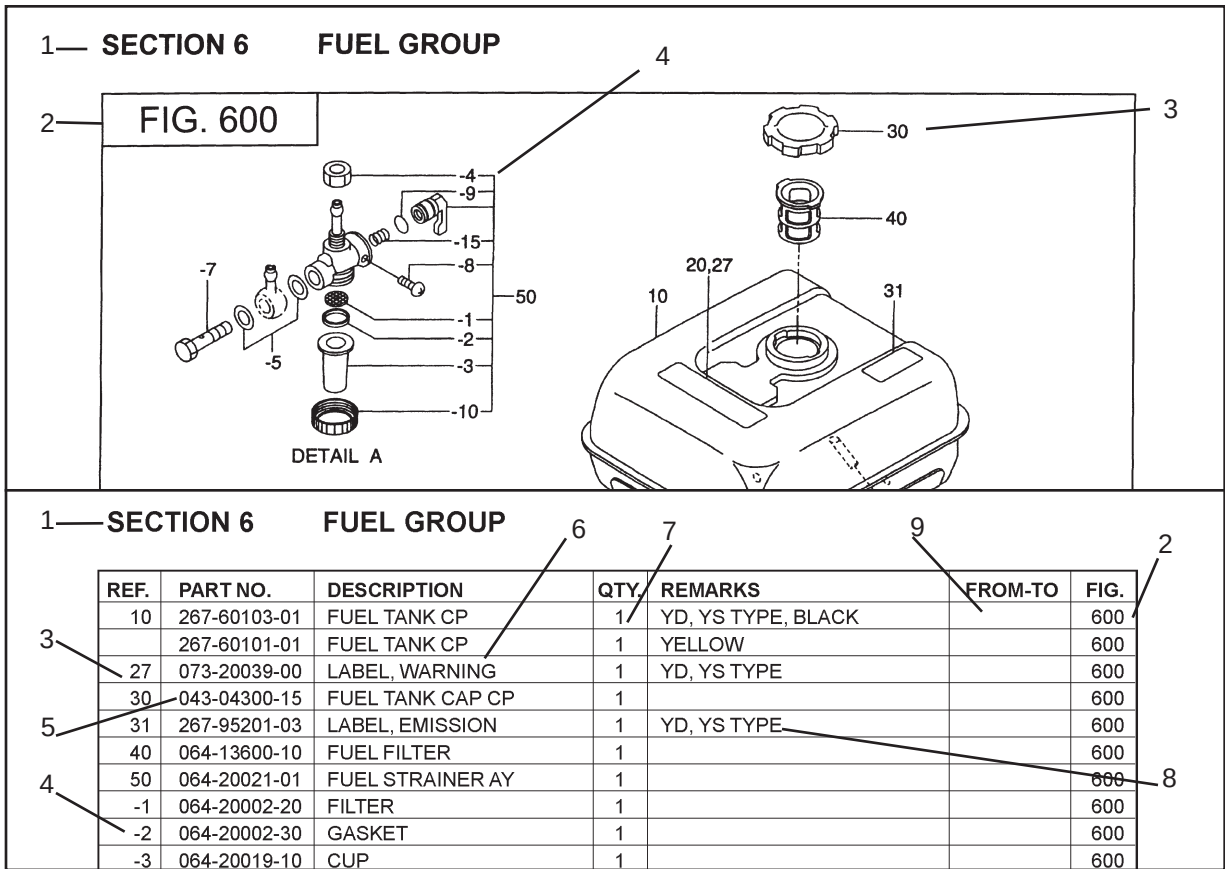
All Robin 4 cycle engines have a Product Number label similar to the label illustrated below.



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



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.

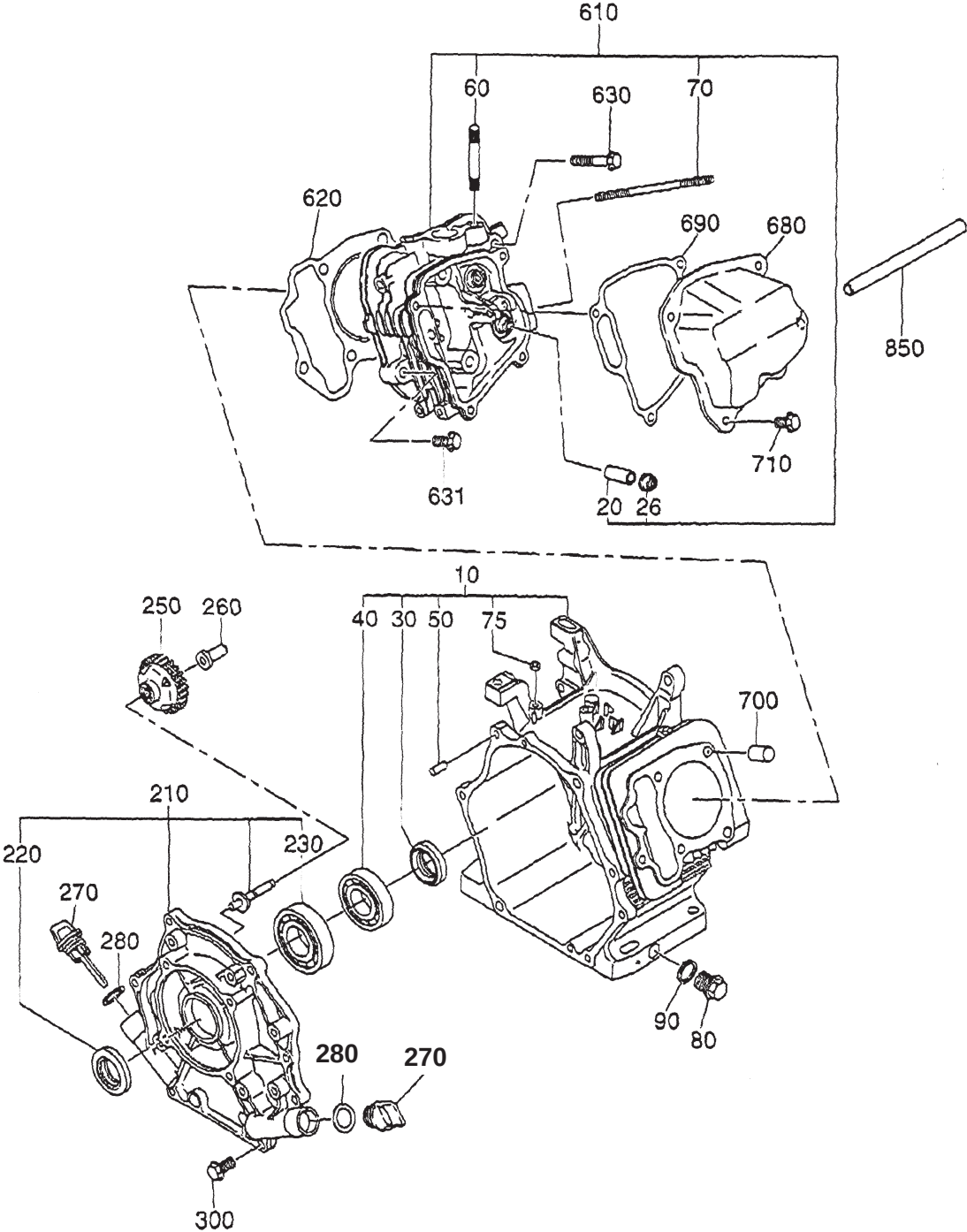
GROUP INDEX

Group Name	Page
CRANKCASE GROUP	6
CRANKSHAFT GROUP	8
INTAKE and EXHAUST GROUP	10
GOVERNOR GROUP	14
COOLING and STARTING GROUP	16
FUEL, LUBRICANT GROUP	18
CARBURETOR GROUP	26
ELECTRIC DEVICE GROUP	38
ACCESSORY GROUP	42

