

PARTS MANUAL

Model

**SP170 / SP210
ENGINES**

PUB-EP
Rev. 11/10



SUBARU

Industrial Power Products

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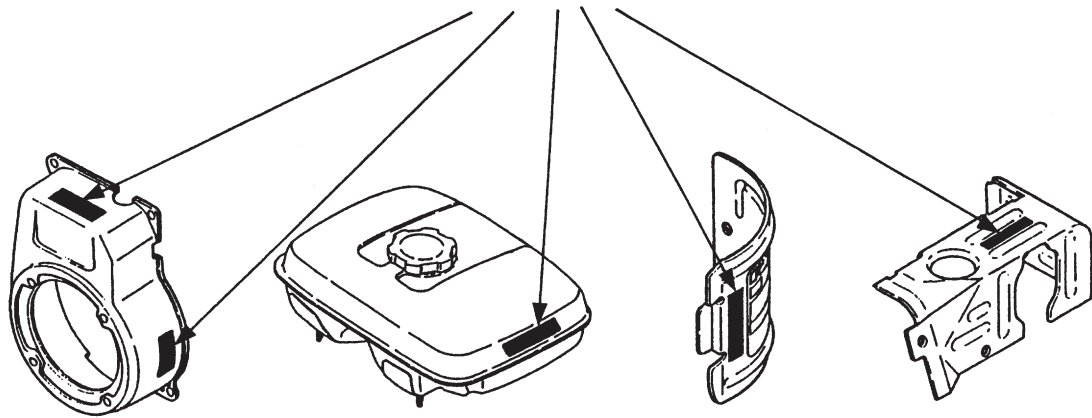
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HOW TO USE THIS MANUAL

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:

EX210DT □ □ □ □ **XXXX**

SPEC NO. (11 digits)

CODE NO. (4 digits)

PRODUCT NO. (15 digits)

NOTE
The "T" in the specification number denotes the engine as an SP210.

MANUAL LAYOUT

1— SECTION 6 FUEL GROUP

2— FIG. 600

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
	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 number 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
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CRANKSHAFT GROUP	8
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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

