

# **PARTS MANUAL**

**Models**

**EX27**

**ENGINE**

PUB-EP1679  
Rev. 07/05

# **Robin America, Inc.**

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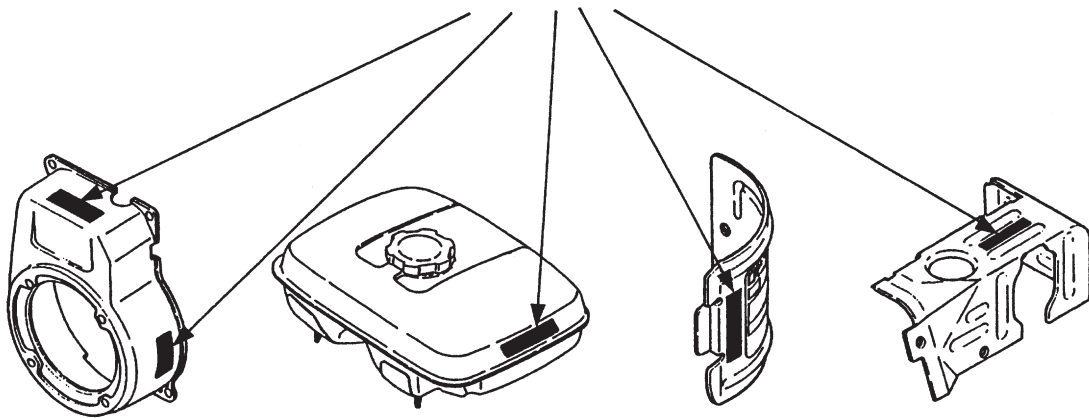
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## HOW TO USE THIS MANUAL

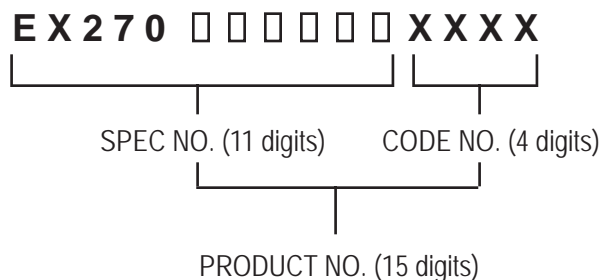
Robin engines are identified by MODEL, SPECIFICATION, and CODE NUMBER. For each model there may be many different versions called specifications. Each specification will be unique in some way. The difference may only be the paint color or it may have a different type of PTO or some other significant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

1— SECTION 6 FUEL GROUP

2— FIG. 600

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20,27

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31

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DETAIL A

1—SECTION 6 FUEL GROUP

REF.	PART NO.	DESCRIPTION	QTY.	REMARKS	FROM-TO	FIG.
10	267-60103-01	FUEL TANK CP	1	YD, YS TYPE, BLACK		600
27	267-60101-01	FUEL TANK CP	1	YELLOW		600
27	073-20039-00	LABEL, WARNING	1	YD, YS TYPE		600
30	043-04300-15	FUEL TANK CAP CP	1			600
31	267-95201-03	LABEL, EMISSION	1	YD, YS TYPE		600
40	064-13600-10	FUEL FILTER	1			600
50	064-20021-01	FUEL STRAINER AY	1			600
-1	064-20002-20	FILTER	1			600
-2	064-20002-30	GASKET	1			600
-3	064-20019-10	CUP	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.

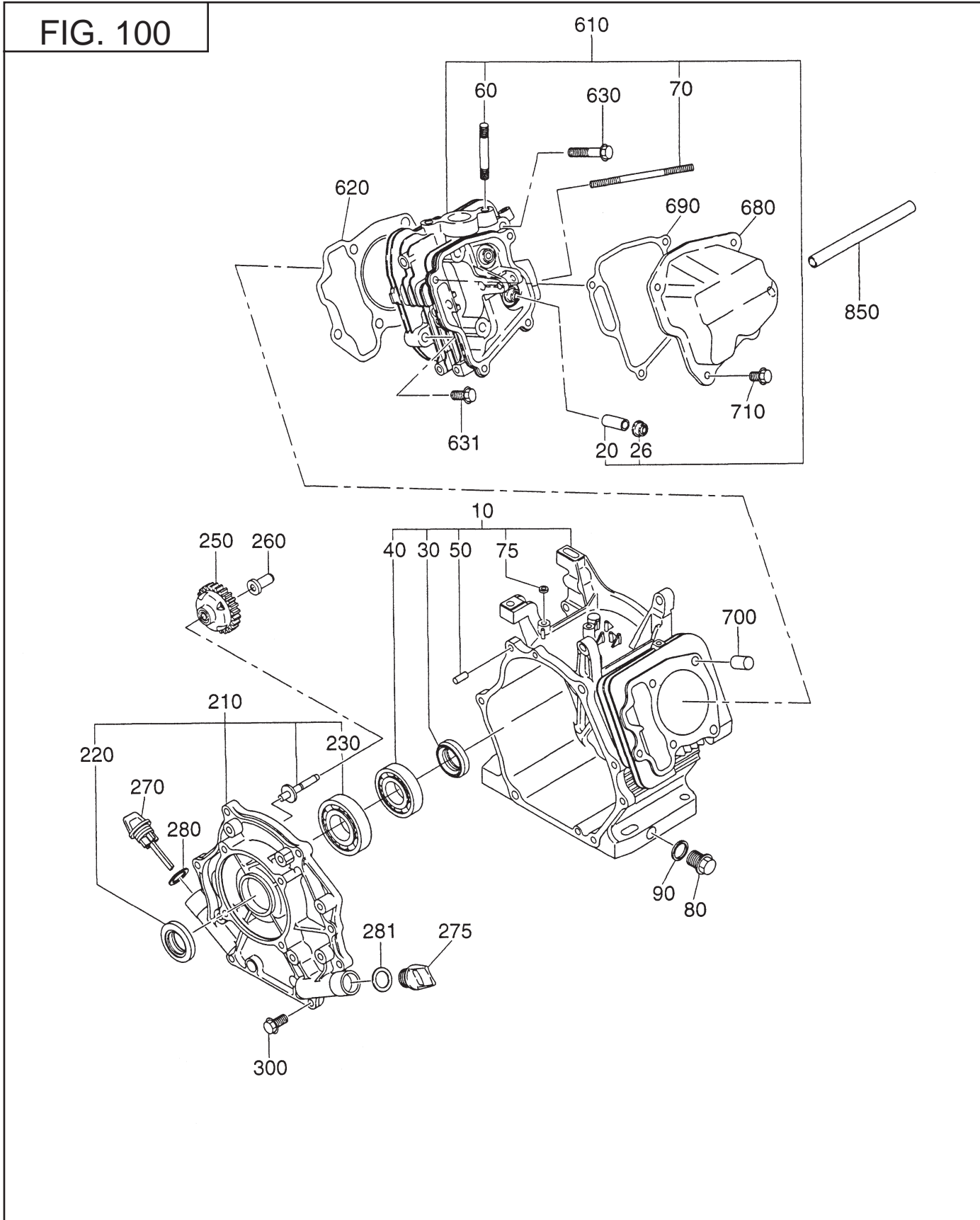
# GROUP INDEX

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 .....	20
ELECTRIC DEVICE GROUP .....	22
ACCESSORY GROUP .....	24