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 CRANKCASE GROUP

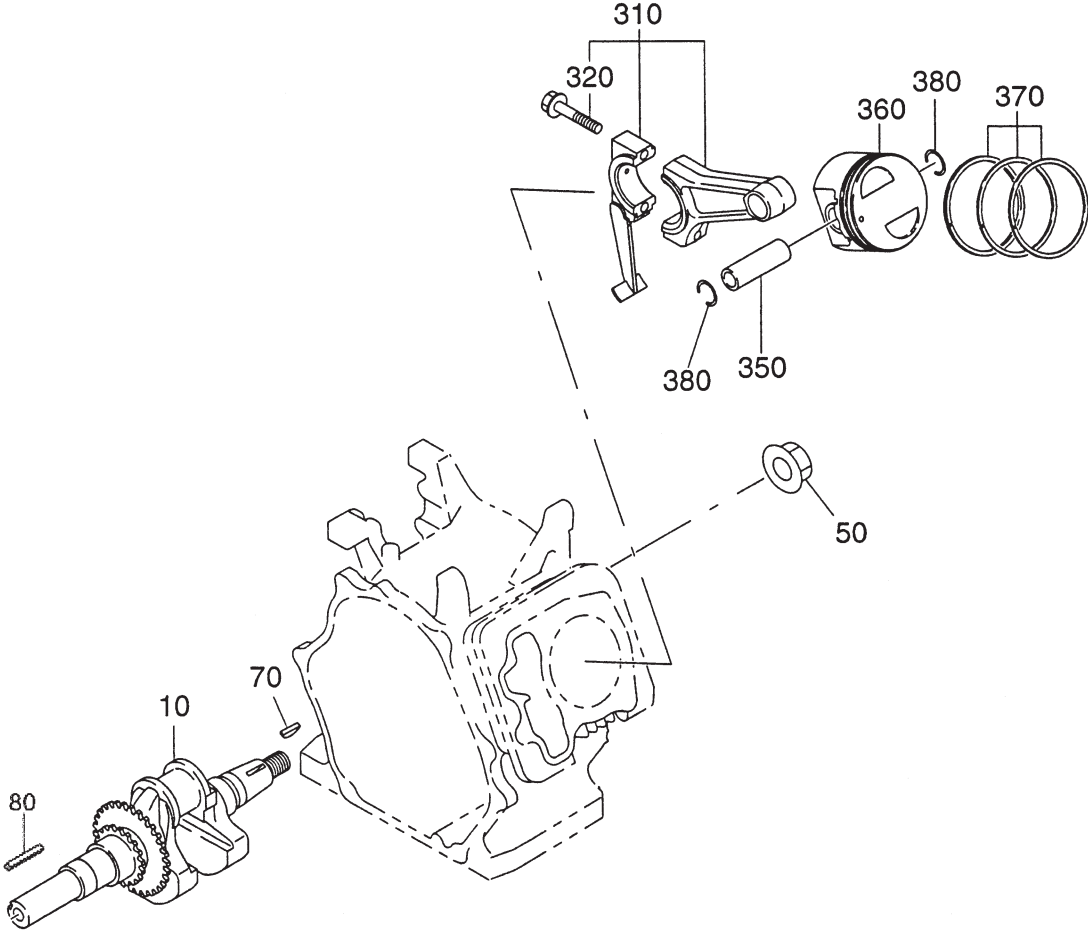
FIG. 100



SECTION 1 CRANKCASE GROUP

REF.	PART NO.	DESCRIPTION	QTY.	REMARKS	FROM-TO	FIG.
10	279-10101-91	Crankcase Cp	1	Std	6951~	100
	279-10101-81	Crankcase Cp	1		~6950	100
10	279-10102-91	Crankcase Cp	1	w/ oil sensor	6951~	100
	279-10102-81	Crankcase Cp	1	w/ oil sensor	~6950	100
10	279-10104-51	Crankcase Cp	1	Balancer Shaft	7092~	100
	279-10104-41	Crankcase Cp	1		6951~7901	100
	279-10104-31	Crankcase Cp	1		~6950	100
20	237-14202-03	Valve Guide	2			100
26	277-16010-01	Stem Seal	1			100
30	044-03001-60	Oil Seal	1			100
40	060-03003-41	Ball Bearing	1			100
46	060-01500-11	Ball Bearing	1		7092~	100
	060-01500-10	Ball Bearing	1		~7091	100
50	277-15011-03	Pipe Knock	2			100
60	010-50802-50	Stud	2	Exhaust		100
70	010-50604-10	Stud	2	Intake		100
75	044-00600-20	Oil Seal	1			100
80	040-11400-30	Plug	1			100
90	021-11400-20	Gasket	1			100
210	279-11002-11	Main Bearing Cover Cp	1	Std		100
210	279-11004-11	Main Bearing Cover Cp	1	Balancer Shaft		100
220	044-03001-60	Oil Seal	1			100
230	060-03003-70	Ball Bearing	1			100
235	060-01500-11	Ball Bearing	1		7092~	100
	060-01500-10	Ball Bearing	1		~7091	100
250	277-45004-J1	Governor Gear Cp	1			100
260	277-41901-03	Governor Sleeve	1			100
270	279-63601-13	Oil Gauge	2			100
280	021-32000-50	Gasket	1			100
300	001-04083-50	Flange Bolt	7			100
610	279-13001-21	Cylinder Head Cp	1			100
620	279-15001-33	Gasket, head	1			100
630	011-00802-40	Flange Bolt	4			100
631	011-00803-10	Flange Bolt	1			100
680	277-15503-01	Rocker Cover Cp	1			100
690	277-16001-13	Gasket, rocker cover	1			100
700	277-15011-03	Pipe Knock	2			100
710	011-00600-20	Flange Bolt	4			100
960	279-99001-27	Gasket Set	1			100

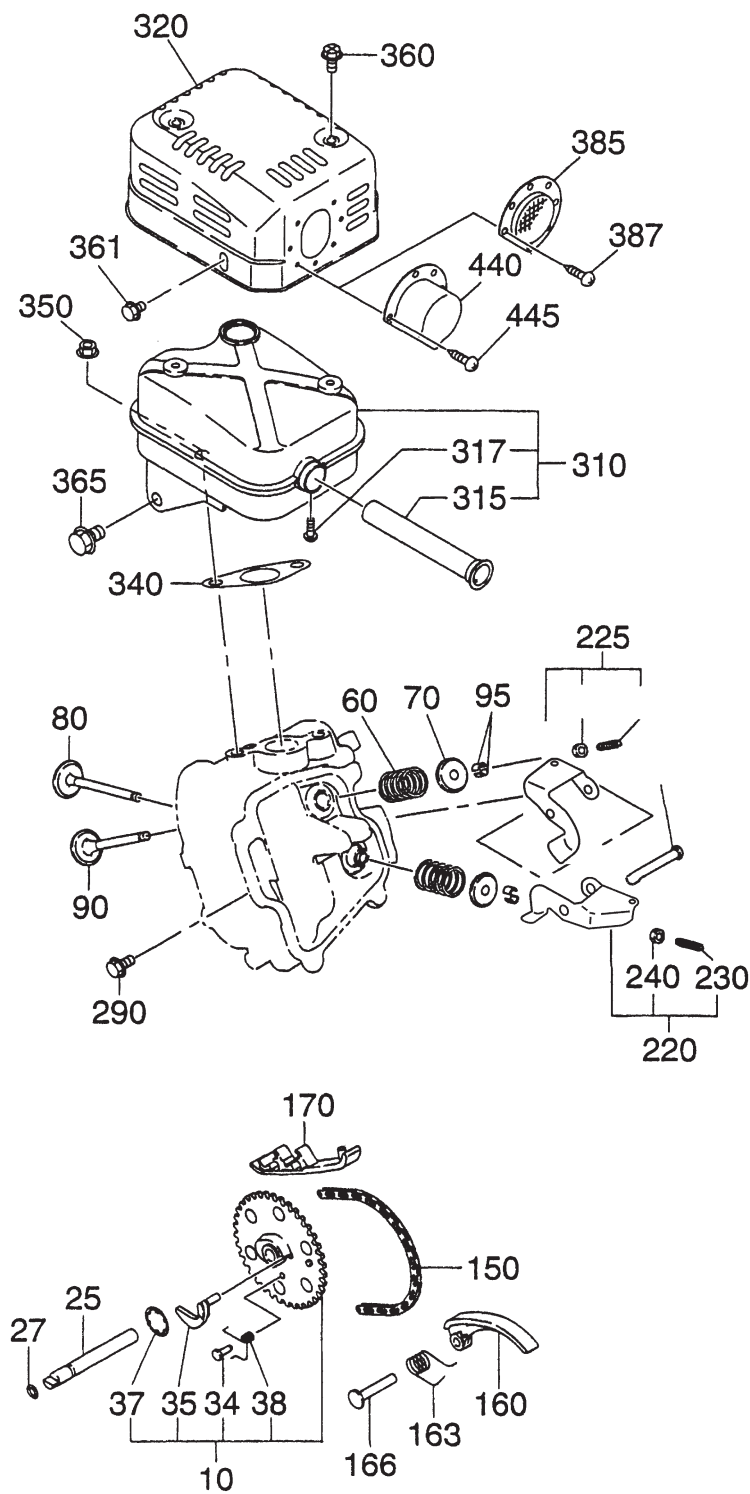
FIG. 200



CRANKSHAFT GROUP

[illegible]