FIG. 1 CRANKCASE GROUP

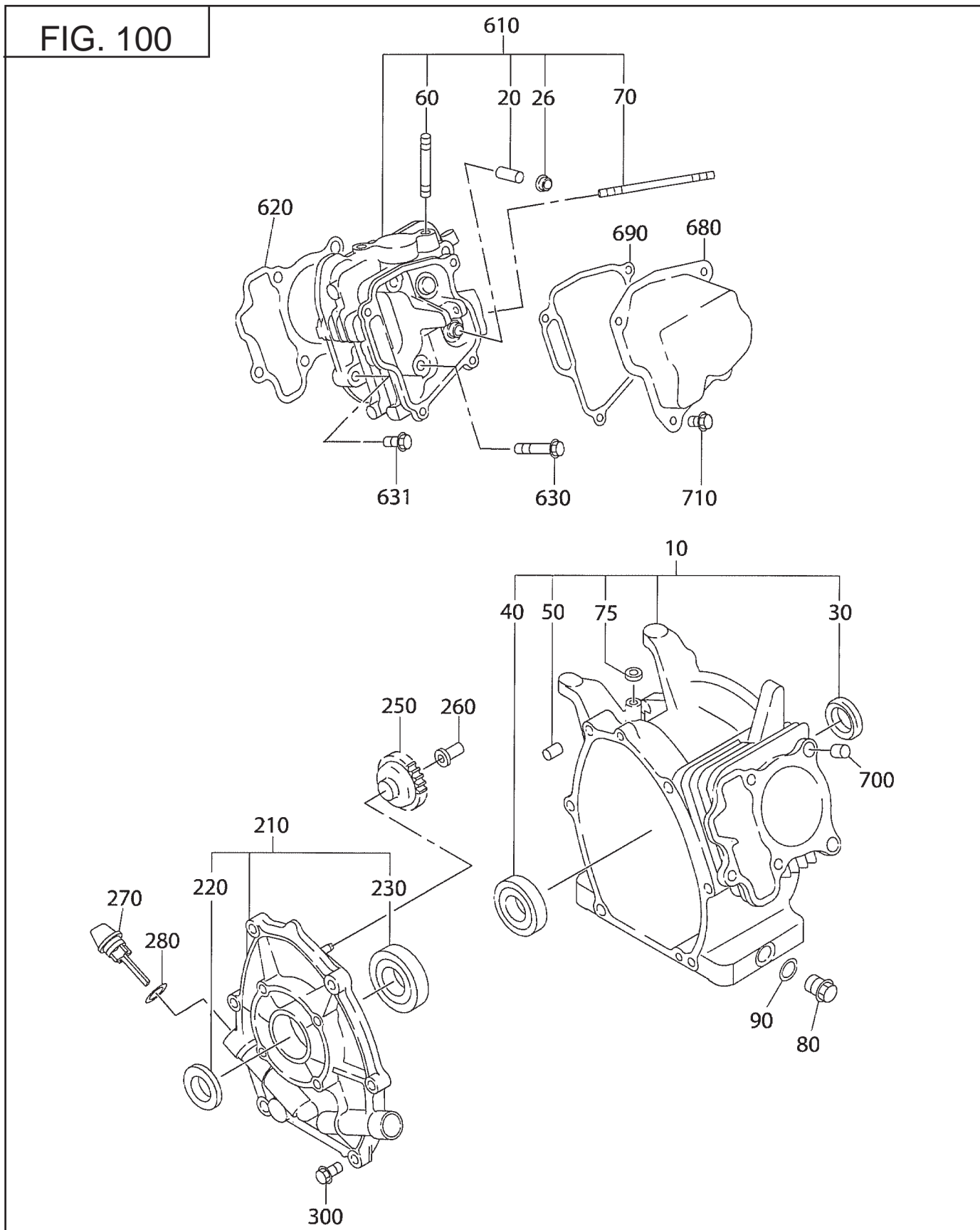


FIG. 1 CRANKCASE GROUP

Ref.	Part Number	Description	Qty	Remarks	To-From	Fig.
10	277-10101-41	CRANKCASE CP	1			100
10	277-10102-51	CRANKCASE CP	1	EX170DT0040		100
10	278-10102-61	CRANKCASE CP	1	SP210		100
20	237-14201-03	VALVE GUIDE	2	SP170		100
20	237-14202-03	VALVE GUIDE	2	SP210		100
26	277-16010-01	STEM SEAL	1			100
30	044-02502-00	OIL SEAL	1			100
40	060-02800-21	BALL BEARING	1			100
50	277-15011-03	PIPE KNOCK	2			100
60	010-50802-50	STUD	2			100
60	010-50802-90	STUD	2	EX170DT0100/SP210		100
70	010-50603-51	STUD	2			100
75	044-00600-20	OIL SEAL	1			100
80	040-11400-30	PLUG	1			100
90	021-11400-20	GASKET	1			100
210	277-11002-21	MAIN BEARING COVER CP	1			100
220	044-02502-10	OIL SEAL	1			100
230	060-02501-40	BALL BEARING	1			100
250	277-45004-J1	GOVERNOR GEAR	1			100
260	277-41901-03	GOVERNOR SLEEVE	1			100
270	277-63601-30	OIL GAUGE	2			100
280	021-31600-20	GASKET	2			100
300	001-04083-50	FLANGE BOLT	6			100
610	277-13001-11	CYLINDER HEAD CP	1	SP170		100
610	278-13002-11	CYLINDER HEAD CP	1	SP210		100
620	277-15001-23	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	277-99001-47	GASKET SET	1			100

