

# **PARTS MANUAL**

**Models**

**EX13, EX17, EX21  
ENGINE**

PUB-EP1676  
Rev. 09/08

# **Robin America, Inc.**

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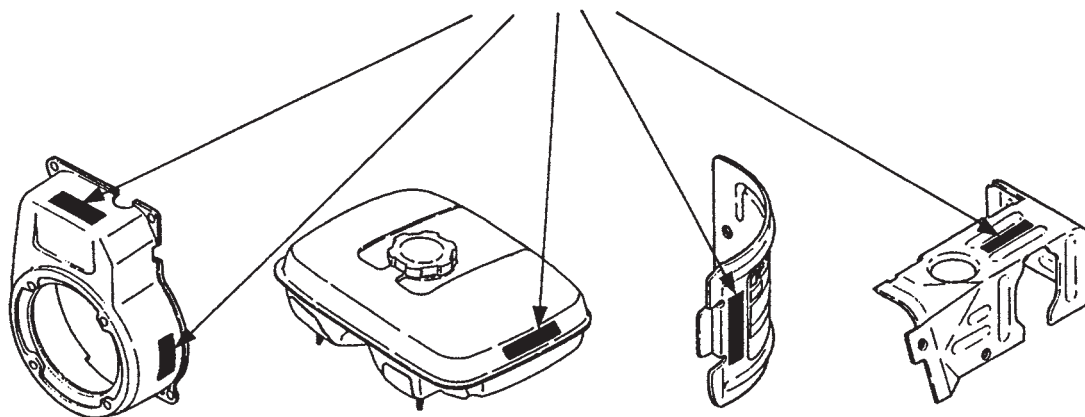
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## HOW TO USE THIS MANUAL

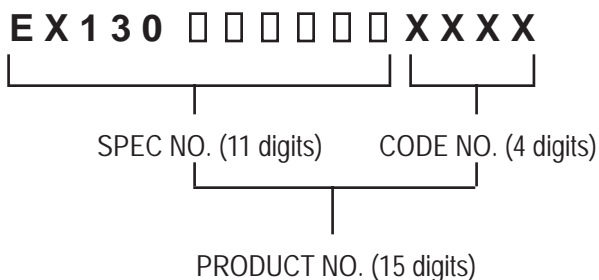
Robin engines are identified by MODEL, SPECIFICATION, and CODE NUMBER. For each model there may be many different versions called specifications. Each specification will be unique in some way. The difference may only be the paint color or it may have a different type of PTO or some other significant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

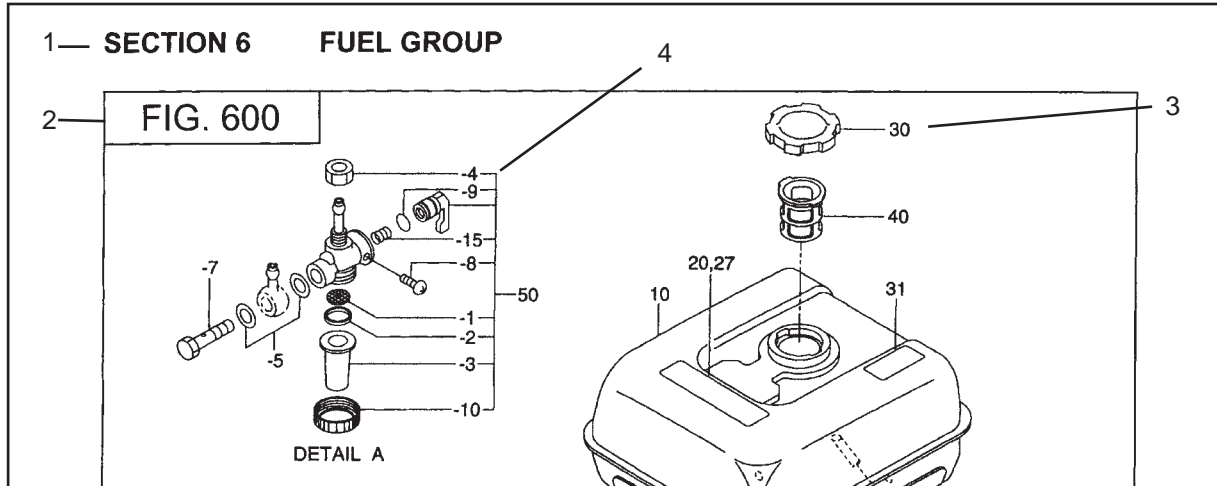
All Robin 4 cycle engines have a Product Number label similar to the label illustrated below.