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 2 CRANKSHAFT GROUP

FIG. 200

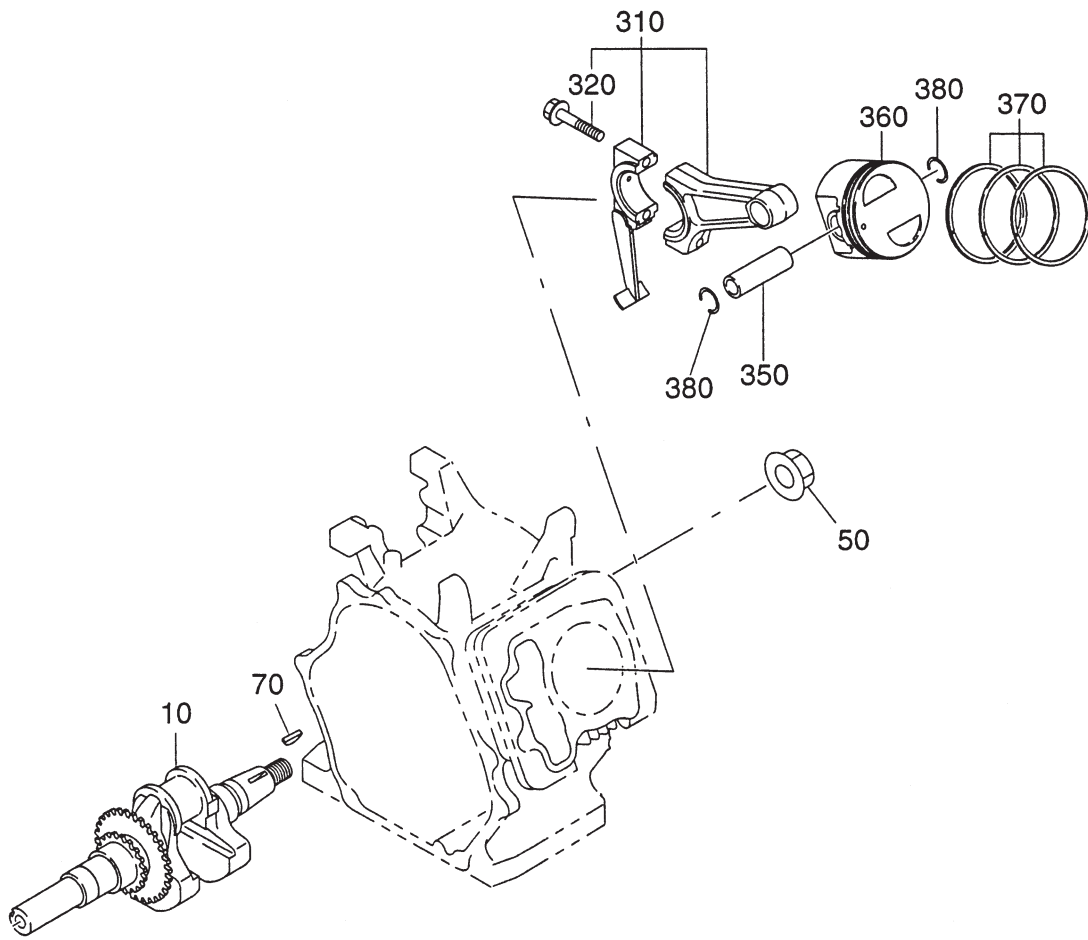
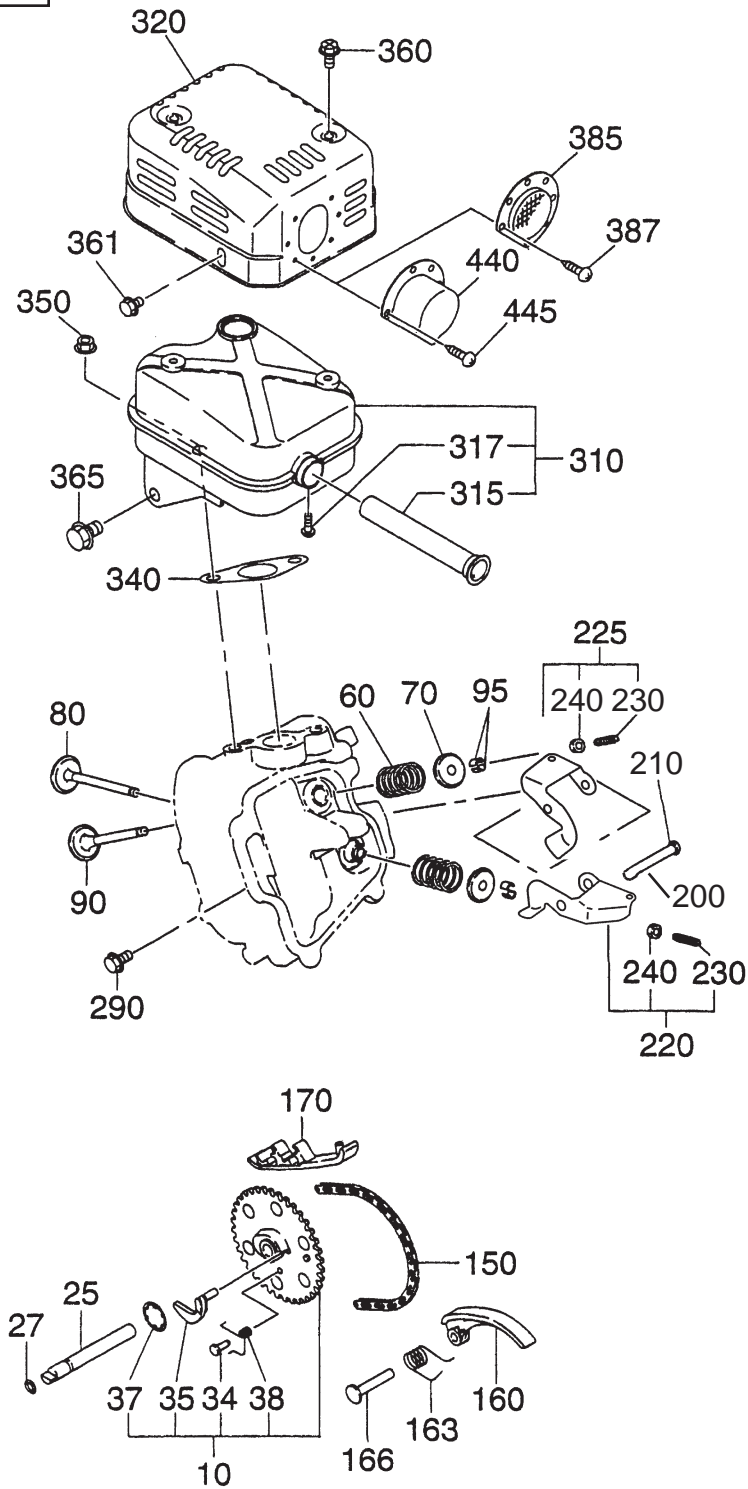