FIG. 2 CRANKSHAFT GROUP

FIG. 200

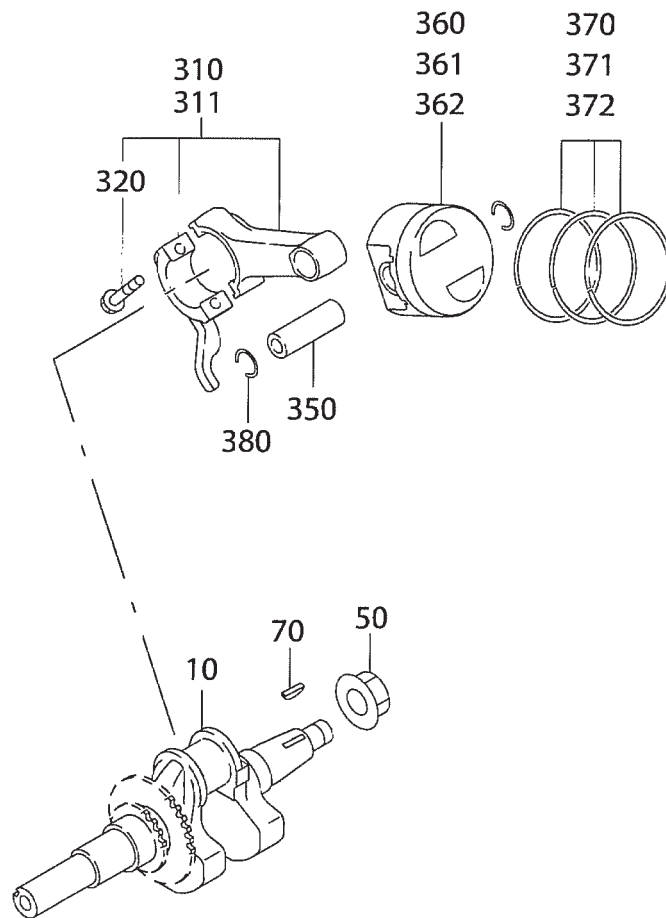


FIG. 3 INTAKE and EXHAUST GROUP

FIG. 300

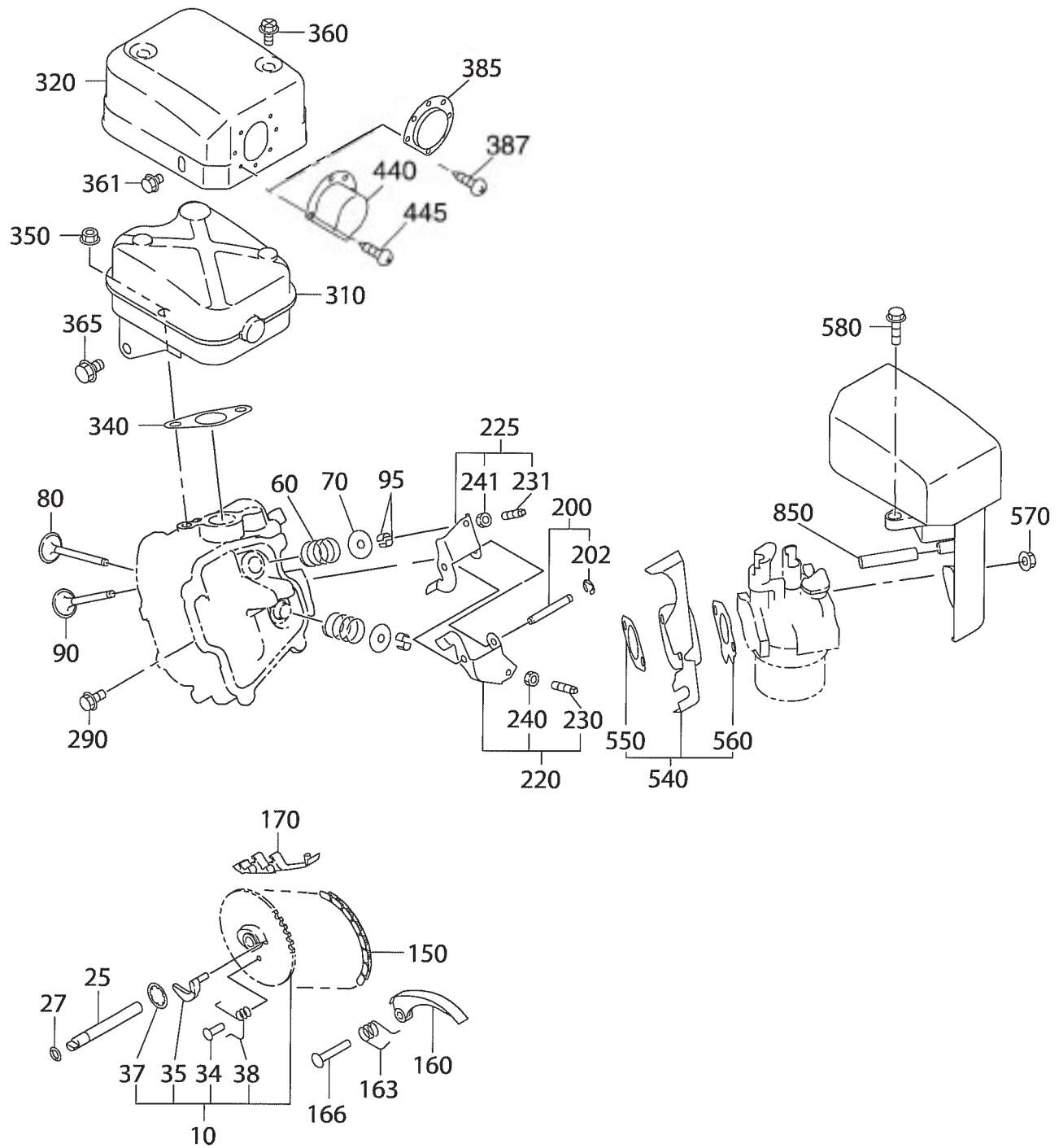


FIG. 3 INTAKE and EXHAUST GROUP

Ref.	Part Number	Description	Qty	Remarks	To-From	Fig.
10	277-31601-31	CAMSHAFT CP	1			300
25	277-35101-03	PIN, CAMSHAFT	1	SP170		300
25	277-35101-01	PIN CP, CAMSHAFT	1	SP210		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	277-38702-03	RETURN SPRING	1			300
38	279-38701-13	RETURN SPRING	1	DT0040, DT0100		300
60	279-33601-03	VALVE SPRING	2			300
70	269-33701-03	SPRING RETAINER	2			300
80	277-33401-H3	INTAKE VALVE	1			300
90	277-33501-H3	EXHAUST VALVE	1			300
95	132-10KA0-31	COLLET VALVE	4			300
150	277-35601-11	TIMING CHAIN	1	SP170		300
150	278-35601-11	TIMING CHAIN	1	SP210		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
219	277-36001-07	ROCKER ARM SET	1	SP210		300
220	277-36201-00	ROCKER ARM AY, INTAKE	1	SP170		300
225	277-36202-00	ROCKER ARM AY, EXHAUST	1	SP170		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	277-30101-J1	MUFFLER CP	1			300
310	277-30111-J1	MUFFLER CP	1	DT0040, DT1050, DT106		300
315	277-37601-01	SPARK ARRESTOR CP	1	DT0040		300
317	015-00400-60	TAPPING SCREW	1	DT0040		300
320	277-34201-31	MUFFLER COVER CP	1			300
320	277-34204-21	MUFFLER COVER CP	1	DT0040, DT1050, DT1060		300
337	277-37230-13	GLASS WOOL	1	DT0040		300
340	277-35201-13	GASKET, MUFFLER	1			300
341	270-35201-01	GASKET CP, MUFFLER	1	DT0100		300
350	980-20082-80	FLANGE NUT	2			300
350	002-38080-00	FLANGE NUT	2	DT0040, DT0100, DT1050, DT1060		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
367	20A-02101-00	WASHER	1	DT0040, DT1050, DT1060		300
383	277-37222-13	SUS MESH	1	DT0040		300