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



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 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.

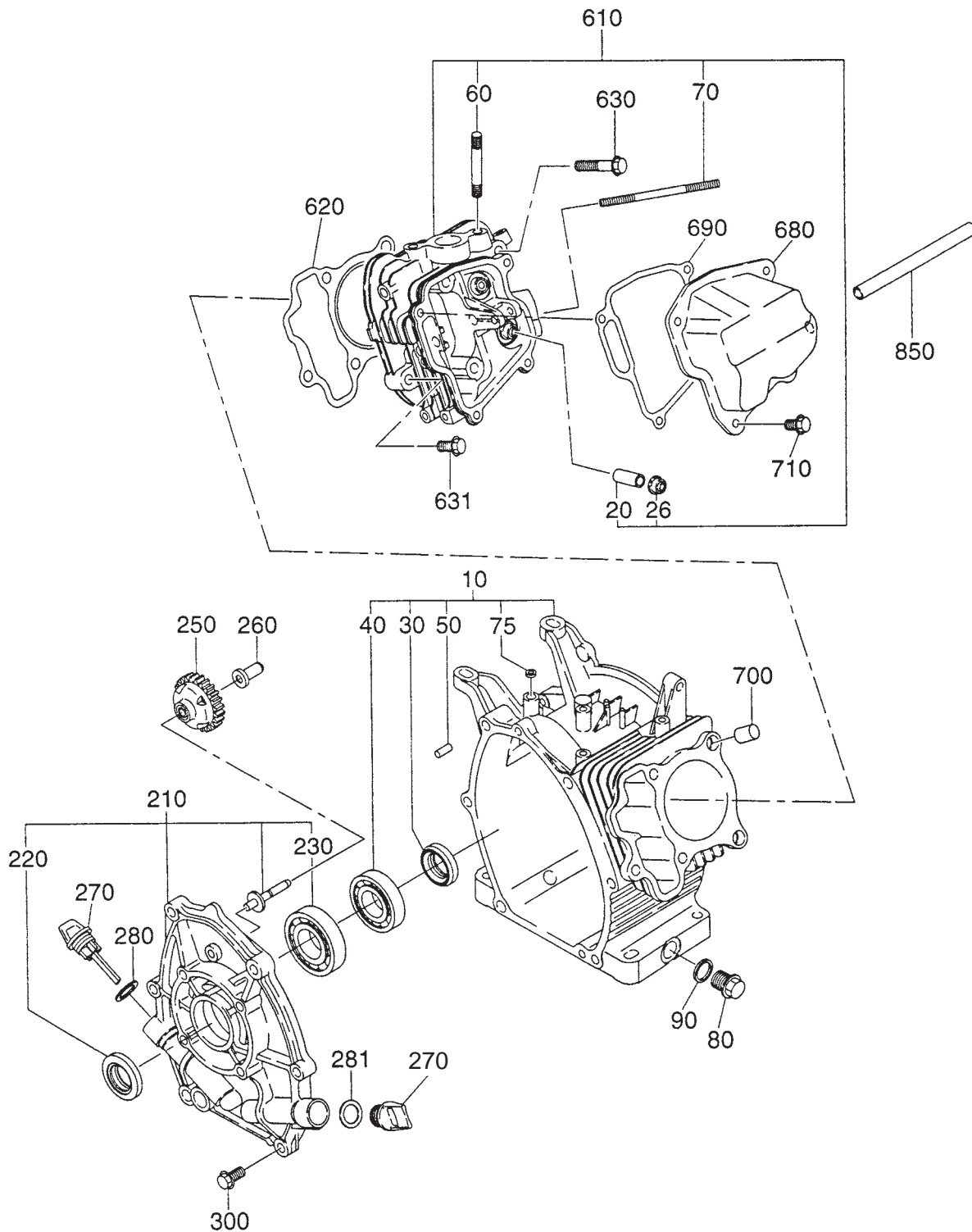
# GROUP INDEX

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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 CRANKCASE GROUP