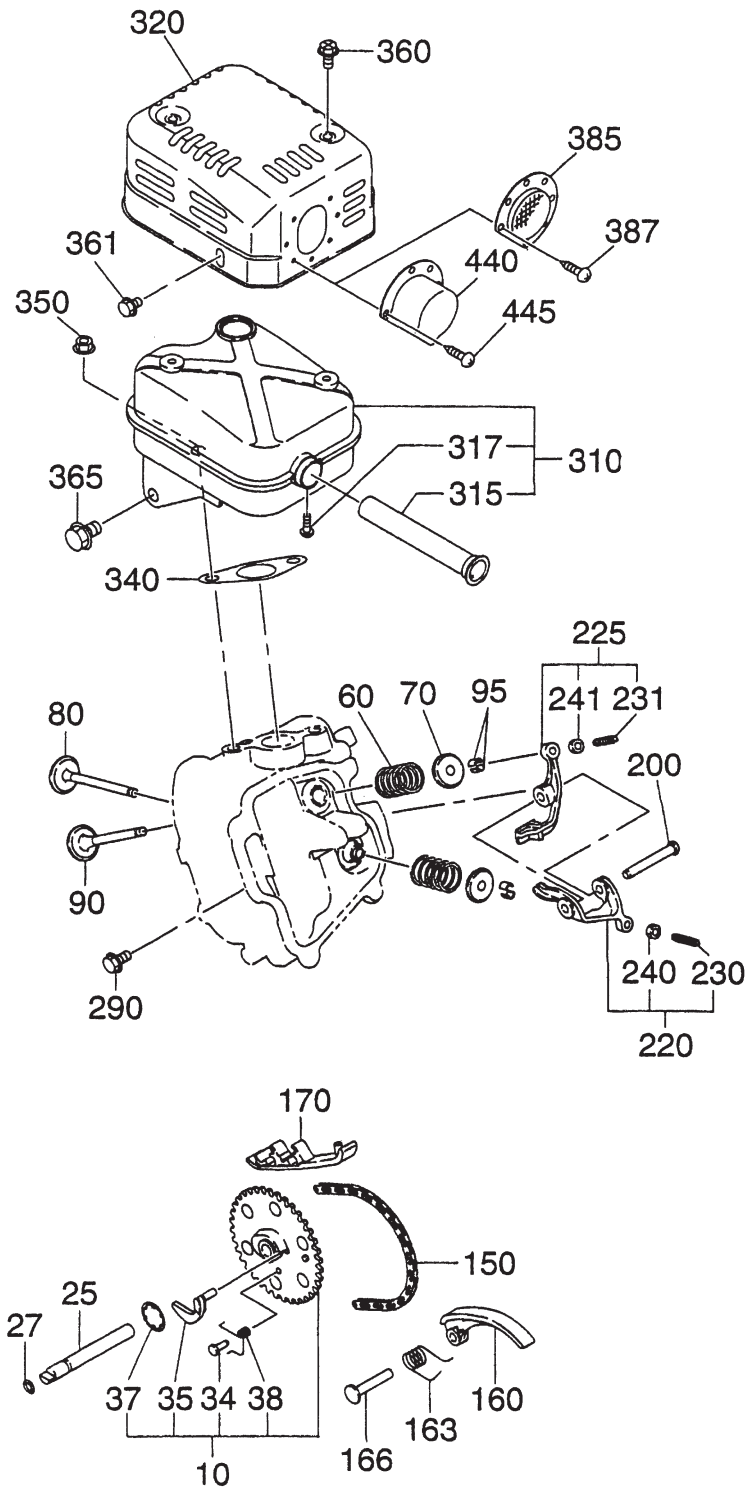
FIG. 300



### SECTION 3 INTAKE and EXHAUST GROUP - NEW STYLE

REF.	PART NO.	DESCRIPTION	QTY.	REMARKS	FROM-TO	FIG.
10	279-31601-01	CAMSHAFT CP	1		2100000~	300
25	277-35101-03	PIN, camshaft	1		2100000~	300
27	024-00600-10	O RING	1		2100000~	300
34	277-38601-03	PIN, spring	1		2100000~	300
35	279-36401-03	RELEASE LEVER	1		2100000~	300
37	277-36501-03	CLIP	1		2100000~	300
38	277-38701-03	RETURN SPRING	1		2100000~	300
60	279-33601-03	VALVE SPRING	2		2100000~	300
70	269-33701-03	RETAINER VALVE SPRING	2		2100000~	300
80	279-33401-13	INTAKE VALVE	1		2100000~	300
90	279-33501-13	EXHAUST VALVE	1		2100000~	300
95	132-10KA0-31	COLLET VALVE	4		2100000~	300
150	279-35601-11	TIMING CHAIN CP	1		2100000~	300
160	277-36911-03	TENTIONER	1		2100000~	300
163	277-37101-03	SPRING, tentioner	1		2100000~	300
166	277-36902-03	PIN, tentioner	1		2100000~	300
170	277-36913-13	CHAIN GUIDE	1		2100000~	300
200	277-35001-23	PIN, rocker	1		2100000~	300
210	003-13050-00	CLIP	1		2100000~	300
220	277-36201-00	ROCKER ARM AY, intake	1		2100000~	300
225	277-36202-00	ROCKER ARM AY, exhaust	1		2100000~	300
230	014-90500-20	ADJUST SCREW	2		2100000~	300
240	017-00500-30	NUT	2		2100000~	300
290	011-00600-20	FLANGE BOLT	1		2100000~	300
310	279-30101-31	MUFFLER CP	1		2100000~	300
	279-30111-01	MUFFLER CP	1	w/ spark arrestor	2100000~	300
315	279-37601-01	SPARK ARRESTOR	1		2100000~	300
317	015-00400-60	TAPPING SCREW	1		2100000~	300
320	279-34201-11	MUFFLER COVER CP	1		2100000~	300
340	277-35201-13	GASKET, muffler	1		2100000~	300
350	980-20082-80	FLANGE NUT	2		2100000~	300
360	015-20600-90	TAPPING BOLT	2		2100000~	300
361	011-00600-10	FLANGE BOLT	1		2100000~	300
365	011-00801-50	FLANGE BOLT	1		2100000~	300
385	277-37203-01	SCREEN CP	1		2100000~	300
387	015-00400-60	TAPPING SCREW	2		2100000~	300
440	277-37001-03	DEFLECTOR	1		2100000~	300
445	015-00400-60	TAPPING SCREW	2		2100000~	300

FIG. 300

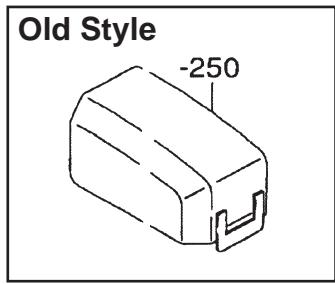


### SECTION 3 INTAKE and EXHAUST GROUP - OLD STYLE

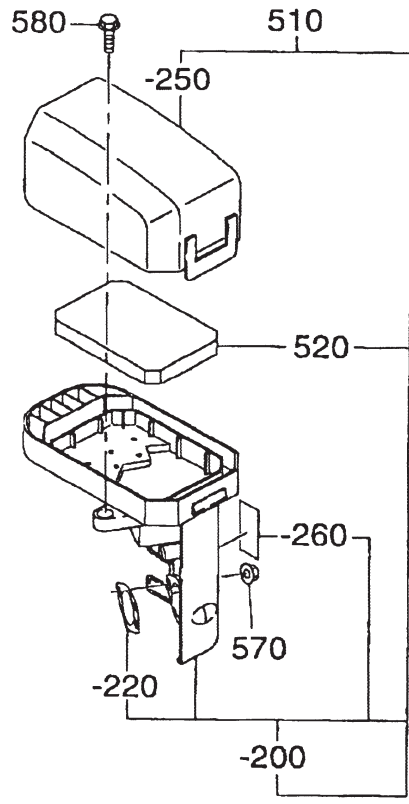
REF.	PART NO.	DESCRIPTION	QTY.	REMARKS	FROM-TO	FIG.
10	279-31601-01	CAMSHAFT CP	1		~2099999	300
25	277-35101-03	PIN, camshaft	1		~2099999	300
27	024-00600-10	O RING	1		~2099999	300
34	277-38601-03	PIN, spring	1		~2099999	300
35	279-36401-03	RELEASE LEVER	1		~2099999	300
37	277-36501-03	CLIP	1		~2099999	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	FLANGE 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 BOLT	1		~2099999	300