FIG. 3 INTAKE and EXHAUST GROUP

FIG. 300

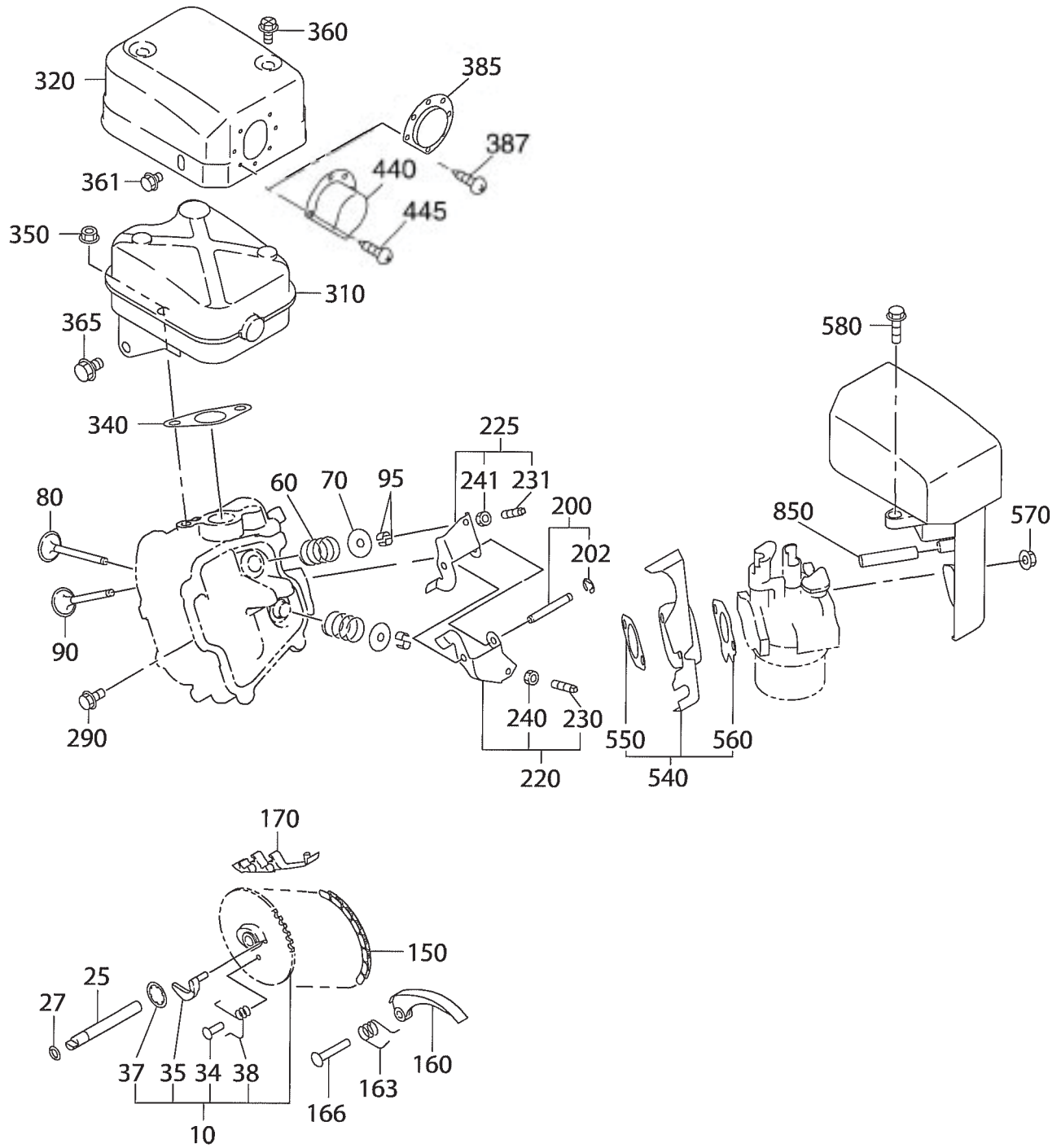
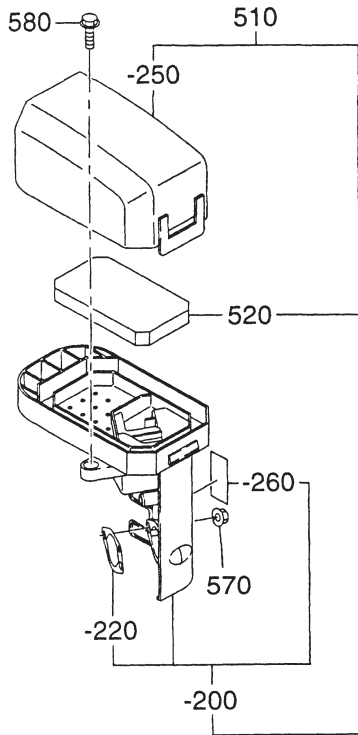


FIG. 3 INTAKE and EXHAUST GROUP

FIG. 315

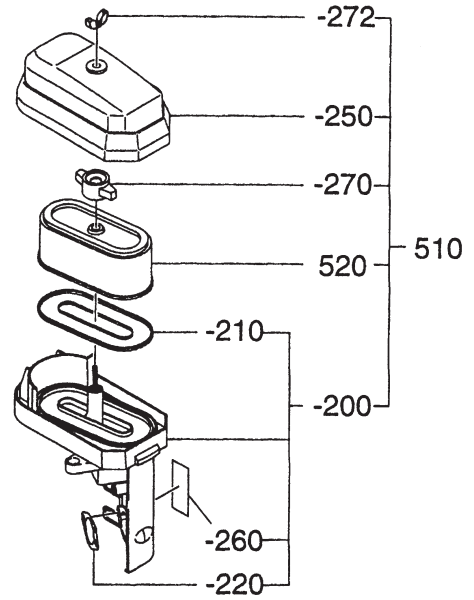
Foam

(A)



(B)