FIG. 100

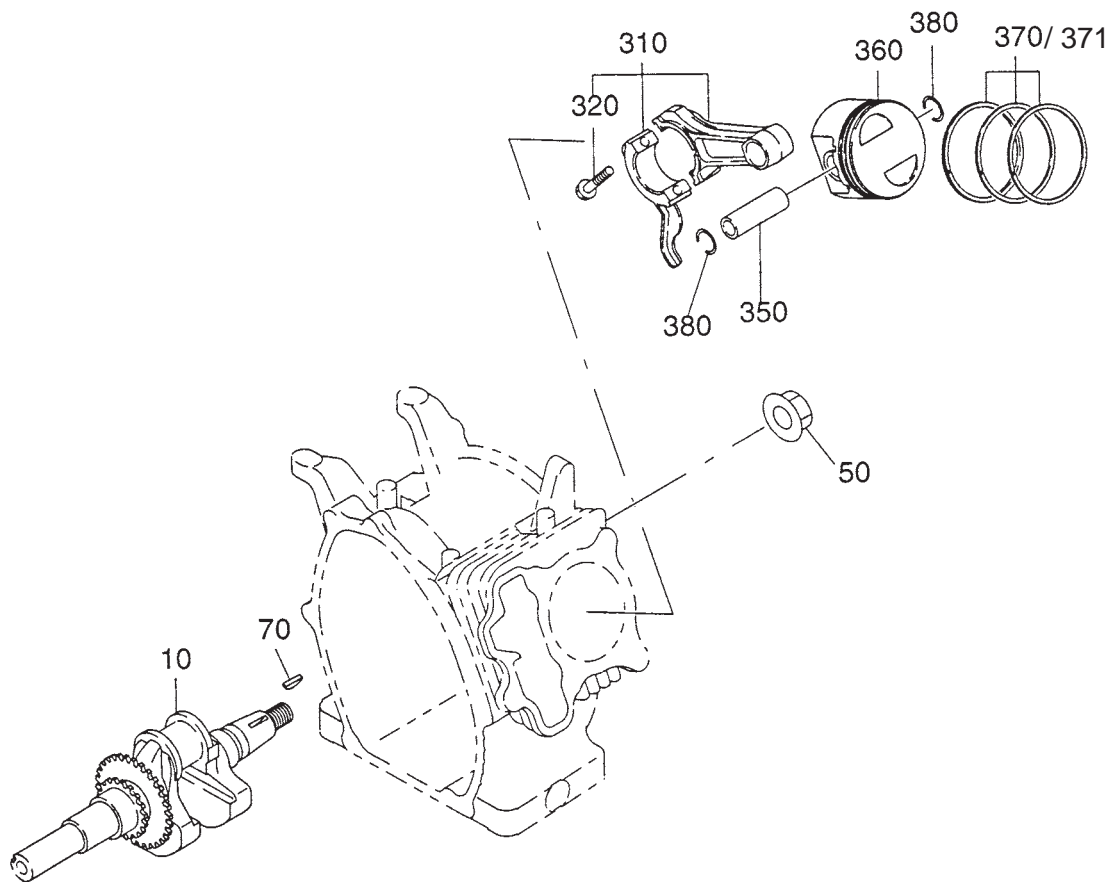


## SECTION 1 CRANKCASE GROUP

REF.	PART NO.	DESCRIPTION	QTY.	REMARKS	FROM-TO	FIG.
10	276-10101-41	Crankcase Cp	1	EX13, w/o oil sensor		100
	276-10102-41	Crankcase Cp	1	EX13, w/ oil sensor		100
10	277-10101-41	Crankcase Cp	1	EX17, w/o oil sensor		100
	277-10102-41	Crankcase Cp	1	EX17, w/ oil sensor		100
10	278-10101-41	Crankcase Cp	1	EX21, w/o oil sensor		100
	278-10102-41	Crankcase Cp	1	EX21, w/ oil sensor		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	060-02800-21	Ball Bearing	1			100
50	277-15011-03	Pipe Knock	2			100
60	010-50802-50	Stud	2	Exhaust		100
70	010-50603-51	Stud	2	Intake		100
75	044-00600-20	Oil Seal	1			100
80	040-11400-30	Plug	2			100
90	021-11400-20	Gasket	2			100
210	277-11002-21	Main Bearing Cover CP	1	SAE		100
	277-11001-31	Main Bearing Cover CP	1	Metric		100
220	044-02502-10	Oil Seal	1			100
230	060-02501-40	Ball Bearing	1			100
250	277-45004-J1	Governor Gear Cp	1			100
260	277-41901-03	Governor Sleeve	1			100
270	277-63601-23	Oil Gauge	2			100
280	021-31600-20	Gasket	1			100
281	021-31600-20	Gasket	1			100
300	001-04083-50	Flange Bolt	6			100
610	276-13001-11	Cylinder Head Cp	1	EX13, New Style	2100000~	100
	276-13001-01	Cylinder Head Cp	1	EX13, Old Style	~2099999	100
610	277-13001-11	Cylinder Head Cp	1	EX17, New Style	2100000~	100
	277-13001-01	Cylinder Head Cp	1	EX17, Old Style	~2099999	100
610	278-13001-11	Cylinder Head Cp	1	EX21, New Style	2100000~	100
	278-13001-01	Cylinder Head Cp	1	EX21, Old Style	~2099999	100
620	276-15001-33	Gasket, cylinder head	1	EX13		100
	277-15001-23	Gasket, cylinder head	1	EX17, 21		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
850	085-10800-00	Rubber Pipe	1			100
960	276-99001-27	Gasket Set	1	EX13		100
	277-99001-27	Gasket Set	1	EX17, 21		100
	EX0-20000-01	Gasket in a Tube	1			100