SECTION 3 INTAKE and EXHAUST GROUP

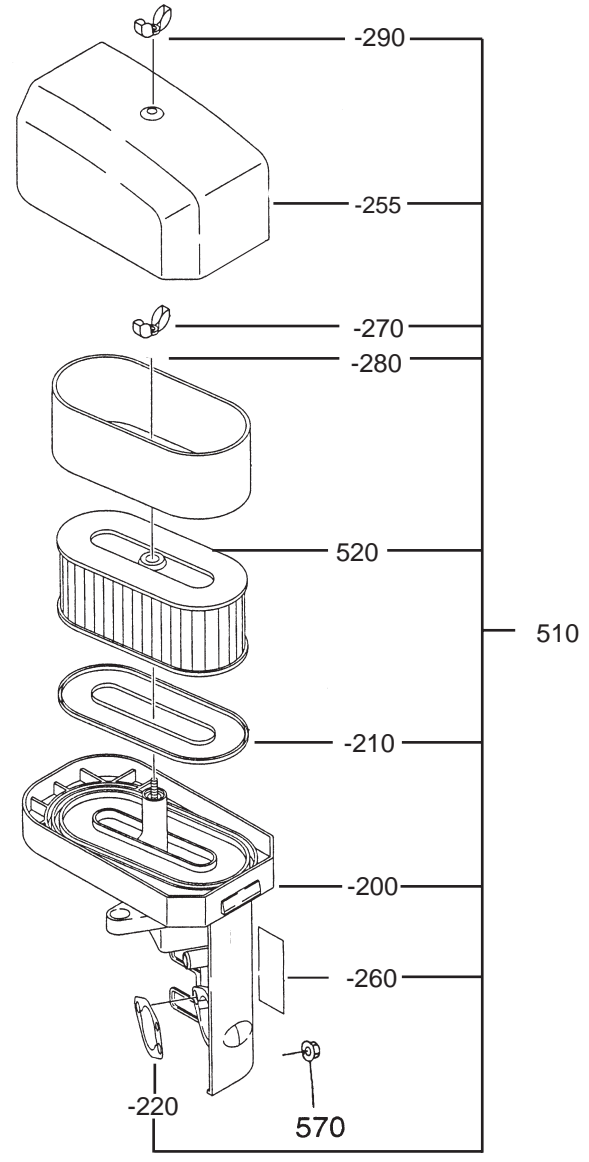
FIG. 310



A



B



### SECTION 3 INTAKE and EXHAUST GROUP

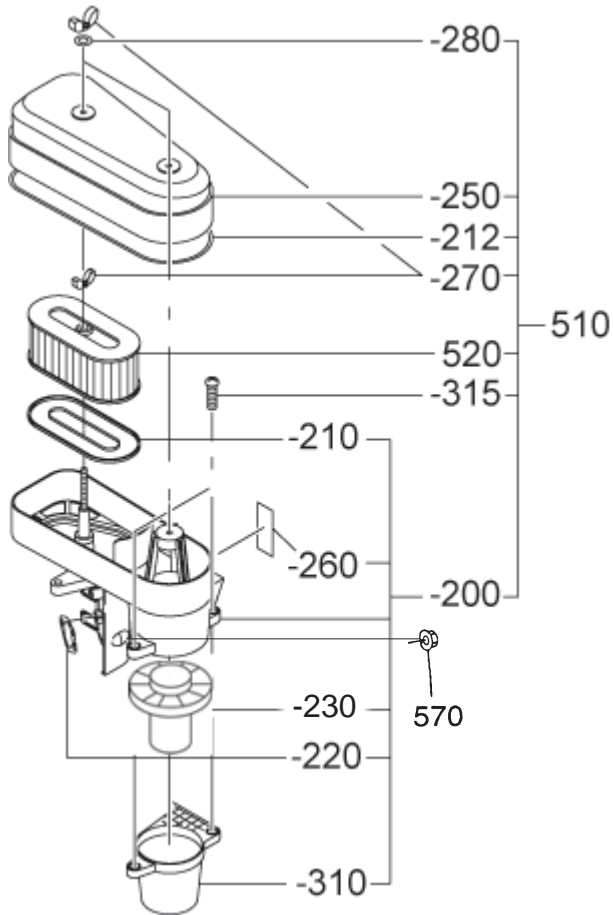
REF.	PART NO.	DESCRIPTION	QTY.	REMARKS	FROM-TO	FIG.
510	279-32611-00	AIR CLEANER AY	1	Foam		310A
	279-32615-20	AIR CLEANER AY	1	Dual element, New Style		310B
	279-32612-00	AIR CLEANER AY	1	Dual element, Old Style		310B
-200	279-32630-08	CASE	1	Foam		310A
	279-32634-08	CASE	1	Dual element, New Style		310B
	279-32631-08	CASE	1	Dual element, Old Style		310B
-210	279-32720-08	PACKING	1	Dual element		310B
-220	279-32650-08	GASKET	1			310
-250	279-32640-08	COVER	1			310
-255	279-32643-08	COVER	1			310B
-260	279-32730-08	LABEL	1			310
-270	279-32740-08	NUT	1	Dual element		310B
-280	279-32675-08	WASHER	1	Dual element, New Style		310B
-290	279-32740-08	NUT	1	Dual element, New Style		310B
520	279-32603-08	ELEMENT	1	Foam		310A
	279-32607-07	ELEMENT	1	Dual element		310B
570	002-38060-00	FLANGE NUT	1			310
580	011-00600-50	FLANGE BOLT	1	Foam		310A

SECTION 3 INTAKE and EXHAUST GROUP

FIG. 320

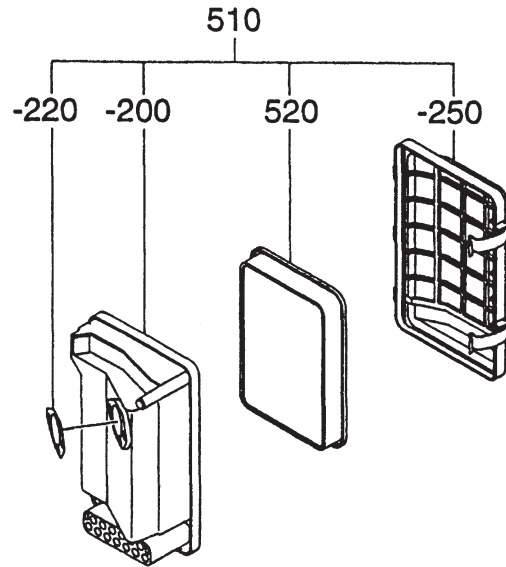
Cyclone Pre-Cleaner

(C)



Low Profile

(D)



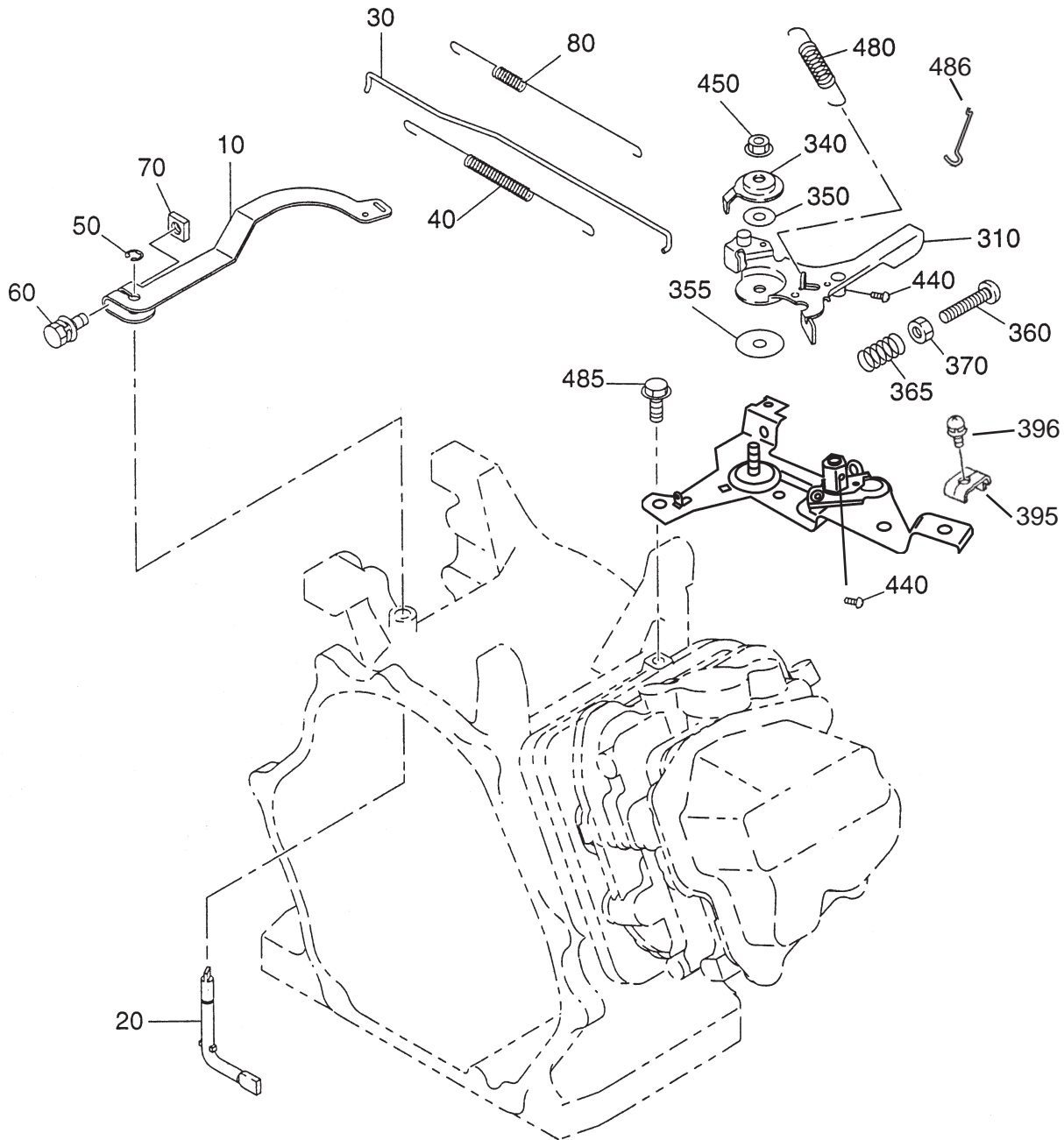


**SECTION 3 INTAKE and EXHAUST GROUP**

REF.	PART NO.	DESCRIPTION	QTY.	REMARKS	FROM-TO	FIG.
510	279-32613-00	AIR CLEANER AY	1	Cyclone Pre-Cleaner		320C
	279-32620-30	AIR CLEANER AY	1	Low Profile		320D
-200	279-32632-08	ELBOW, BASE	1			320C
	279-32633-08	BODY CP	1			320D
-210	279-32720-08	PACKING	1			320C
-212	279-32670-08	SEAL	1			320C
-220	279-32650-08	GASKET	1			320
-230	279-32665-08	PIPE, PRE-CLEANER	1			320C
-250	279-32641-08	COVER, CYCLONE	1			320C
	279-32644-08	COVER, LOW PROFILE	1			320D
-260	279-32730-08	LABEL	1			320C
-270	279-32740-08	WING NUT	3			320C
-280	279-32675-08	WASHER	2			320C
-310	279-32660-08	DUST CASE, CUP	1			320C
-315	279-32680-08	PAN SCREW	2			320C
520	279-32607-07	ELEMENT AY	1			320C
	279-32609-07	ELEMENT AY	1			320D
570	002-38060-00	FLANGE NUT	1			320C
580	011-00600-50	FLANGE BOLT	1			320C