Dual Element



(C) Low Profile

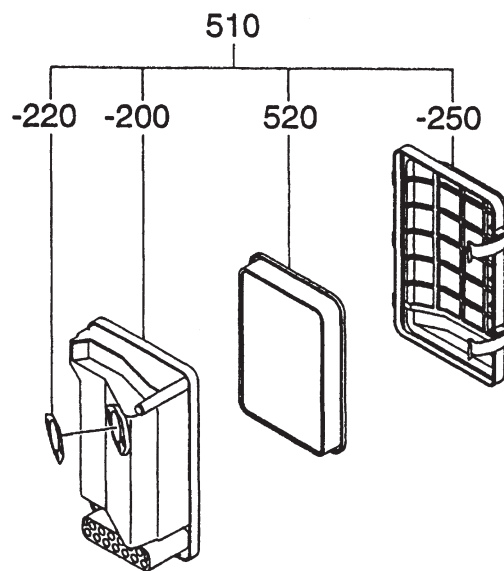


FIG. 4 GOVERNOR GROUP

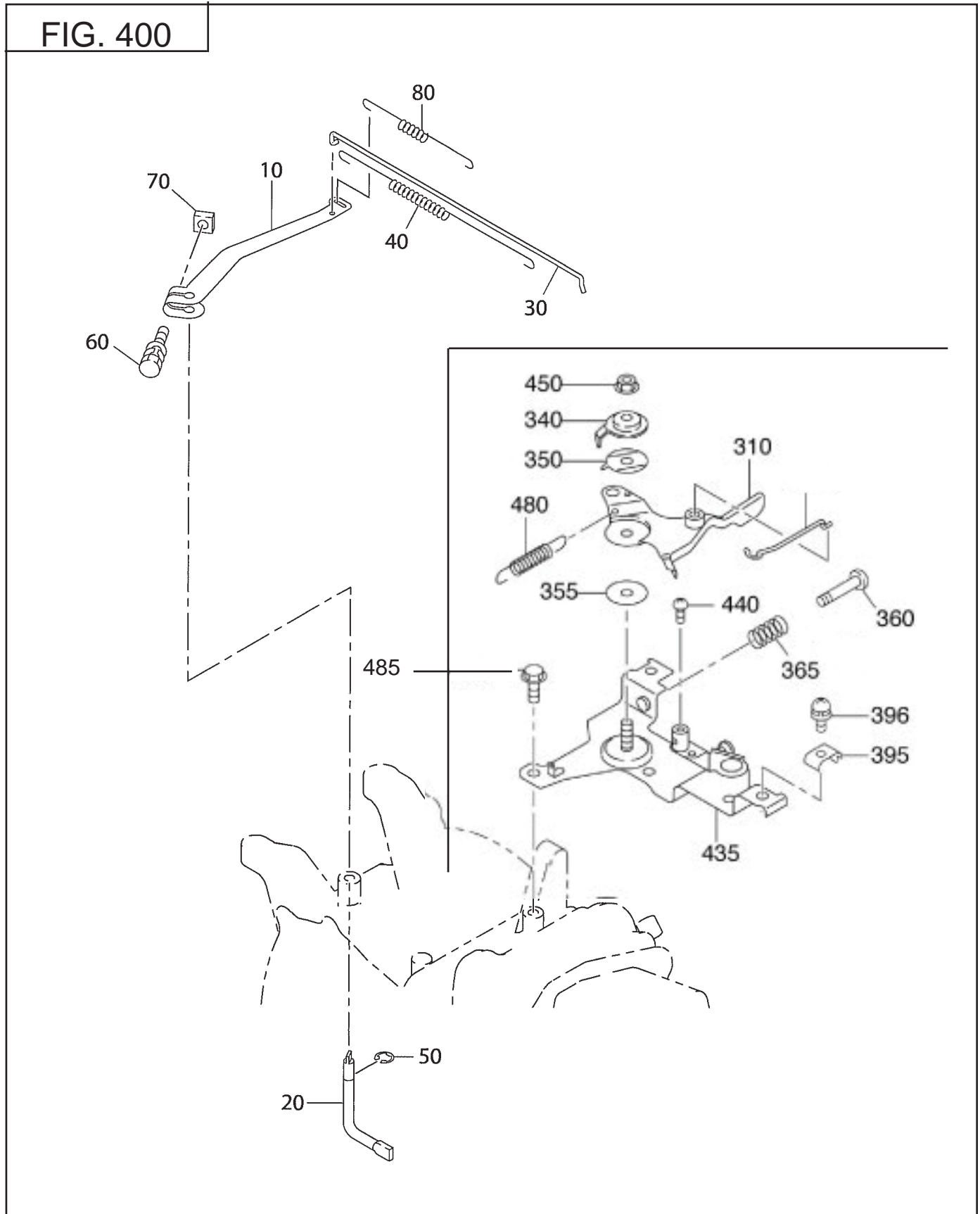


FIG. 4 GOVERNOR GROUP

Ref.	Part Number	Description	Qty	Remarks	To-From	Fig.
10	277-42301-33	GOVERNOR LEVER	1			400
20	277-42201-33	GOVERNOR SHAFT	1			400
30	277-42701-11	GOVERNOR ROD CP	1			400
40	277-42801-23	ROD SPRING	1			400
50	003-13050-00	CLIP	1			400
60	013-00602-40	BOLT & WASHER AY	1			400
70	018-60600-20	NUT	1			400
80	277-42510-13	GOVERNOR SPRING	1			400
310	277-43303-01	SPEED CONTROL LEVER CP	1	DT0011, DT1010		400
310	277-43303-03	SPEED CONTROL LEVER	1	DT1100, DT1110		400
310	277-76501-11	SPEED CONTROL CP	1	SP210		400
335	021-70600-70	FRICION WASHER	1			400
340	277-43502-03	STOP PLATE	1			400
350	277-44501-03	WASHER	1			400
355	021-70600-70	FRICION WASHER	1			400
360	004-31062-50	SCREW, PANHEAD	1			400
365	237-45004-23	SPRING, ADJUST	1			400
395	277-43902-03	CLAMP	1	DT0011, DT1010		400
396	013-10500-30	SCREW & WASHER AY	1	DT0011, DT1010		400
435	277-46002-01	SPEED CONTROL BRACKET CP	1	DT0011		400
435	277-46002-02	SPEED CONTROL BRACKET un	1	DT1100, DT1110, DT1010		400
440	004-31040-80	SCREW	1	DT0011, DT1010		400
450	002-35060-00	SELF LOCK NUT	1			400
480	277-45103-03	RETURN SPRING	1	DT0011, DT1010		400
485	011-00600-20	FLANGE BOLT	2			400
486	277-43701-01	LINK ROD CP	1			400
490	277-46003-20	SPEED CONTROL AY	1	Incl. the following items:		
				310, 340, 350, 355, 360,		
				365, 395, 396, 435, 440,		
				450, 480, 486		