SECTION 2 CRANKSHAFT GROUP

FIG. 200



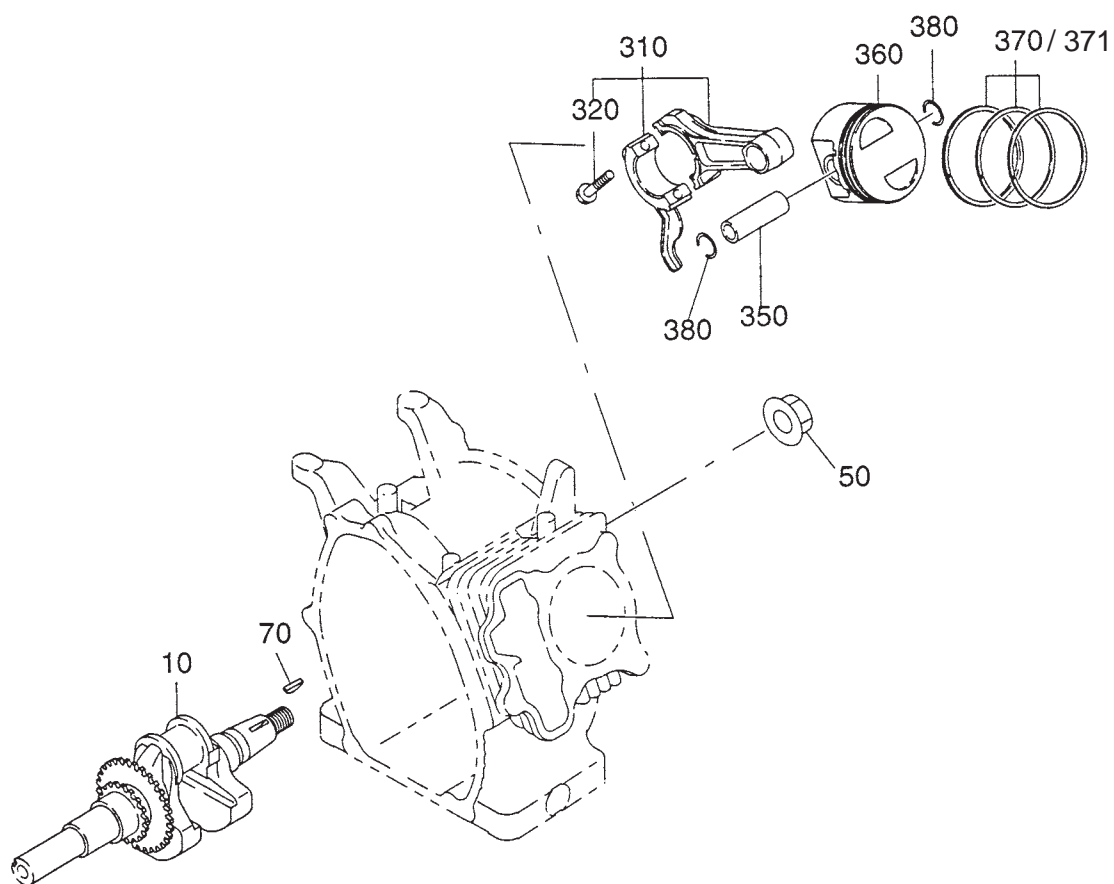


## SECTION 2 CRANKSHAFT GROUP

REF.	PART NO.	DESCRIPTION	QTY.	REMARKS	FROM-TO	FIG.
10	276-20901-41	Crankshaft Cp	1	EX13 - 3/4" key, 5/16 tap		200
	276-21001-21	Crankshaft Cp	1	EX13 - 5/8" Pump		200
	276-21201-21	Crankshaft Cp	1	EX13 - SAE Taper		200
	276-20201-51	Crankshaft Cp	1	EX13 - Metric 18mm		200
	276-20301-31	Crankshaft Cp	1	EX13 - Metric Pump 18mm		200
	276-20701-21	Crankshaft Cp	1	EX13 - Metric Taper		200
10	277-20901-51	Crankshaft Cp	1	EX17 - 3/4" key, 5/16 tap		200
	277-21001-21	Crankshaft Cp	1	EX17 - 5/8" Pump		200
	277-21201-21	Crankshaft Cp	1	EX17 - SAE Taper		200
	277-20201-41	Crankshaft Cp	1	EX17 - Metric 20mm		200
	277-20301-21	Crankshaft Cp	1	EX17 - Metric Pump 20mm		200
	277-20701-21	Crankshaft Cp	1	EX17 - Metric Taper		200
10	278-20901-61	Crankshaft Cp	1	EX21 - 3/4" key, 5/16 tap		200
	278-21001-31	Crankshaft Cp	1	EX21 - 5/8" Pump		200
	278-21201-31	Crankshaft Cp	1	EX21 - SAE Taper		200
	278-20201-51	Crankshaft Cp	1	EX21 - Metric 20mm		200
	278-20301-31	Crankshaft Cp	1	EX21 - Metric Pump 20mm		200
	278-20701-31	Crankshaft Cp	1	EX21 - Metric Taper		200
50	018-01400-20	Flange Nut	1			200
70	032-30300-10	Woodruff Key	1			200
310	276-22501-10	Connecting Rod Ay	1	EX13 - STD		200