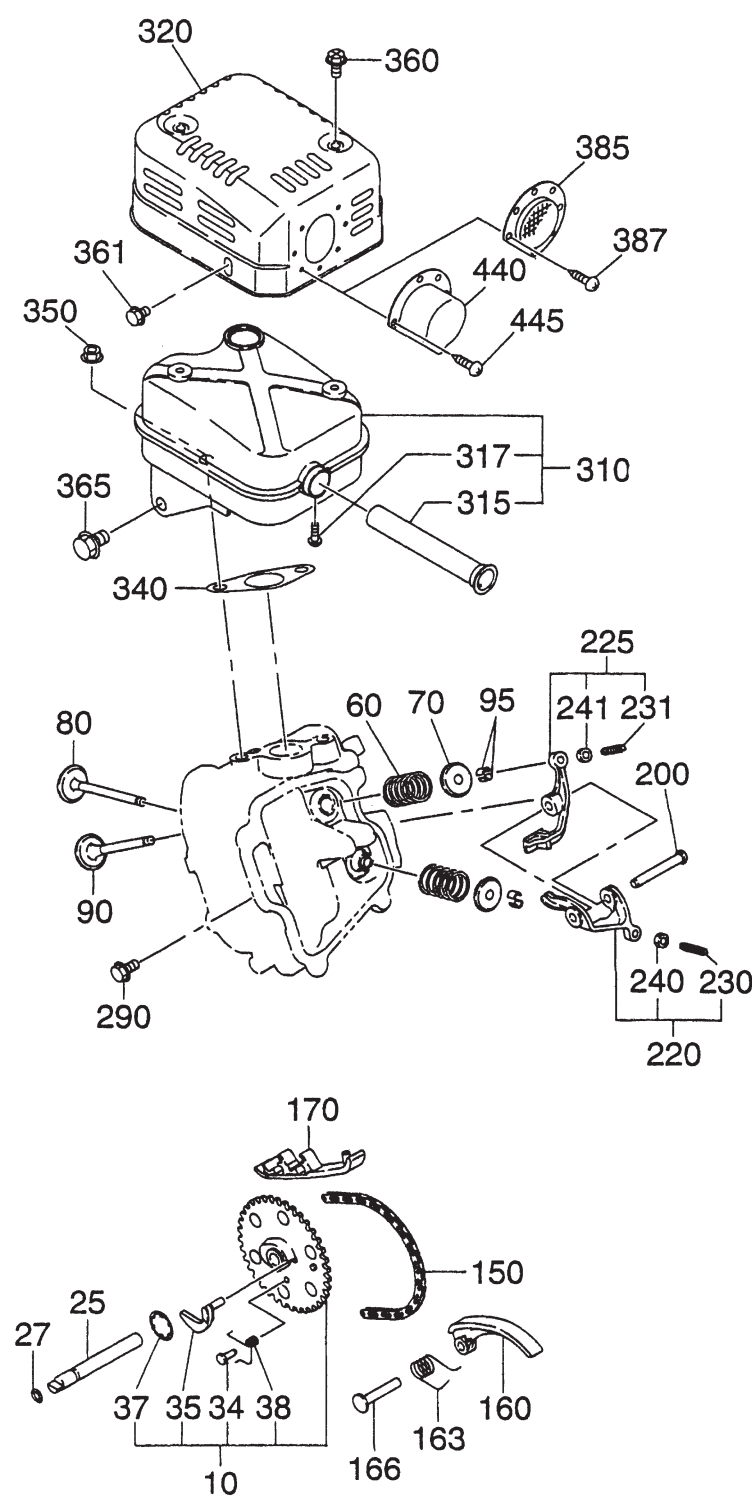
FIG. 300



SECTION 3 INTAKE and EXHAUST GROUP - NEW STYLE

REF.	PART NO.	DESCRIPTION	QTY.	REMARKS	FROM-TO	FIG.
10	279-31601-01	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	279-36401-03	Release Lever	1			300
37	277-36501-03	Clip	1			300
38	227-38701-03	Return Spring	1			300
60	279-33601-03	Valve Spring	2			300
70	269-33701-03	Spring Retainer	2			300
80	279-33401-H3	Intake Valve	1			300
90	279-33501-H3	Exhaust Valve	1			300
95	132-10KA0-31	Collet Valve	4			300
150	279-35601-11	Timing Chain	1	100 link		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	277-35002-01	Pin, rocker cp	1			300
202	003-13050-00	Clip	1			300
220	277-36201-00	Rocker Arm Ay, intake	1			300
225	277-36202-00	Rocker Arm Ay, exhaust	1			300
230	014-90500-20	Adjust Screw	1			300
231	014-90500-20	Adjust Screw	1			300
240	017-00500-30	Nut	1			300
241	017-00500-30	Nut	1			300
290	011-00600-20	Flange Bolt	1			300
310	279-30101-L1	Muffler Cp	1		6972~	300
	279-30101-K1	Muffler Cp	1		~6971	300
310	279-30111-L1	Muffler Cp	1	DE		300
315	279-37601-01	Spark Arrestor Cp	1			300
317	015-00400-60	Tapping Screw	1			300
320	279-34201-21	Muffler Cover Cp	1		7031~	300
	279-34201-11	Muffler Cover Cp	1		~7030	300
340	277-35201-13	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	011-00803-20	Flange Bolt	1			300
385	277-37203-H1	Screen	1			300
387	015-00400-60	Tapping Screw	2			300
440	277-37001-H1	Deflector Cp	1			300
540	279-32902-J1	Insulator Cp	1			300
560	279-35902-J3	Gasket 1, insulator	1			300
570	002-38060-00	Flange Nut	2			300
580	001-04062-00	Flange Bolt	1			300

FIG. 300



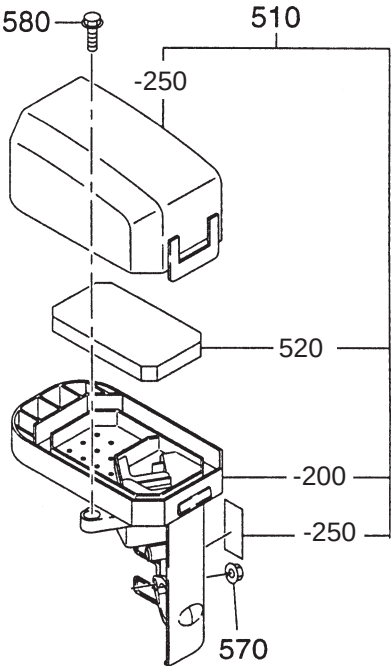
SECTION 3 INTAKE and EXHAUST GROUP - OLD STYLE

REF.	PART NO.	DESCRIPTION	QTY.	REMARKS	FROM-TO	FIG.
10	279-31601-01	Camshaft Cp	1		~2099999	300
25	277-35101-03	Pin, camshaft	1		~2099999	300
27	024-00600-10	O ring	1		~2099999	300
34	277-38601-03	Pin, spring	1		~2099999	300
35	279-36401-03	Release Lever	1		~2099999	300
37	277-36501-03	Clip	1		~2099999	300
38	277-38701-03	Return Spring	1		~2099999	300
60	279-33601-03	Valve Spring	2		~2099999	300
70	269-33701-03	Retainer Valve Spring	2		~2099999	300
80	279-33401-13	Intake Valve	1		~2099999	300
90	279-33501-13	Exhaust Valve	1		~2099999	300
95	132-10KA0-31	Collet Valve	4		~2099999	300
150	279-35601-01	Timing Chain Cp	1		~2099999	300
160	277-36911-03	Tentioner	1		~2099999	300
163	277-37101-03	Spring, tentioner	1		~2099999	300
166	277-36902-03	PIN, tentioner	1		~2099999	300
170	277-36913-13	Chain Guide	1		~2099999	300
200	277-35001-23	Pin, rocker	1		~2099999	300
220	277-36101-00	Rocker Arm Ay, intake	1		~2099999	300
225	277-36102-00	Rocker Arm Ay, exhaust	1		~2099999	300
230	014-90500-10	Adjust Screw	1		~2099999	300
231	014-90500-10	Adjust Screw	1		~2099999	300
240	017-00500-20	Nut	1		~2099999	300
241	017-00500-20	Nut	1		~2099999	300
290	011-00600-20	Flange Bolt	1		~2099999	300
310	279-30101-21	Muffler Cp	1		~2099999	300
	279-30111-01	Muffler Cp	1	w/ spark arrestor	~2099999	300
315	279-37601-01	Spark Arrestor	1		~2099999	300
317	015-00400-60	Tapping Screw	1		~2099999	300
320	279-34201-11	Muffler Cover Cp	1		~2099999	300
340	277-35201-03	Gasket, muffler	1		~2099999	300
350	980-20082-80	Flange Nut	2		~2099999	300
360	015-20600-90	Tapping Bolt	2		~2099999	300
361	011-00600-10	Flang Bolt	1		~2099999	300
365	011-00801-50	Flange Bolt	1		~2099999	300
385	277-37203-01	Screen Cp	1		~2099999	300
387	015-00400-60	Tapping Screw	2		~2099999	300
440	277-37001-03	Deflector	1		~2099999	300
445	015-00400-60	Tapping Screw	2		~2099999	300
570	002-38060-00	Flange Nut	2		~2099999	300
580	011-00600-50	Flange Nut	1		~2099999	300

FIG. 310

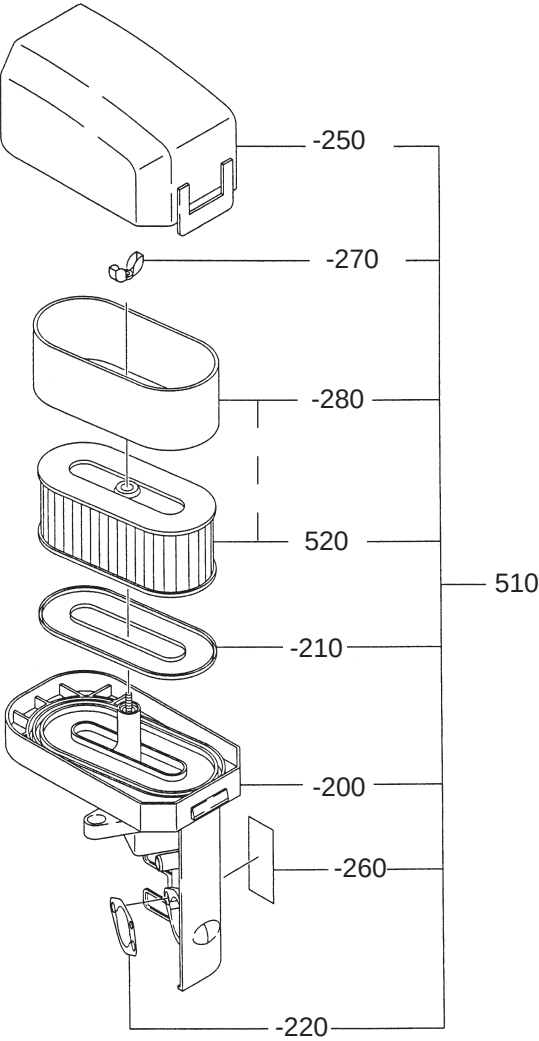
A

Foam



B

Dual Element

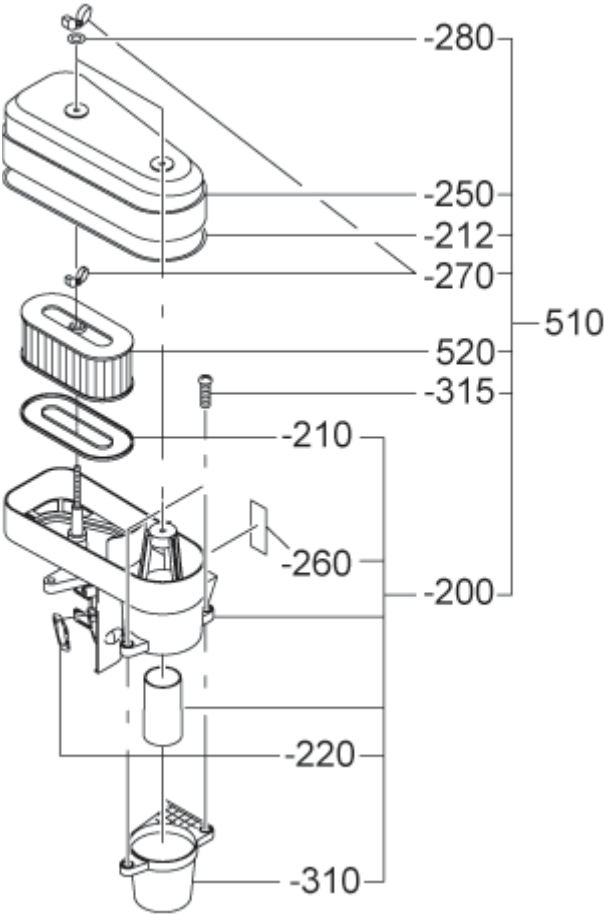


SECTION 3 INTAKE and EXHAUST GROUP

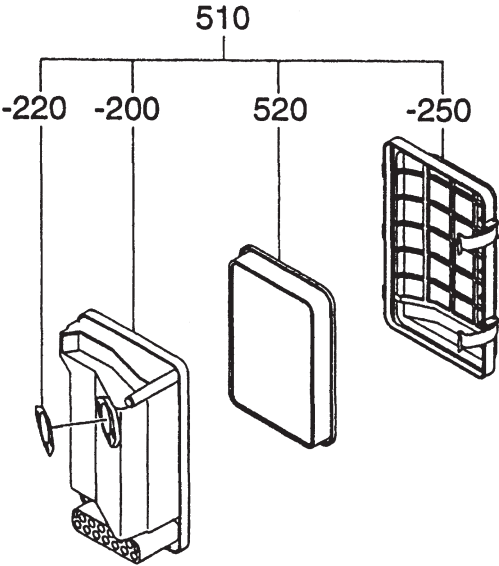
[illegible]