FIG. 5 COOLING and STARTING GROUP

FIG. 500

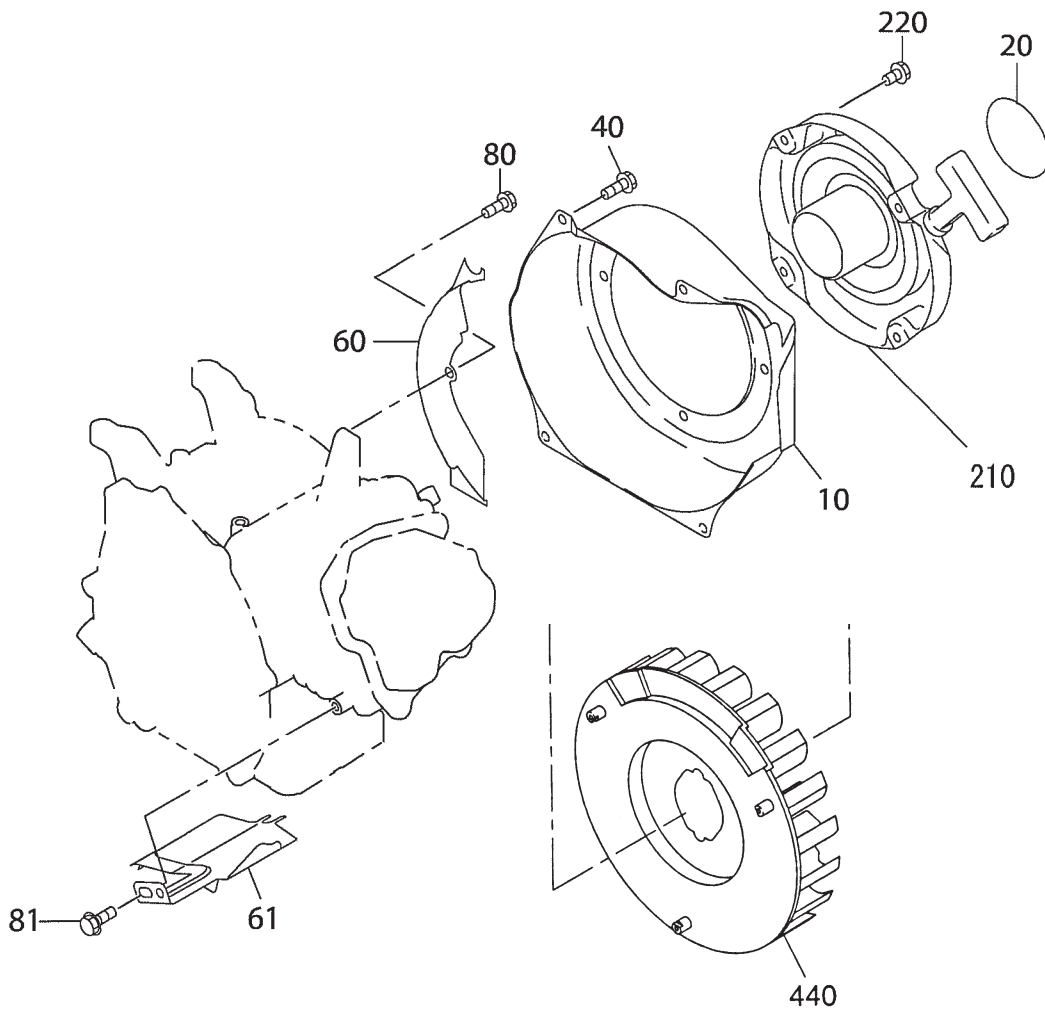


FIG. 5 COOLING and STARTING GROUP

Ref.	Part Number	Description	Qty	Remarks	To-From	Fig.
10	277-51202-01	BLOWER HOUSING	1			500
20	20A-09601-00	LABEL, TRADEMARK	1	SP170		500
20	073-20057-30	LABEL, TRADEMARK	1	SP210		500
25	073-20057-60	LABEL, WARNING	1			500
40	011-00600-30	FLANGE BOLT	1			500
60	277-52711-21	BAFFLE 1 CP, CASE	1			500
61	277-52702-03	BAFFLE 2, HEAD	1			500
62	278-55001-11	DUCT CP, CASE	1	SP210		500
80	001-04061-60	FLANGE BOLT	1			500
81	011-00600-20	FLANGE BOLT	1			500
82	011-00600-20	FLANGE BOLT	3	SP210		500
110	278-54111-H3	COOLING BLOWER	1	SP210		500
210A	269-50201-30	RECOIL STARTER AY	1	Includes cooling fan		500
210B	20A-50301-10	RECOIL STARTER AY	1			500
210	21D-50211-00	RECOIL STARTER AY	1	SP210		500
220A	011-00600-10	FLANGE BOLT	4	For use in 210A		500
220B	011-00600-30	FLANGE BOLT	4	For use in 210B		500
440	20A-54101-03	COOLING FAN	1	1010, 1011, 1030, 1040,	1050, 1110	500

FIG. 6 FUEL LUBRICANT GROUP - SP210

FIG. 600

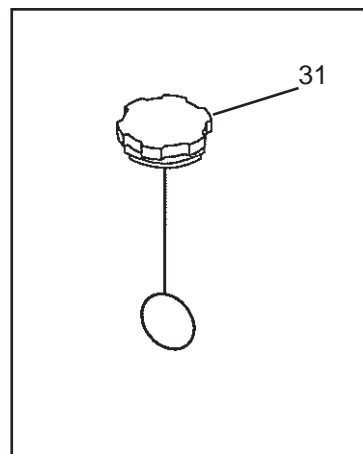
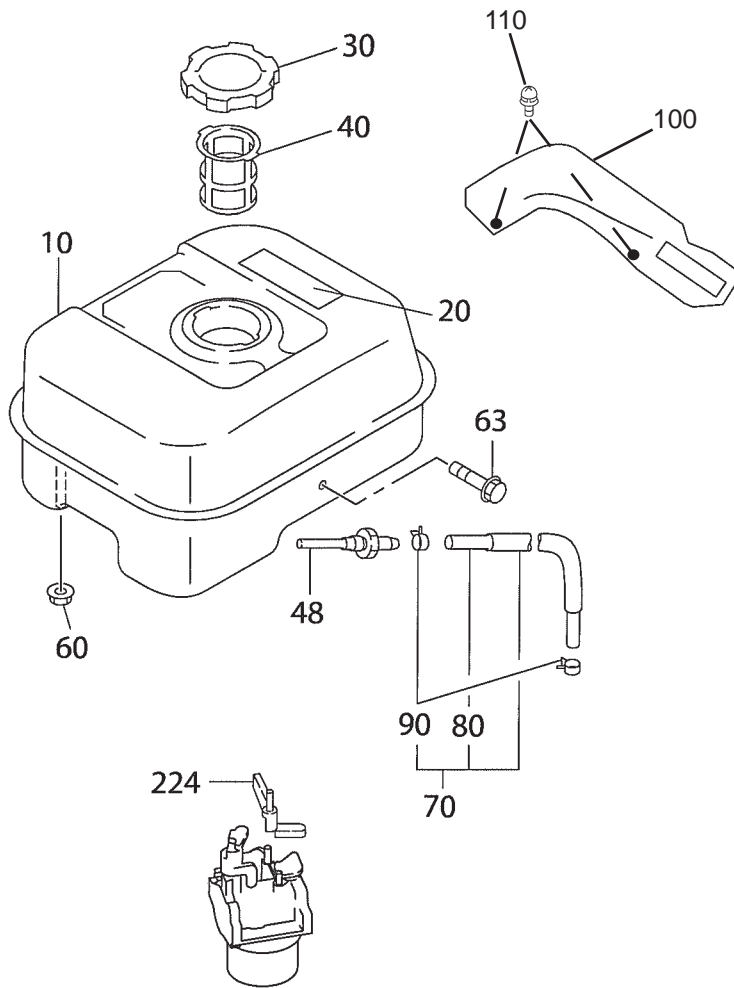