SECTION 4 GOVERNOR GROUP - NEW STYLE

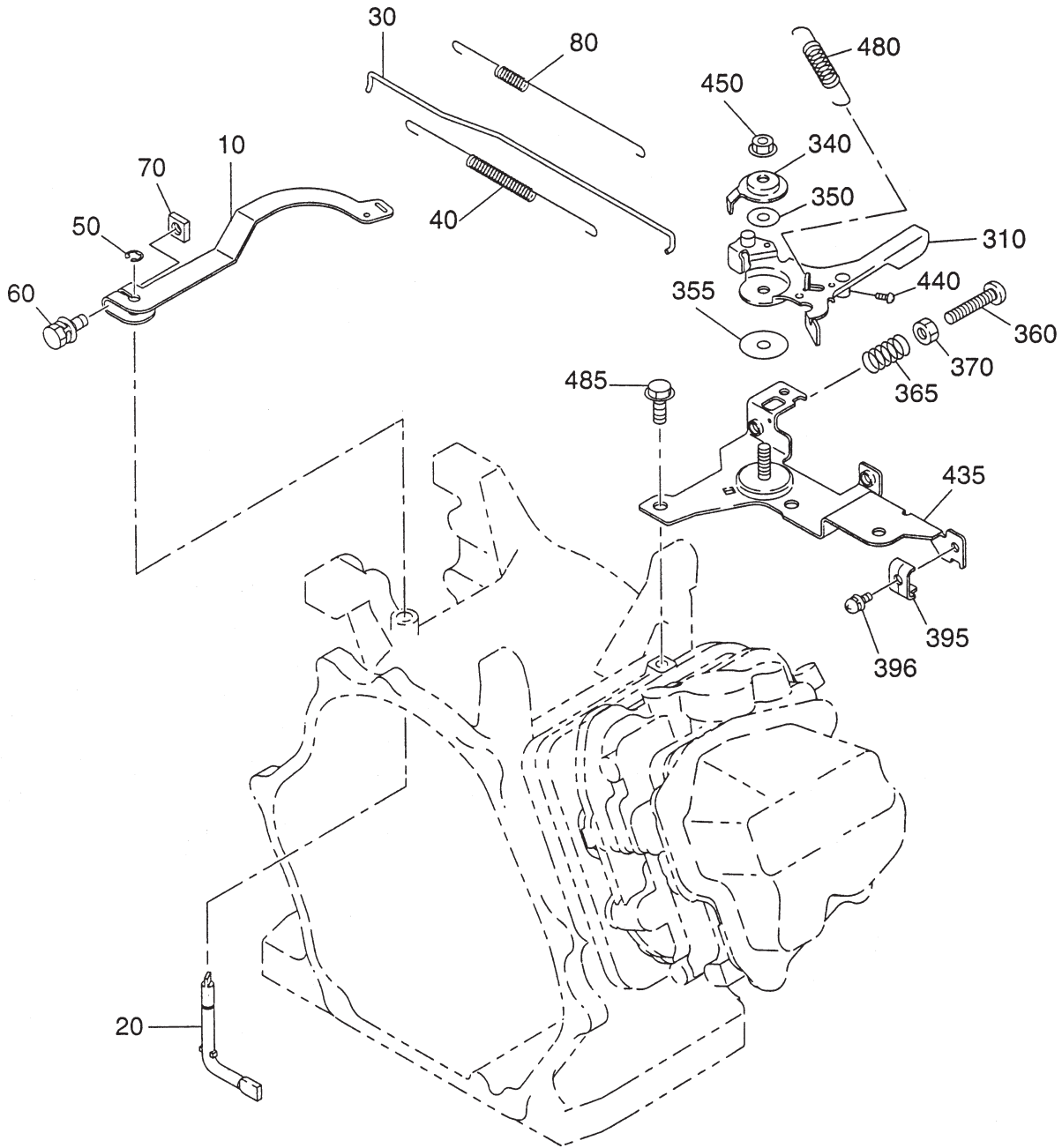
FIG. 400





SECTION 4 GOVERNOR GROUP - OLD STYLE

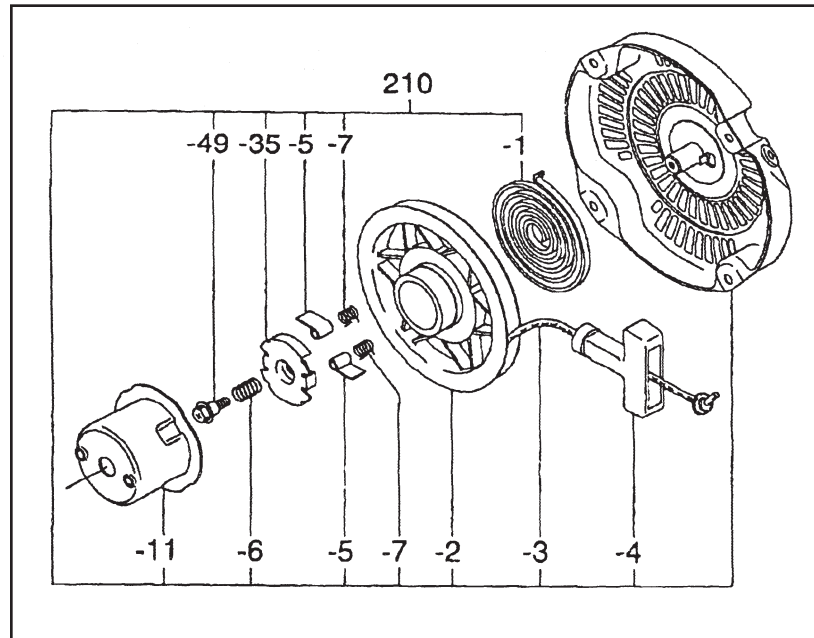
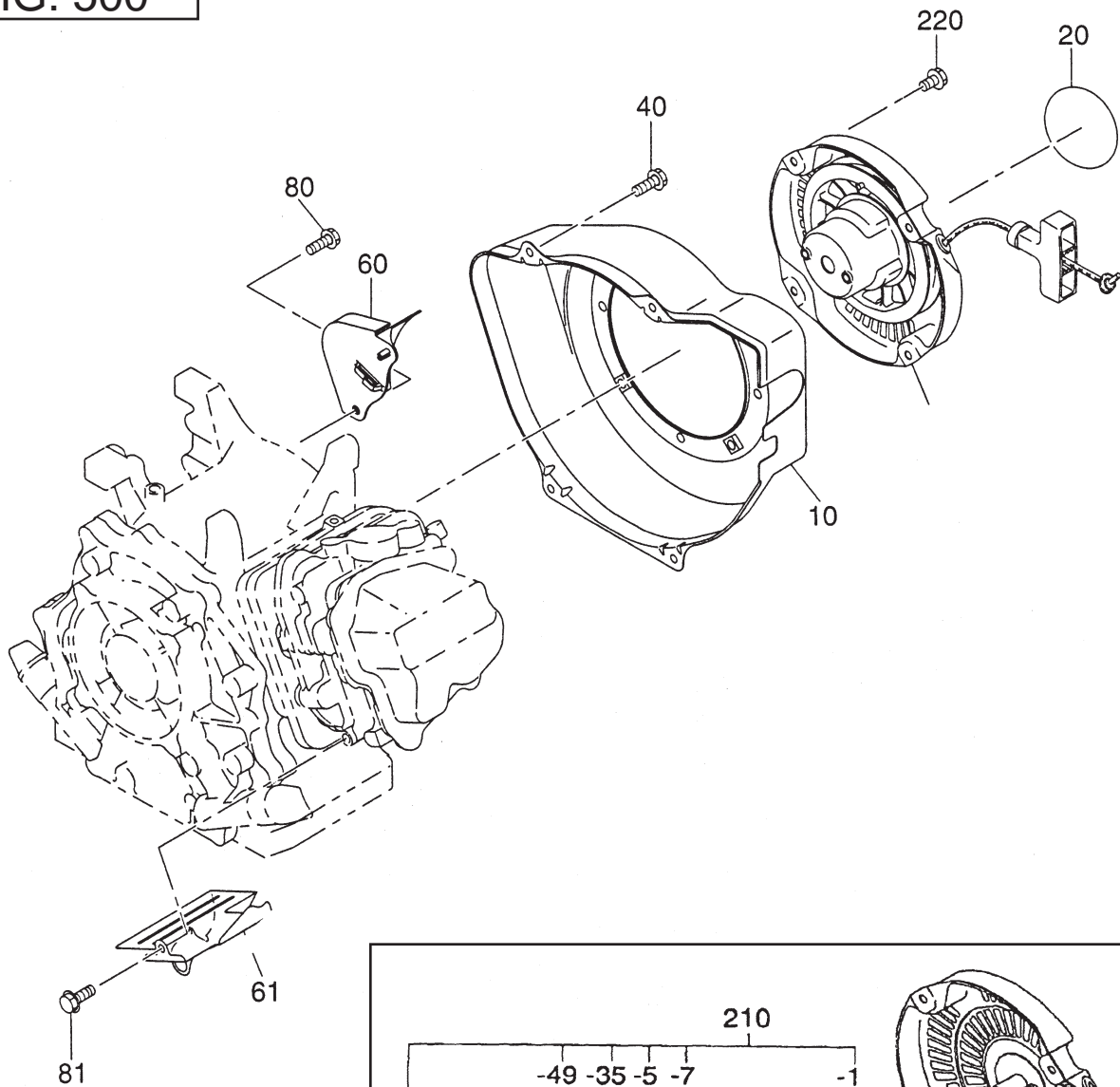
FIG. 400