FIG. 320

C Cyclone Pre-cleaner



D Low Profile

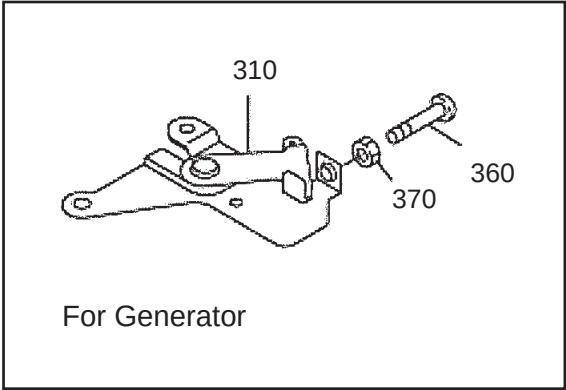
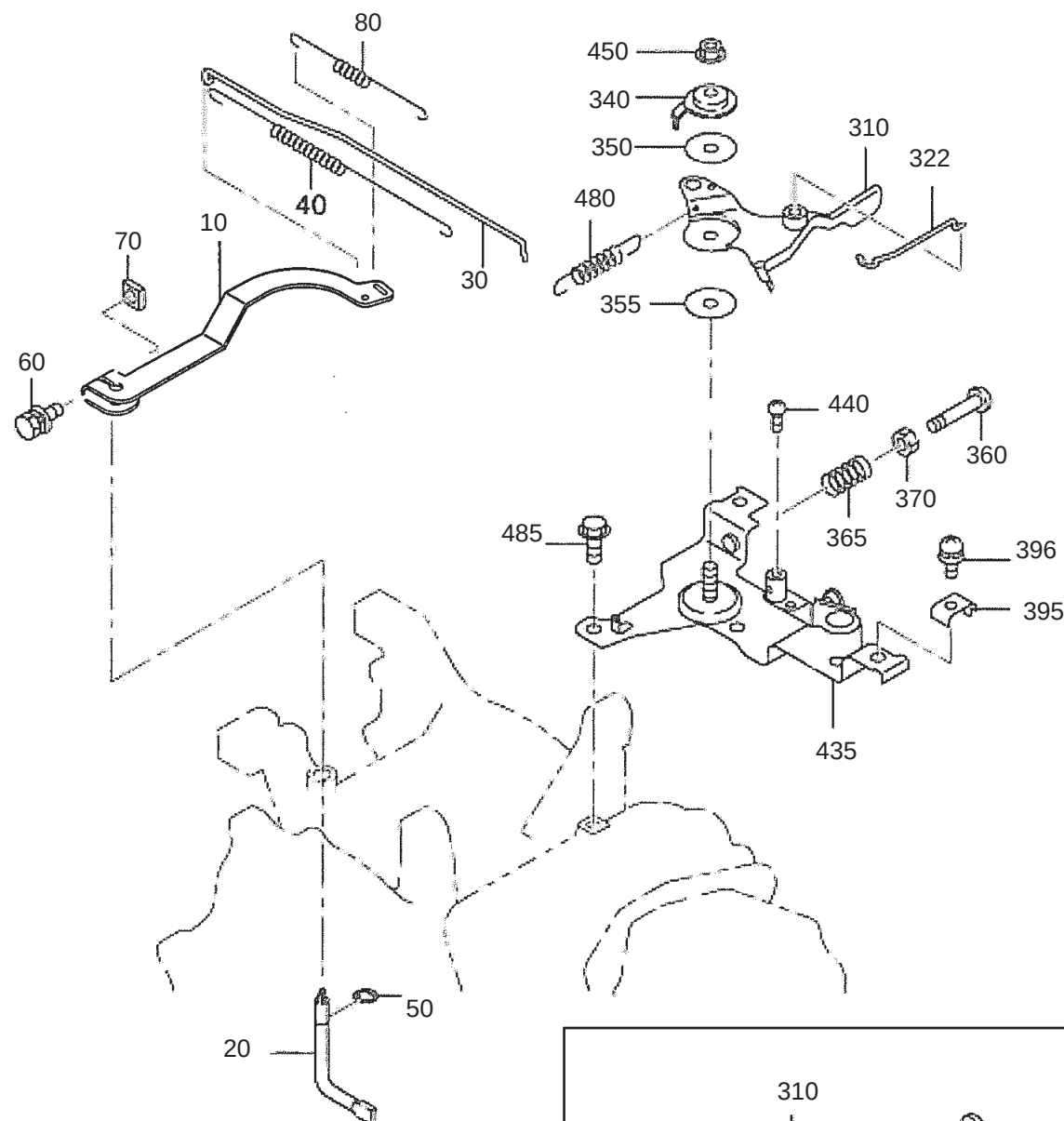


SECTION 3 INTAKE and EXHAUST GROUP

[illegible]

SECTION 4 GOVERNOR GROUP - NEW STYLE

FIG. 400



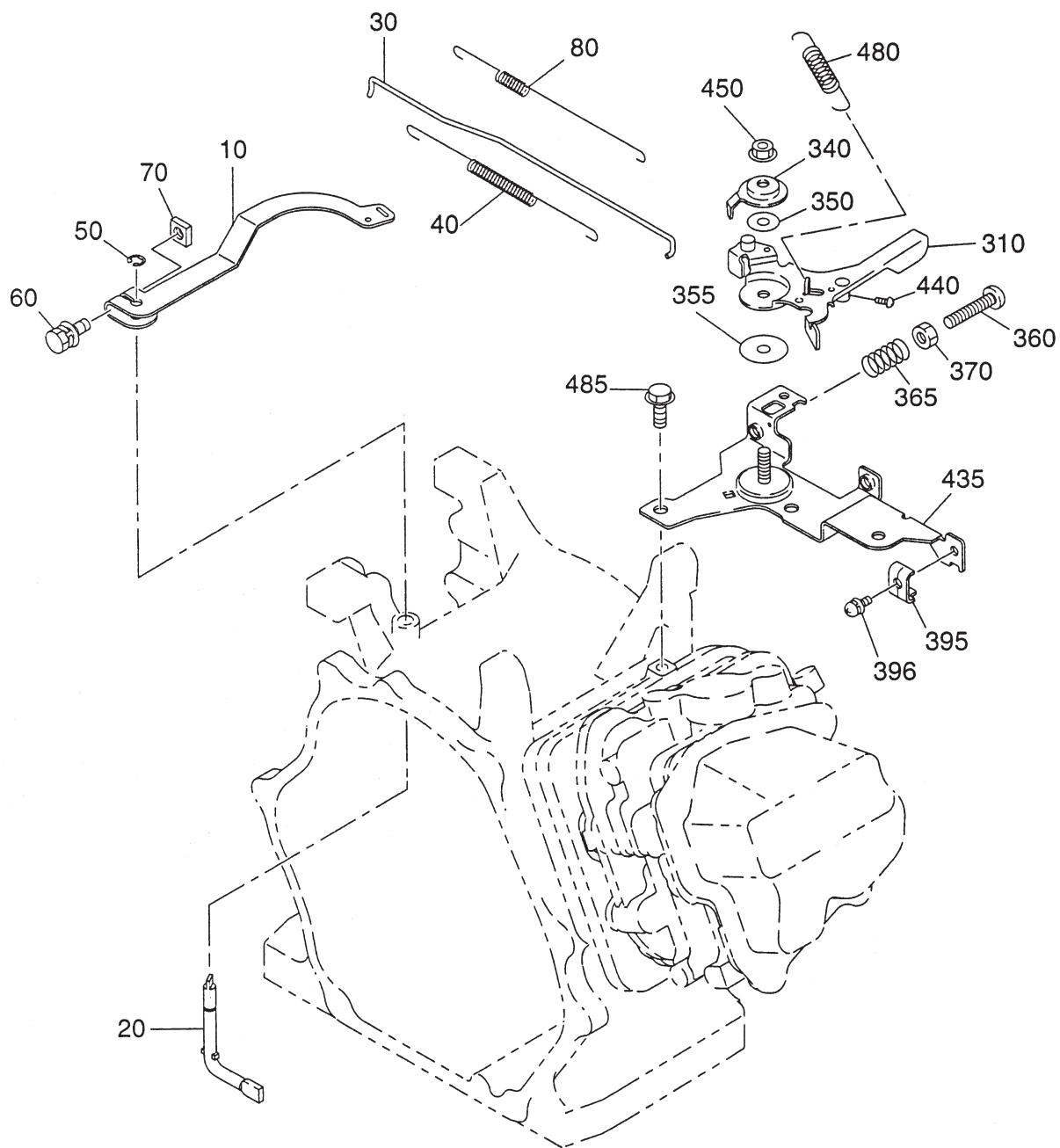
SECTION 4

GOVERNOR GROUP - NEW STYLE

[illegible]