FIG. 6 FUEL LUBRICANT GROUP - SP210

Ref.	Part Number	Description	Qty	Remarks	To-From	Fig.
10	277-60102-11	FUEL TANK CP	1	used without item # 100		600
	20A-60211-11	FUEL TANK	1	used with item #100		600
20	073-20051-81	LABEL, WARNING	1			600
25	20A-09702-00	LABEL, MODEL	1	SP170		600
30	043-04300-60	FUEL TANK CAP CP	1	DT0011, DT1100		600
31	X43-04401-40	FUEL TANK CAP CP	1	DT1010, DT1040, DT1110, DT1030		600
40	X64-13600-10	FUEL FILTER	1			600
48	X50-51200-20	UNION	1			600
60	002-38060-00	FLANGE NUT	2			600
63	011-00601-30	FLANGE BOLT	1			600
70	277-62601-11	FUEL PIPE CP	1			600
80	X85-10613-51	RUBBER PIPE	1			600
90	X56-11100-60	HOSE CLAMP	2			600
100	20A-59001-13	COVER, FUEL TANK	1			600
110	20A-01501-00	SCREW AND WASHER	2			600
115	20A-01521-00	SCREW AND WASHER	1			600
224	277-43801-01	CHOKE LEVER	1			600

FIG. 6 FUEL LUBRICANT GROUP - SP170

FIG. 640

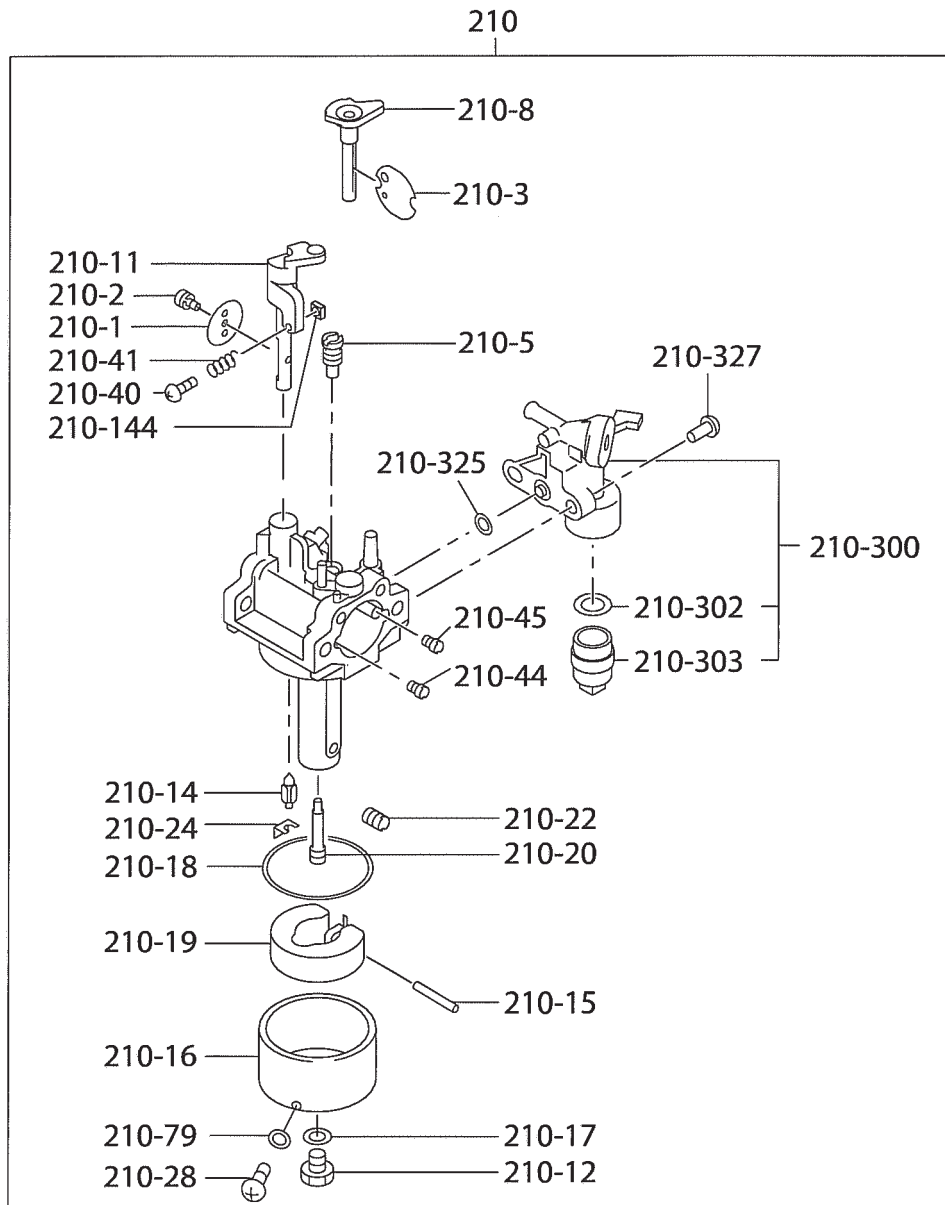


FIG. 6 FUEL LUBRICANT GROUP - SP170

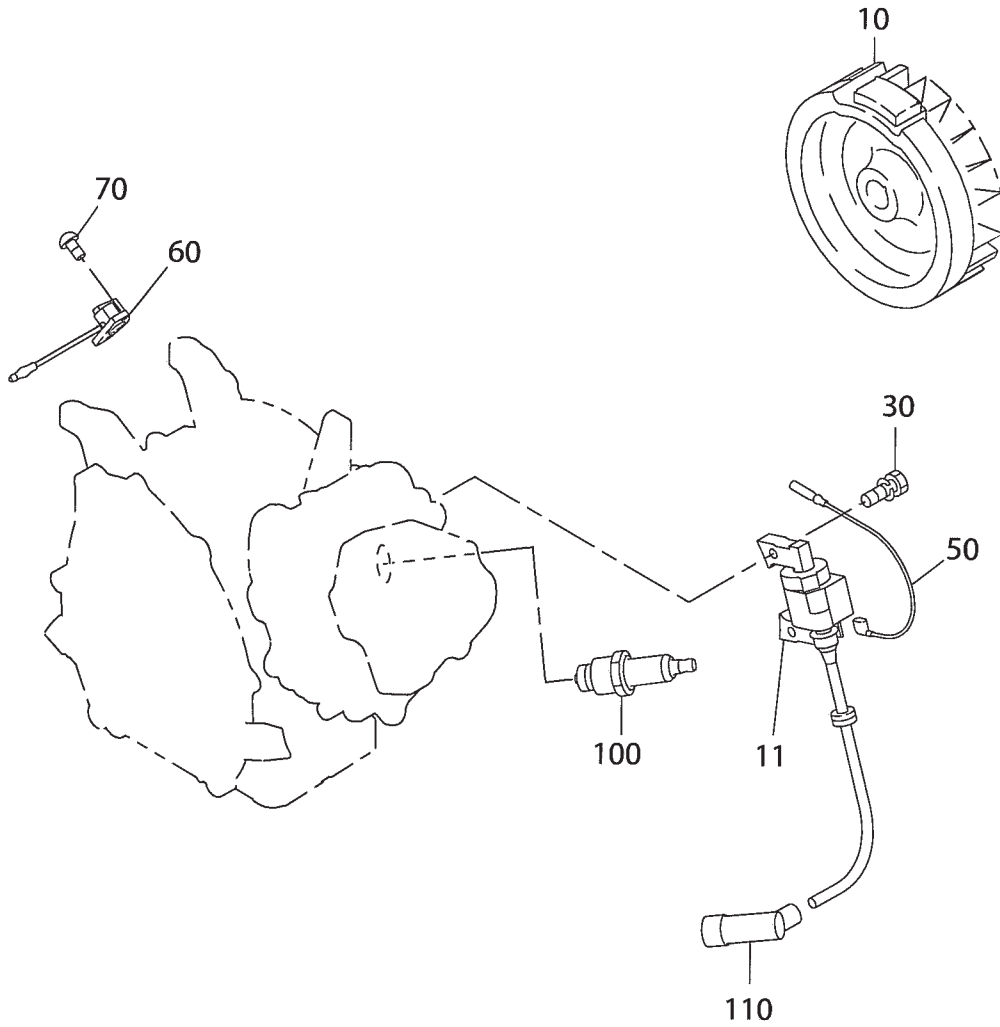
Ref.	Part Number	Description	Qty	Remarks	To-From	Fig.
210	277-62301-30	Carburetor Ay	1	Foam		640
210	277-62302-30	Carburetor Ay	1	Dual Element		640
210	277-62304-40	Carburetor Ay	1	Low Profile		640
-1	277-62535-08	Throttle Valve	1			640
-2	209-62351-08	Screw	1			640
-3	277-62525-08	Choke Valve	1	Foam, Dual Element		640