SECTION 5 COOLING and STARTING GROUP

FIG. 500

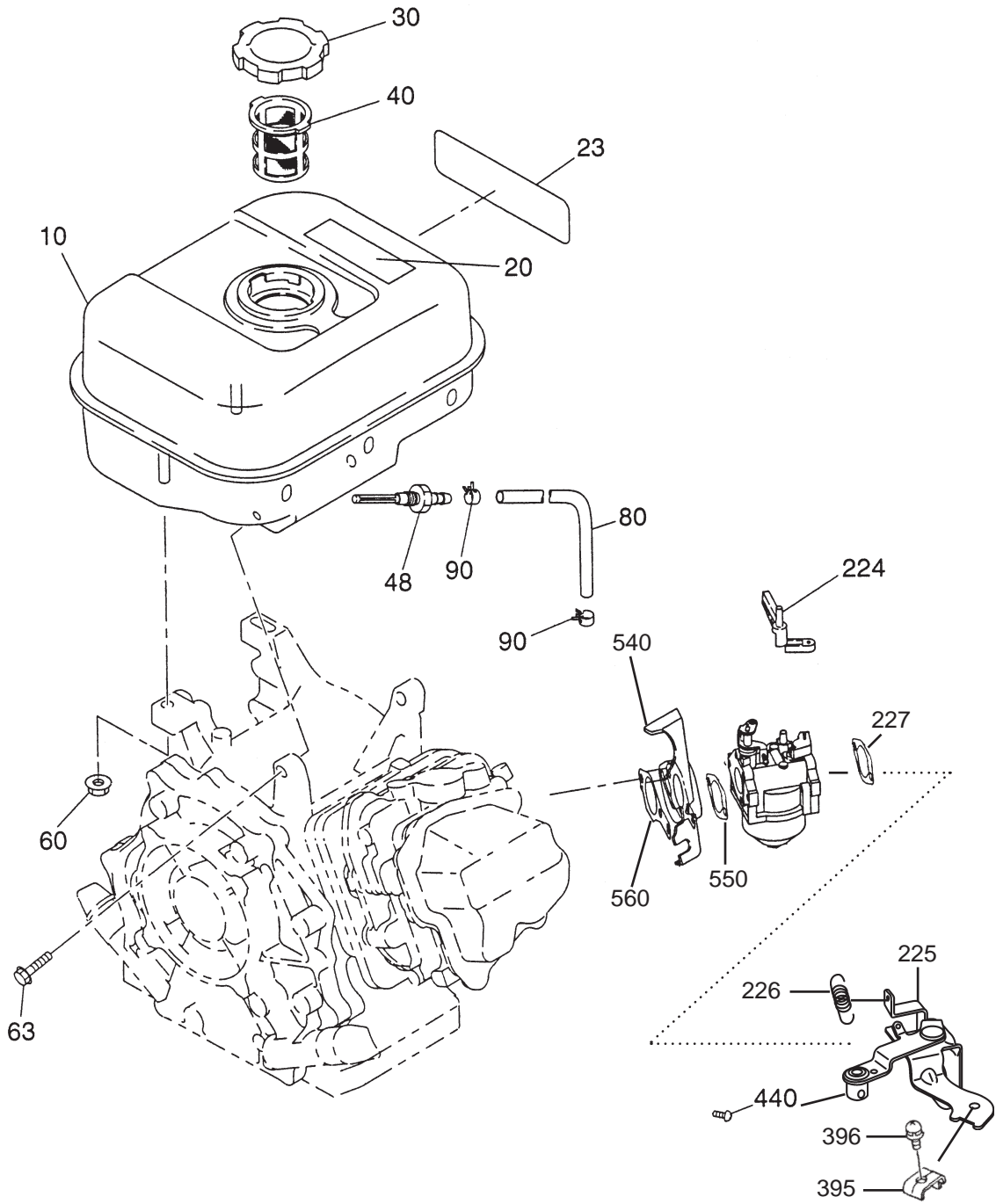


**SECTION 5 COOLING and STARTING GROUP**

REF.	PART NO.	DESCRIPTION	QTY.	REMARKS	FROM-TO	FIG.
10	279-51202-01	BLOWER HOUSING CP	1	Black		500
	279-51201-11	BLOWER HOUSING	1	Yellow		500
20	073-20051-40	LABEL, trademark	1			500
40	011-00600-30	FLANGE BOLT	4			500
60	279-52711-11	BAFFLE 1 CP, case	1			500
61	279-52702-13	BAFFLE 2, head	1			500
80	001-65081-20	BOLT	1			500
81	011-00600-20	FLANGE BOLT	1			500
210	279-50202-00	RECOIL STARTER AY	1			500
-1	226-50716-08	SPIRAL SPRING	1			500
-2	279-50120-08	REEL	1			500
-3	279-50110-08	STARTER ROPE	1			500
-4	226-50701-08	STARTER KNOB	1			500
-5	279-50125-08	RATCHET	2			500
-6	226-50731-08	FRICTION SPRING	1			500
-7	226-50752-08	RATCHET SPRING	2			500
-11	279-50145-08	STARTER PULLEY	1			500
-35	226-50741-08	FRICTION PLATE	1			500
-49	226-50753-08	CENTER SCREW	1			500
220	011-00600-10	FLANGE BOLT	4			500