SECTION 4 GOVERNOR GROUP - OLD STYLE

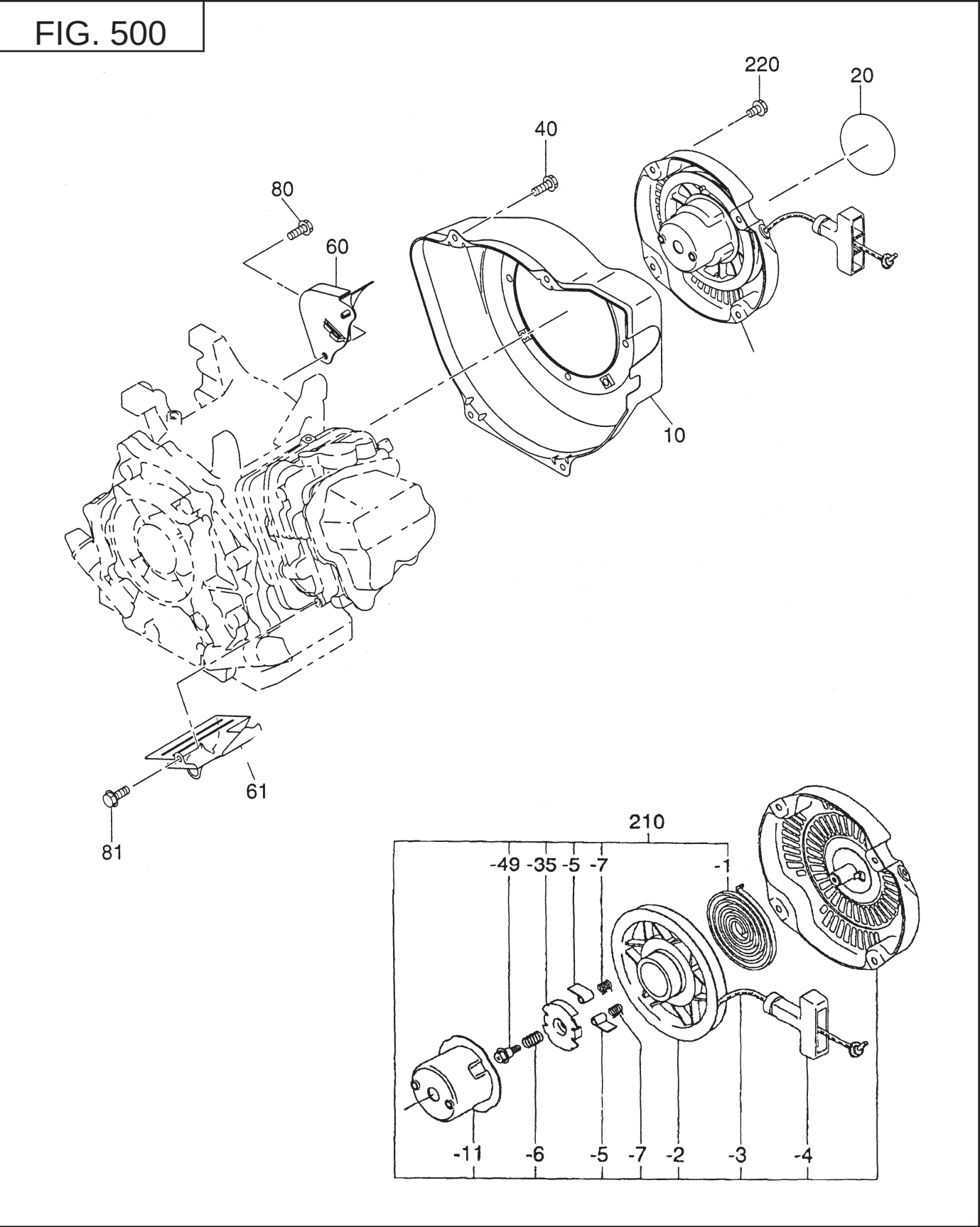
FIG. 400



SECTION 4 GOVERNOR GROUP - OLD STYLE

[illegible]

FIG. 500

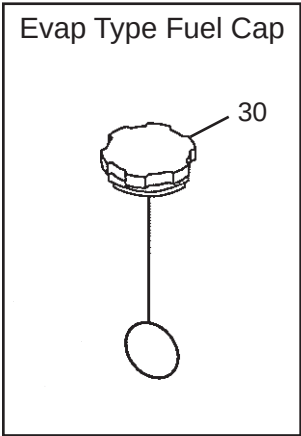
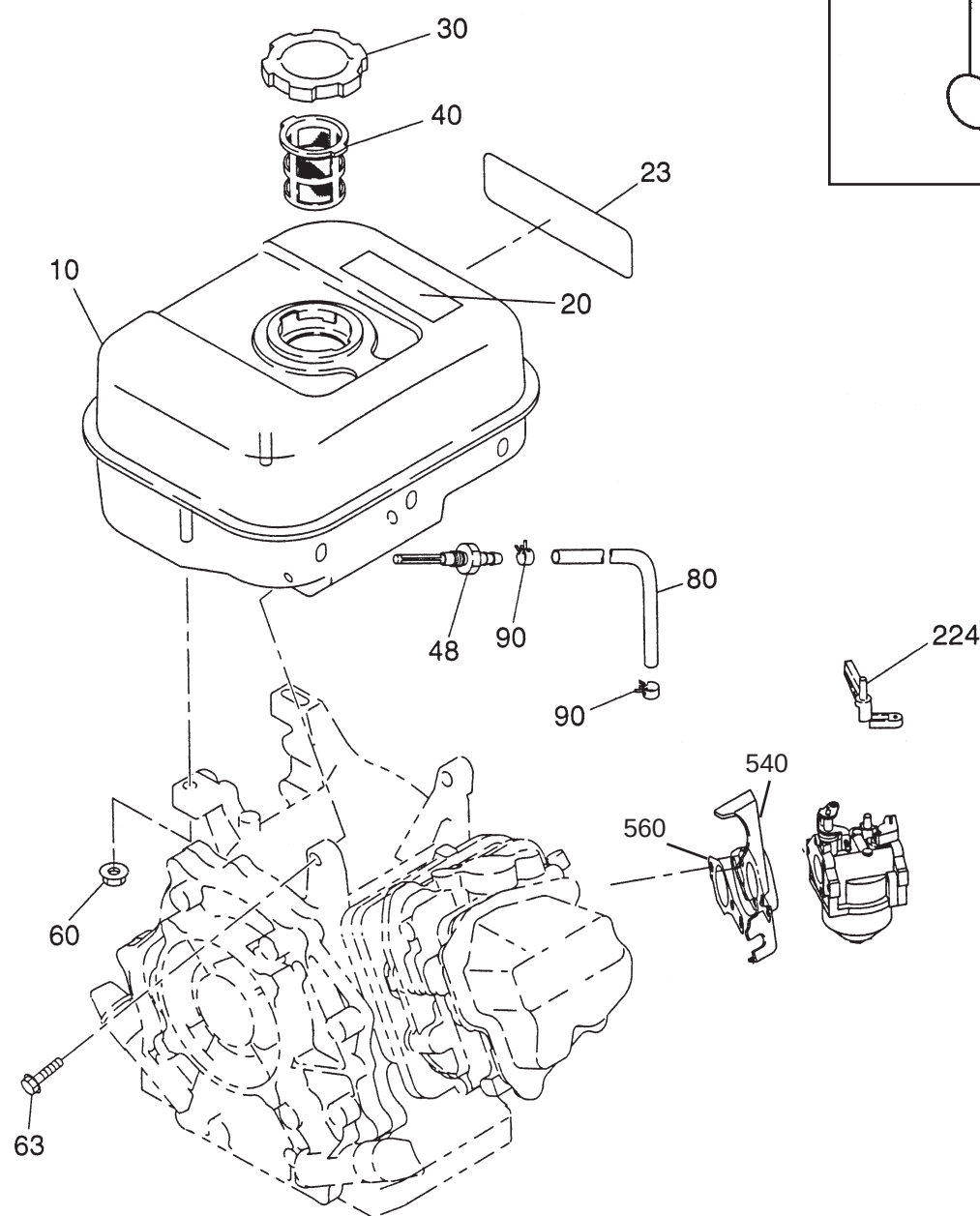


SECTION 5

COOLING and STARTING GROUP

[illegible]