-3	277-62527-08	Choke Valve	1	Low Profile		640
-5	246-62420-08	Pilot Jet	1			640
-8	277-62520-08	Choke Lever	1	Foam, Dual Element		640
-8	277-62522-08	Choke Lever	1	Low Profile		640
-11	277-62530-18	Throttle Shaft A	1	Foam		640
-11	277-62531-18	Throttle Shaft A	1	Dual Element		640
-12	227-62451-08	Bolt	1			640
-14	277-62500-08	Needle	1			640
-15	277-62515-08	Pin	1			640
-16	277-62506-08	Float Body Ay	1			640
-17	214-62450-08	Packing	1			640
-18	214-62540-08	Chamber Packing	1			640
-19	226-62506-08	Float	1			640
-20	277-62440-08	Main Nozzle	1			640
-22	277-62402-08	Main Jet	1	Foam		640
-22	226-62412-08	Main Jet	1	Dual Element		640
-24	226-62701-18	Clip	1			640
-28	277-62360-08	Bolt	1			640
-40	106-62556-08	Screw	1			640
-41	283-62357-08	Spring	1			640
-44	248-62410-08	Air Jet	1			640
-45	106-62410-08	Air Jet, pilot	1			640
-62	236-62680-08	Seal	1			640
-79	236-62541-08	Packing	1			640
-102	246-62390-08	Seal	1	Dual Element, Low Profile		640
-144	277-62553-08	Nut	1			640
-300	279-62103-10	Fuel Strainer Ay	1			640
-302	277-62110-18	Packing	1			640
-303	277-62100-18	Cup	1			640
-325	277-62552-08	O ring	1			640
-327	165-62377-08	Screw	2			640

FIG. 6 FUEL LUBRICANT GROUP - SP210

FIG. 640

FIG. 7 ELECTRIC GROUP

FIG. 700



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