SECTION 6 FUEL, LUBRICATION GROUP

FIG. 600

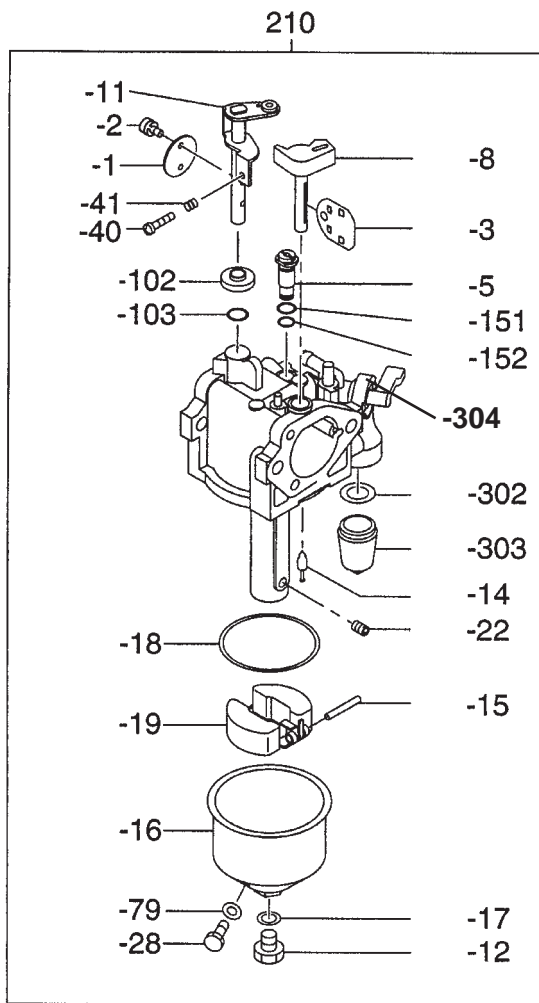






SECTION 6 FUEL, LUBRICATION GROUP

FIG. 610

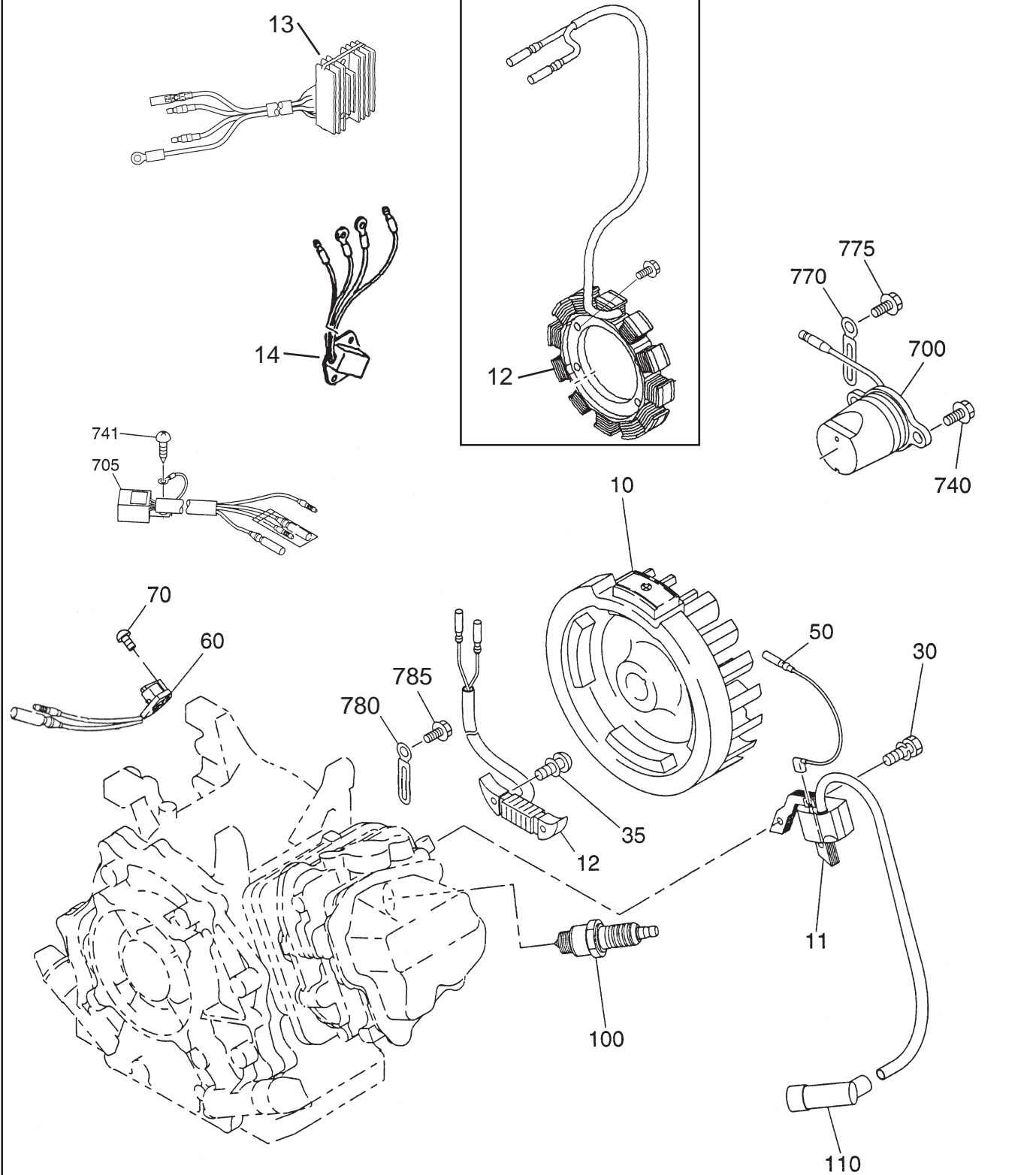


## SECTION 6      FUEL, LUBRICATION GROUP

REF.	PART NO.	DESCRIPTION	QTY.	REMARKS	FROM-TO	FIG.
210	279-62301-10	CARBURETOR	1	Foam		610
	279-62302-10	CARBURETOR	1	Dual Element		610
	279-62304-20	CARBURETOR	1	Low Profile		610
-1	279-62535-08	THROTTLE VALVE	1			610
-2	251-62450-08	SCREW	1			610
-3	279-62525-08	CHOKE VALVE	1	Foam, Dual Element		610
	279-62526-08	CHOKE VALVE	1	Low Profile		610
-5	279-62420-08	SLOW JET	1			610
-8	279-62520-08	CHOKE SHAFT	1	Foam, Dual Element		610
	279-62570-08	CHOKE SHAFT	1	Low Profile		610
-11	279-62530-08	THROTTLE SHAFT	1			610
-12	251-62453-08	SCREW	1			610
-14	279-62500-08	NEEDLE VALVE AY	1			610
-15	279-26515-08	PIN, float lever	1			610
-16	279-62550-08	FLOAT BODY	1			610
-17	251-62350-08	GASKET	1			610
-18	279-62540-08	GASKET, chamber	1			610
-19	279-62550-08	FLOAT, chamber	1			610
-22	279-62400-08	MAIN JET	1	Foam, Low Profile		610
	279-62401-08	MAIN JET	1	Dual Element		610
-28	279-6235-08	DRAIN SCREW	1			610
-40	279-62353-08	ADJUST SCREW1	1			610
-41	279-62445-08	SPRING	1			610
-79	279-62552-08	GASKET	1			610
-102	279-62562-08	COLLAR	1			610
-103	279-62561-08	BUSHING	1			610
-151	279-62452-08	O RING	1			610
-152	279-26451-08	O RING	1			610
-302	064-20064-10	PACKING	1			610
-303	064-20078-10	CUP	1			610
-304	279-62103-00	FUEL STRAINER AY	1			610
*	279-62536-08	COLLAR, upper	1	Low Profile		610
*	279-62564-08	COLLAR, lower	1	Low Profile		610