FIG. 600

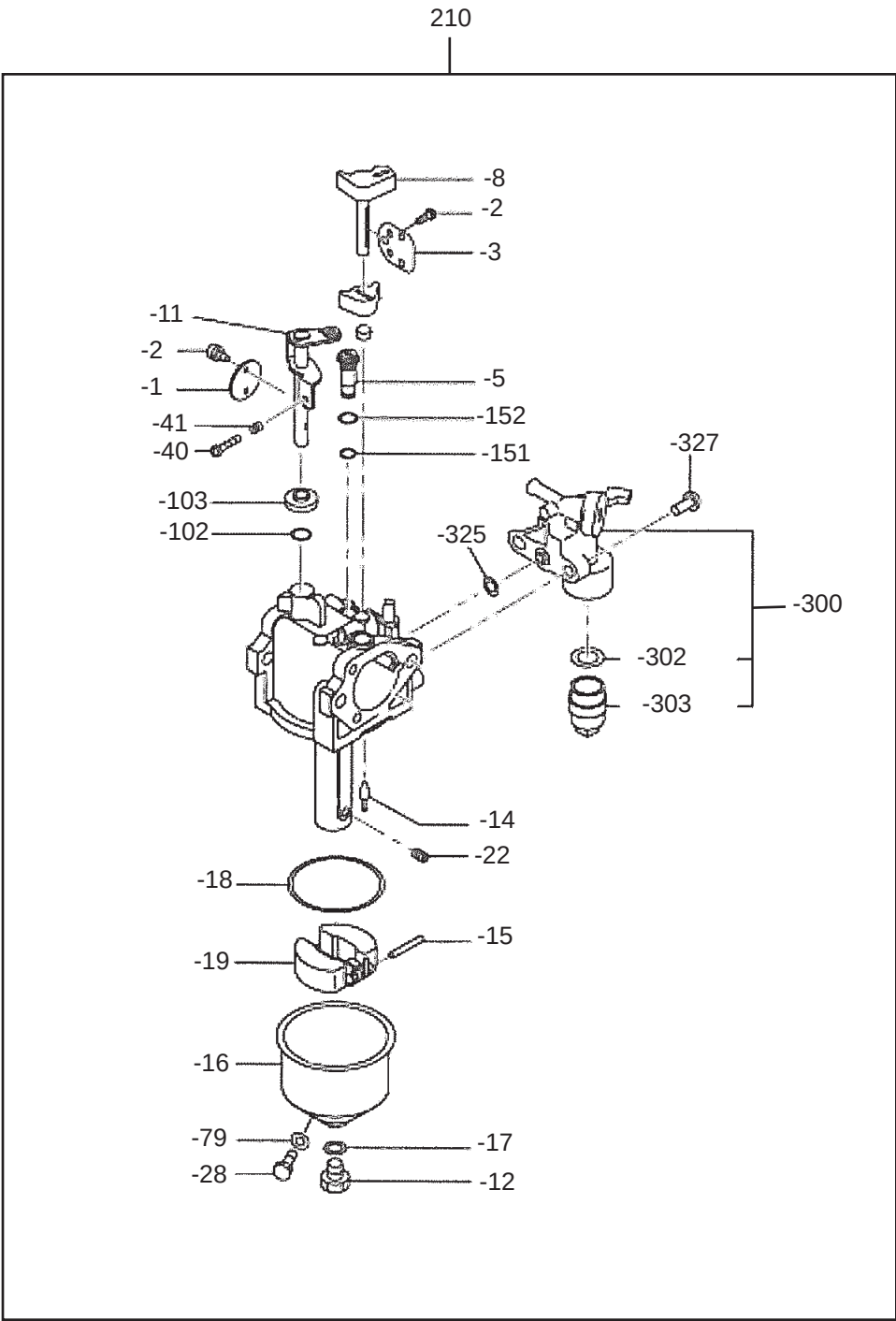


SECTION 6

FUEL, LUBRICATION GROUP

[illegible]

FIG. 610

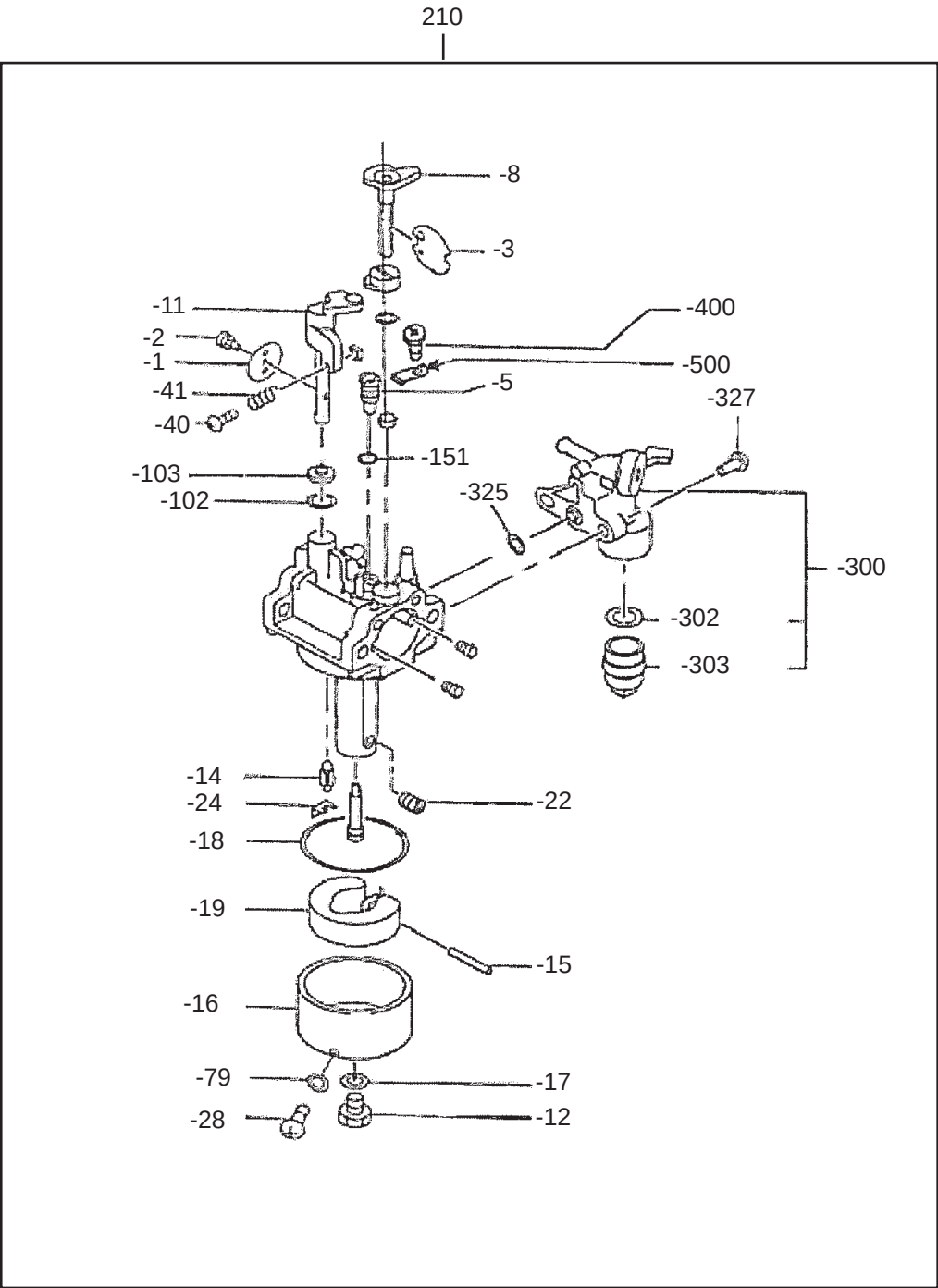


SECTION 6

CARBURETOR GROUP - FOAM, TEIKEI

[illegible]

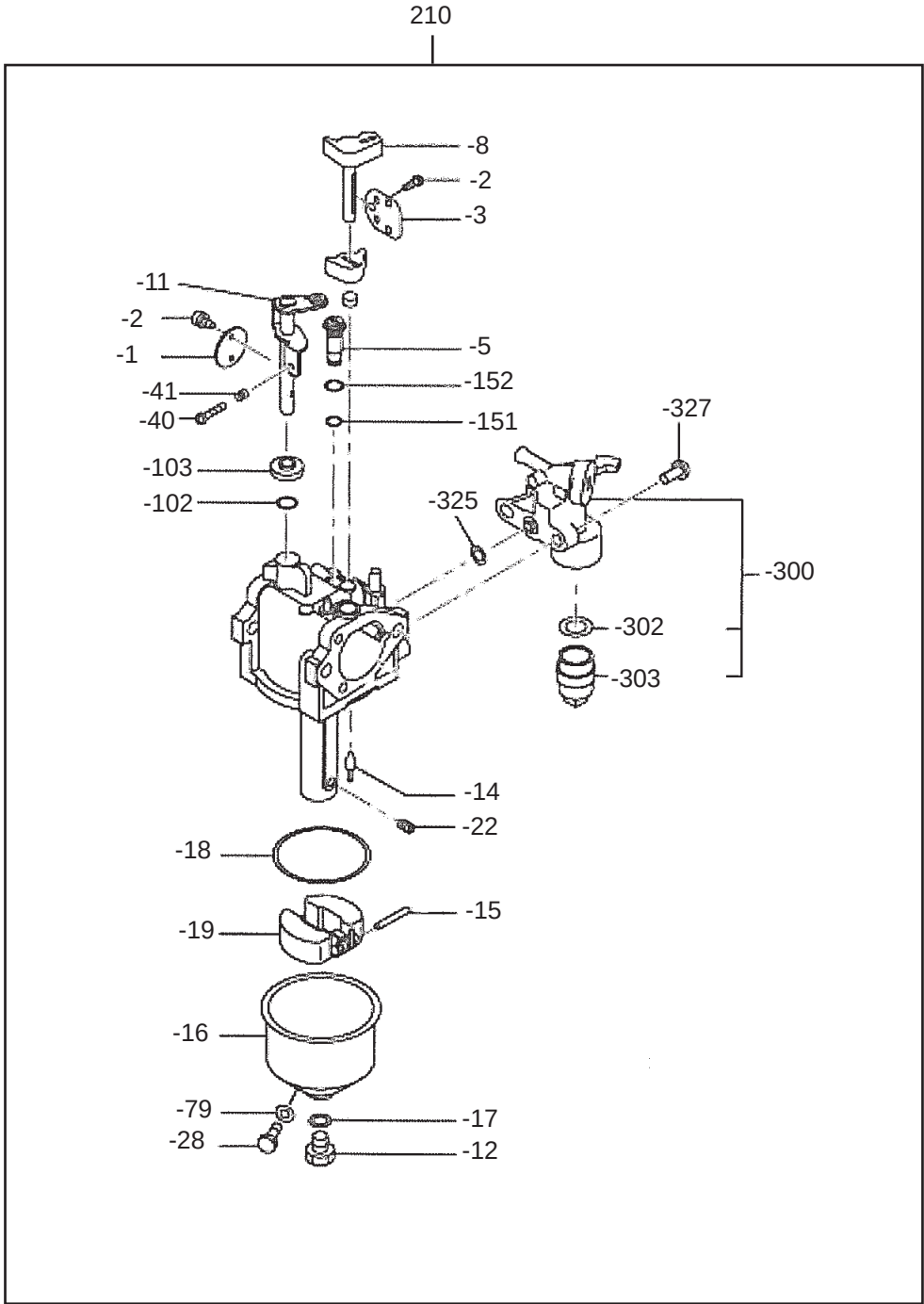
FIG. 620



SECTION 6 CARBURETOR GROUP - FOAM, MIKUNI

[illegible]