SECTION 7 ELECTRIC DEVICE GROUP

FIG. 700

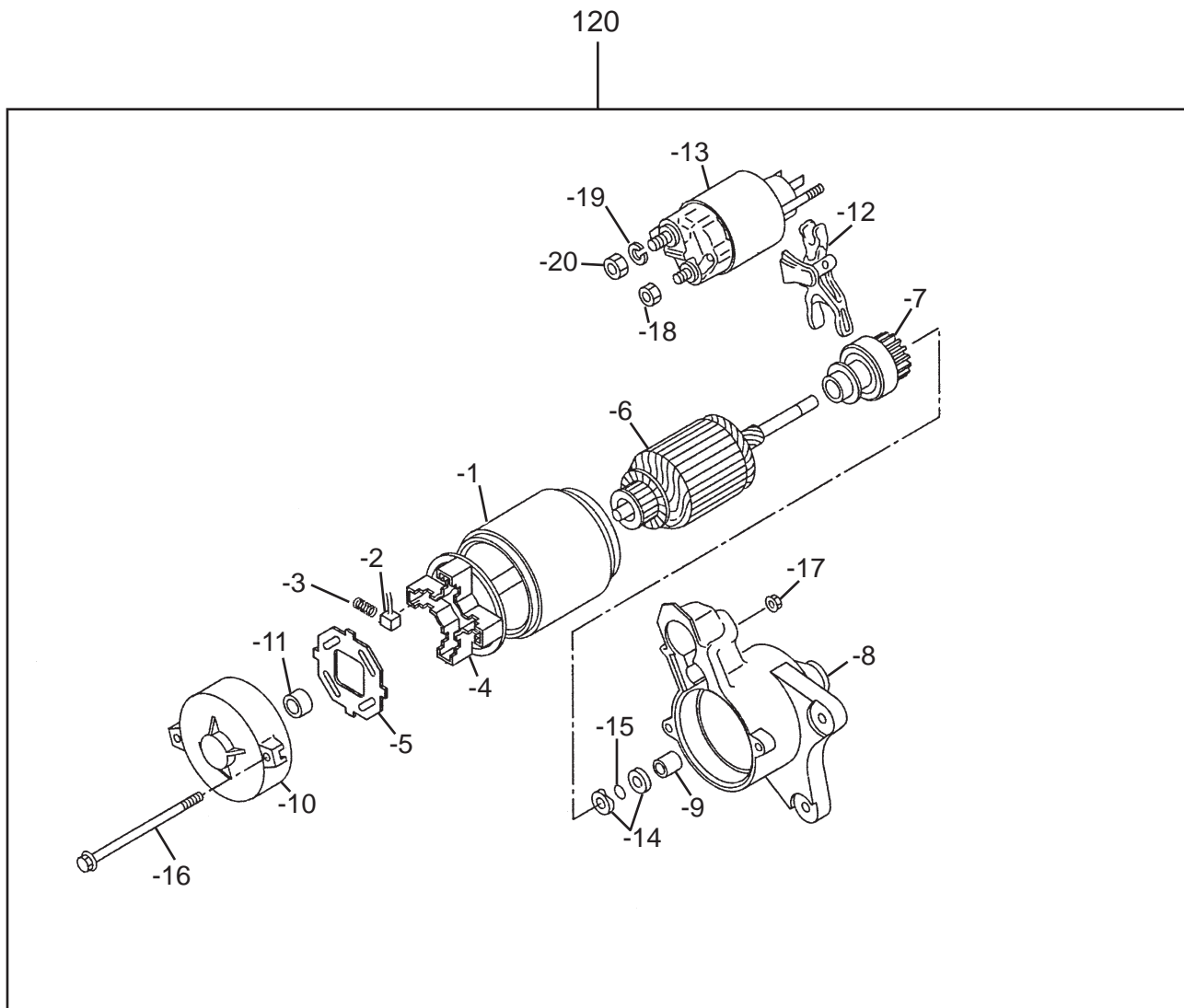


### SECTION 7 ELECTRIC DEVICE GROUP

REF.	PART NO.	DESCRIPTION	QTY.	REMARKS	FROM-TO	FIG.
10	279-79230-01	FLYWHEEL CP	1	STD		700
	279-79241-01	FLYWHEEL CP	1	15W, 40W Charging		700
	279-79242-01	FLYWHEEL CP	1	200W Charging		700
	279-79251-01	FLYWHEEL CP	1	15W, 40W w/o ring gear		700
	279-79252-01	FLYWHEEL CP	1	200W w/o ring gear		700
11	279-79430-01	IGNITION COIL CP	1			700
12	279-79301-01	CHARGE COIL	1	15W		700
	279-79302-01	CHARGE COIL	1	40W		700
	279-79303-01	CHARGE COIL	1	200W		700
13	277-71901-01	REGULATOR RECTIFIER	1	200W		700
14	147-71401-01	RECTIFIER DIODE	1	15W, 40W		700
30	001-14062-50	BOLT and WASHER AY	2			700
35	001-13062-00	BOLT and WASHER	2	15W		700
	001-13063-00	BOLT and WASHER	2	40W		700
40	004-35062-50	SCREW and WASHER	4	200W		700
50	277-73101-01	WIRE 1 CP	1	w/o oil sensor		700
	277-73102-H1	WIRE 2 CP	1	w/ oil sensor		700
	279-73105-H1	WIRE 5 CP	1	Electric Start		700
60	066-00003-71	SWITCH AY	1	Old style		700
70	X66-00004-20	TAPPING SCREW	2			700
100	065-01401-50	SPARK PLUG	1			700
110	065-50002-70	SPARK PLUG CAP	1			700
700	279-76301-31	OIL SENSOR CP	1			700
705	KU3-11071-01	CONTROL AY, oil sensor	1	New Style, w/ stop switch	2100000~	700
	KU3-11070-01	CONTROL AY, oil sensor	1	New Style, w/o stop switch	2100000~	700
	KU3-11043-01	CONTROL AY, oil sensor	1	Old style	~2099999	700
740	001-14061-60	BOLT and WASHER	2			700
741	015-00400-90	TAPPING SCREW	2			700
770	214-79006-01	CLAMP	1			700
775	011-00600-20	FLANGE BOLT	1			700
780	279-75501-03	CLAMP	1			700
785	015-20600-50	TAPPING BOLT	1			700

SECTION 7 ELECTRIC DEVICE GROUP - ELECTRIC STARTER

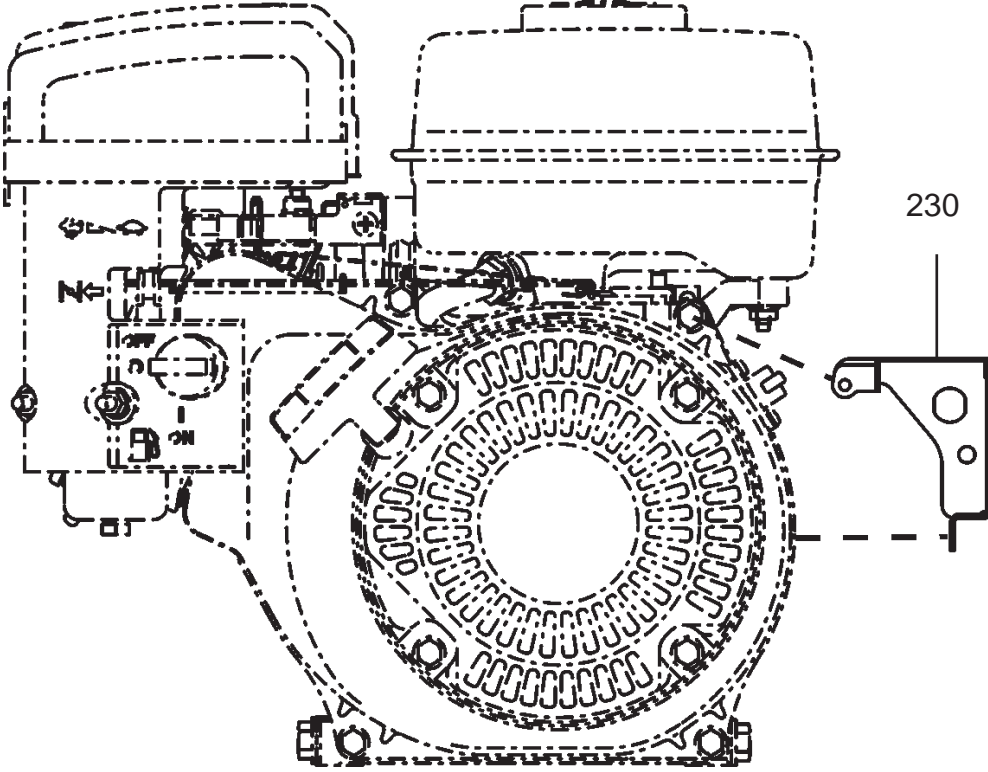
FIG. 710



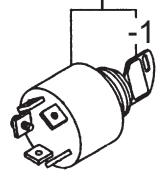
**SECTION 7 ELECTRIC DEVICE GROUP - ELECTRIC STARTER**

REF.	PART NO.	DESCRIPTION	QTY.	REMARKS	FROM-TO	FIG.
120	279-70502-00	STARTER MOTOR	1			710
-1	209-70550-08	YOKE CP	1			710
-2	209-70551-08	BRUSH, starter	4			710
-3	209-70545-08	SPRING, starter brush	4			710
-4	209-70530-08	HOLDER, brush	1			710
-5	209-70552-08	INSULATOR	1			710
-6	209-70554-08	ARMATURE AY	1			710
-7	209-70521-08	OVER RUNNING CLUTCH	1			710
-8	279-70550-08	HOUSING CP	1			710
-9	209-70511-08	BUSH, starter housing	1			710
-10	209-70505-18	FRAME CP	1			710
-11	209-70510-08	BUSH, starter	1			710
-12	209-70525-08	LEVER	1			710
-13	279-70515-08	MAGNETIC SWITCH	1			710
-14	234-70555-08	COLLAR, pinion stop	1			710
-15	209-70557-08	SNAP RING	1			710
-16	209-70558-08	THROUGH BOLT	2			710
-17	949-29970-02	NUT	2			710
-18	209-70560-08	NUT	1			710
-19	209-70562-08	SPRING WASHER	1			710
-20	209-70563-08	NUT	1			710

FIG. 720



Key switch  
200



230

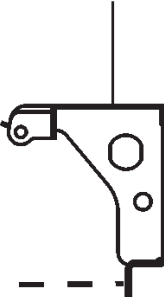
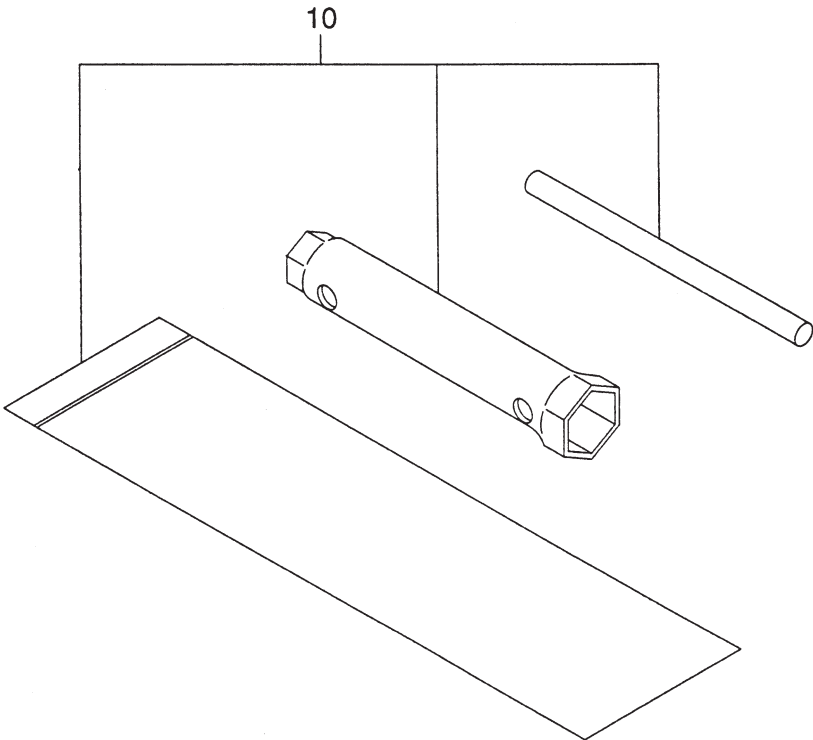






FIG. 900





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