FIG. 630

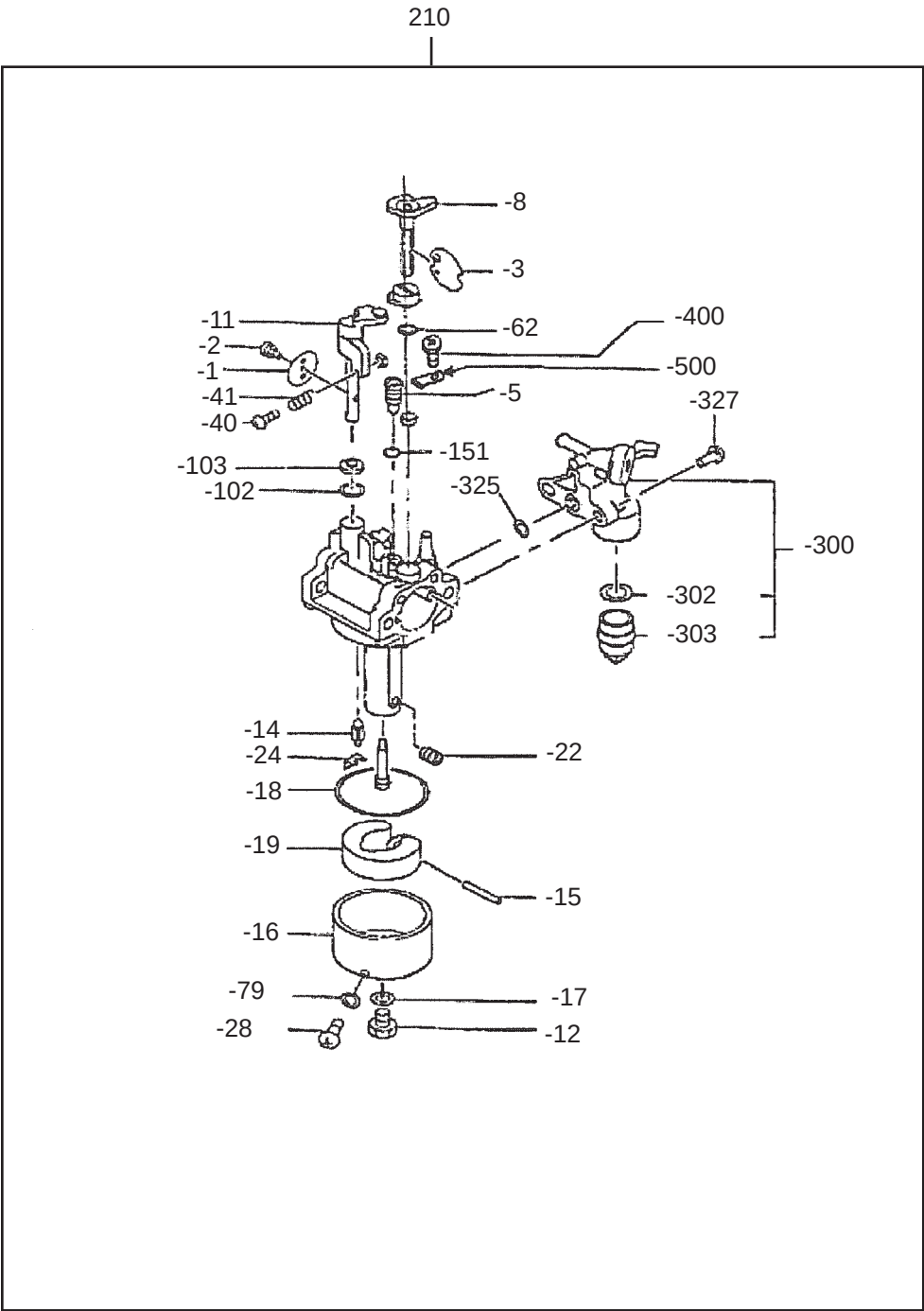


SECTION 6

CARBURETOR GROUP - DUAL ELEMENT, TEIKEI

[illegible]

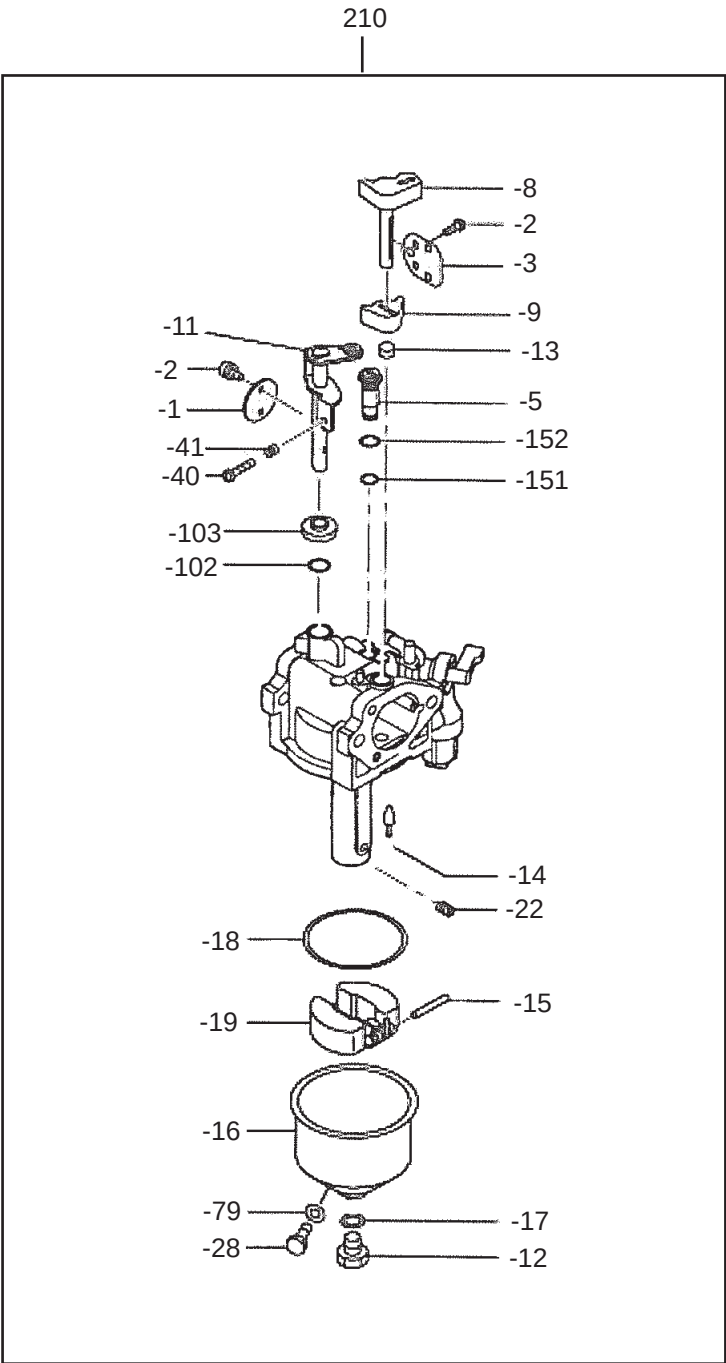
FIG. 640



SECTION 6 CARBURETOR GROUP - DUAL, PRE-CLEANER, MIKUNI

[illegible]

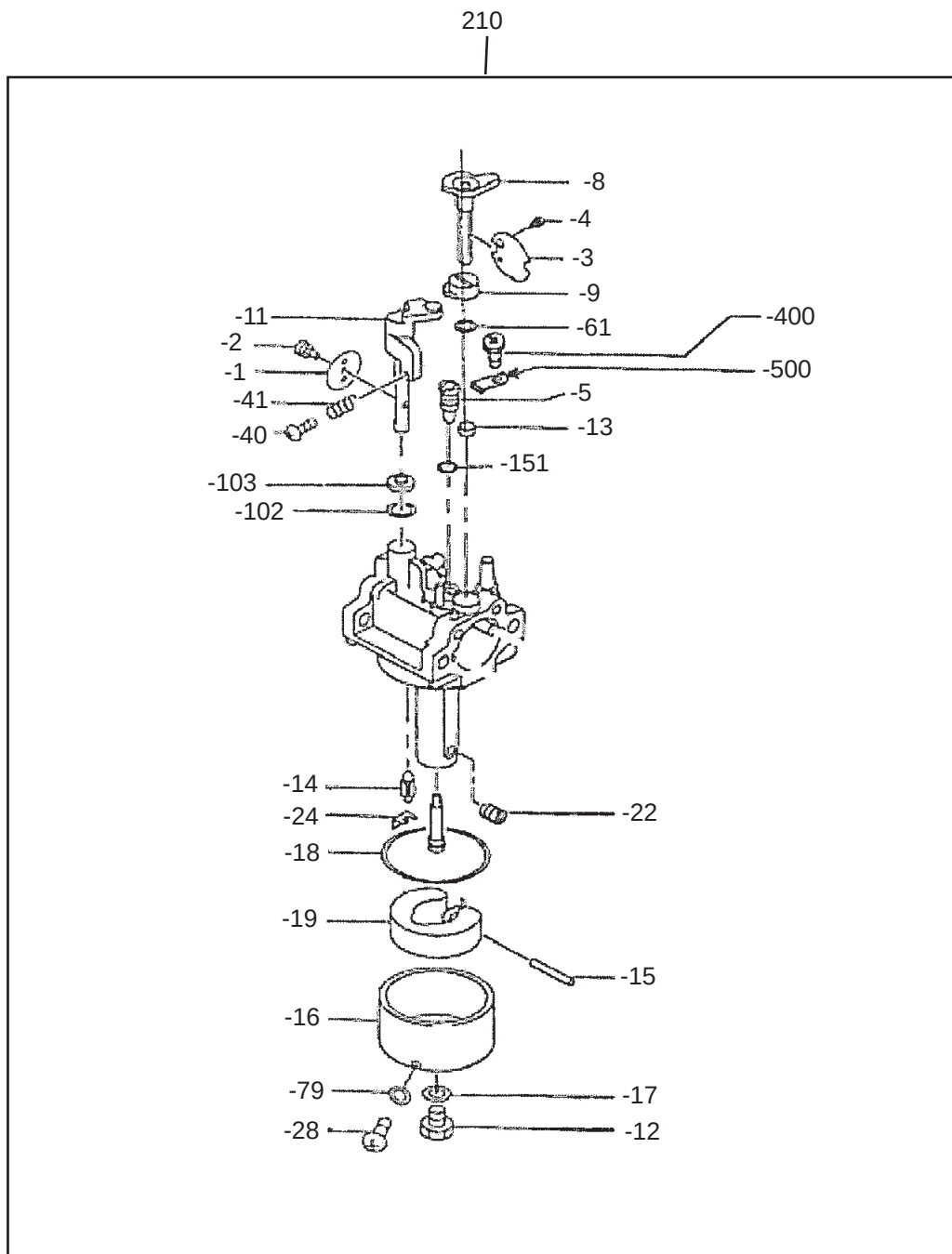
FIG. 650



SECTION 6 CARBURETOR GROUP - LOW PROFILE, TEIKEI

[illegible]

FIG. 660

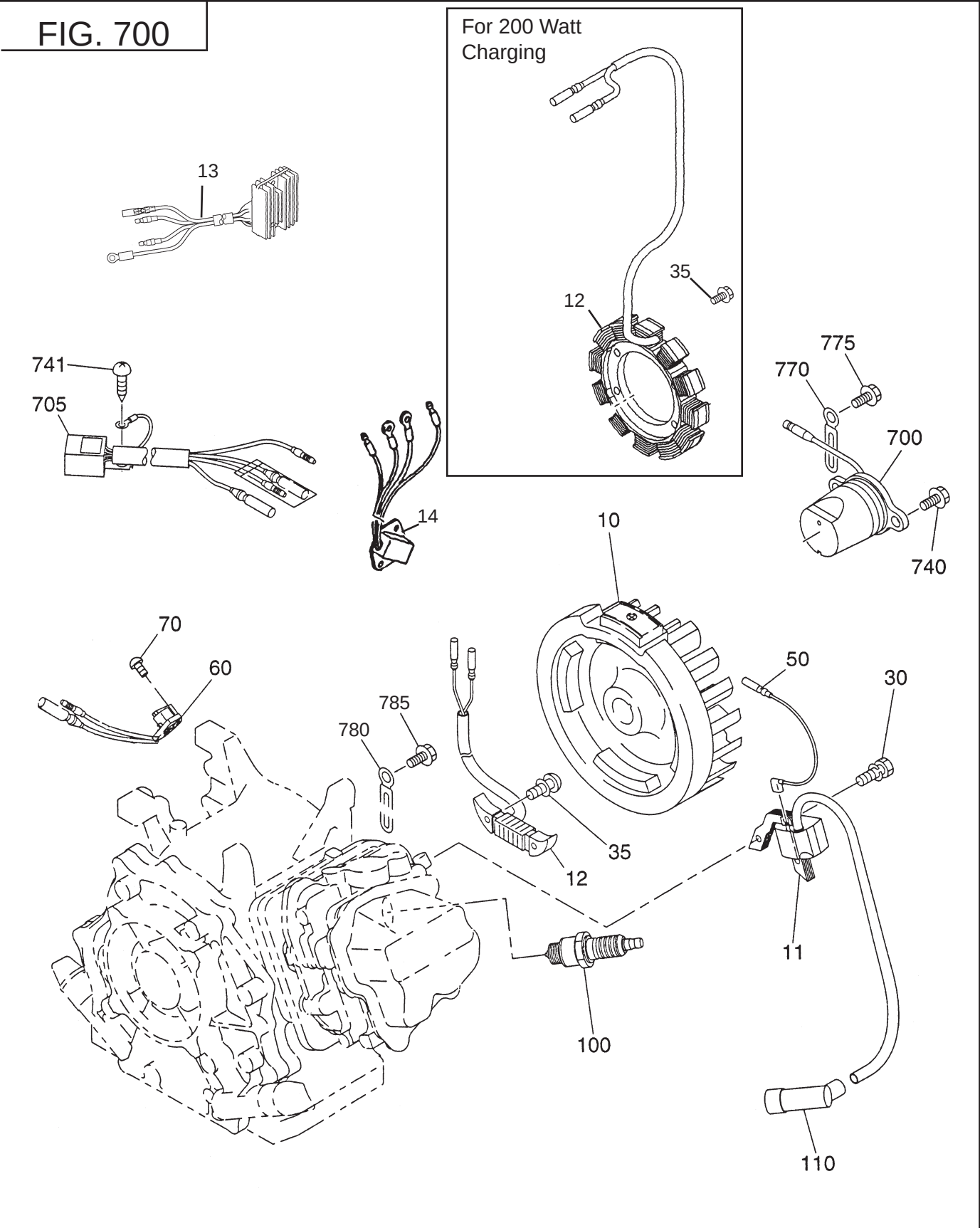


SECTION 6 CARBURETOR GROUP - LOW PROFILE, MIKUNI

[illegible]

SECTION 7 ELECTRIC DEVICE GROUP

FIG. 700

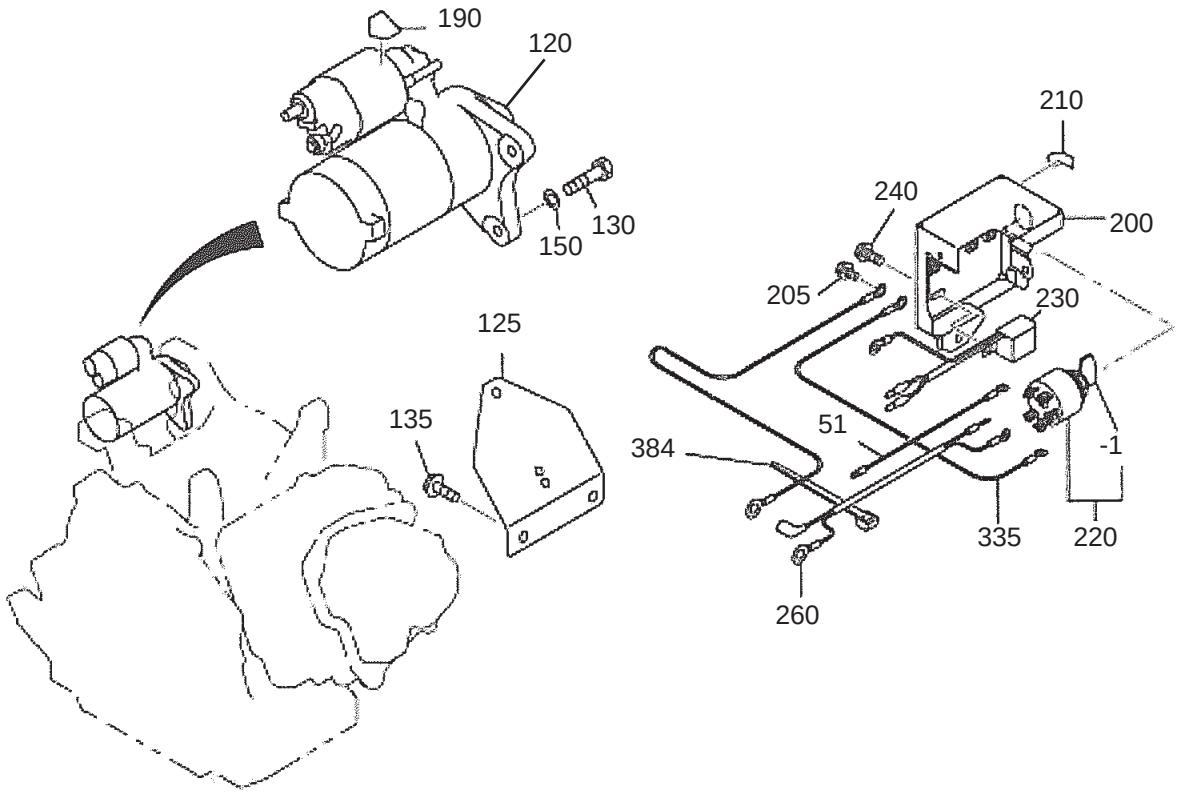


SECTION 7

ELECTRIC DEVICE GROUP

[illegible]

FIG. 710

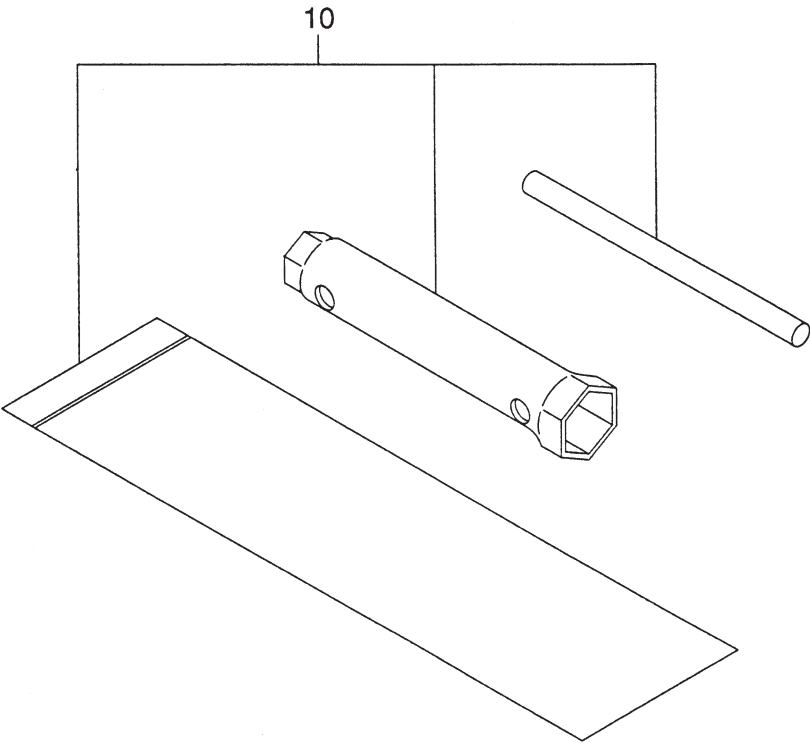


SECTION 7

ELECTRIC DEVICE GROUP - CONTROL BOX

[illegible]

FIG. 900



SECTION 9 ACCESSORY GROUP

[illegible]

PRINTED IN THE USA

Robin America, Inc

905 Telser Road • Lake Zurich, IL 60047

Phone: 847-540-7300 • Fax: 847-438-5012

e-mail: sales@subarupower.com • www.subarupower.com