	276-22502-00	Connecting Rod Ay	1	EX13 - Undersize 0.25mm		200
310	277-22501-10	Connecting Rod Ay	1	EX17 - STD		200
	277-22502-00	Connecting Rod Ay	1	EX17 - Undersize 0.25mm		200
310	278-22501-10	Connecting Rod Ay	1	EX21 - STD		200
	278-22502-00	Connecting Rod Ay	1	EX21 - Undersize 0.25mm		200
320	277-23001-03	Connecting Rod Bolt	2			200
350	276-23301-13	Piston Pin	1	EX13		200
	277-23301-13	Piston Pin	1	EX17, 21		200
360	276-23401-H3	Piston	1	EX13 - STD		200
	276-23403-H3	Piston	1	EX13 - Oversize 0.25mm		200
	276-23404-H3	Piston	1	EX13 - Oversize 0.50mm		200
360	277-23401-J3	Piston	1	EX17, 21 - STD		200
	277-23403-J3	Piston	1	EX17, 21 - Oversize 0.25mm		200
	277-23404-J3	Piston	1	EX17, 21 - Oversize 0.50mm		200
370	276-23511-17	Piston Ring Set	1	EX13 - STD		200
	276-23512-17	Piston Ring Set	1	EX13 - Oversize 0.25mm		200
	276-23513-17	Piston Ring Set	1	EX13 - Oversize 0.50mm		200
370	277-23511-17	Piston Ring Set	1	EX17, 21 - STD		200
	277-23512-17	Piston Ring Set	1	EX17, 21 - Oversize 0.25mm		200
	277-23513-17	Piston Ring Set	1	EX17, 21 - Oversize 0.50mm		200
371	276-23531-07	Piston Ring Set - DE	1	EX13 - STD		200
	276-23532-07	Piston Ring Set - DE	1	EX13 - Oversize 0.25mm		200
	276-23533-07	Piston Ring Set - DE	1	EX13 - Oversize 0.50mm		200

SECTION 2 CRANKSHAFT GROUP

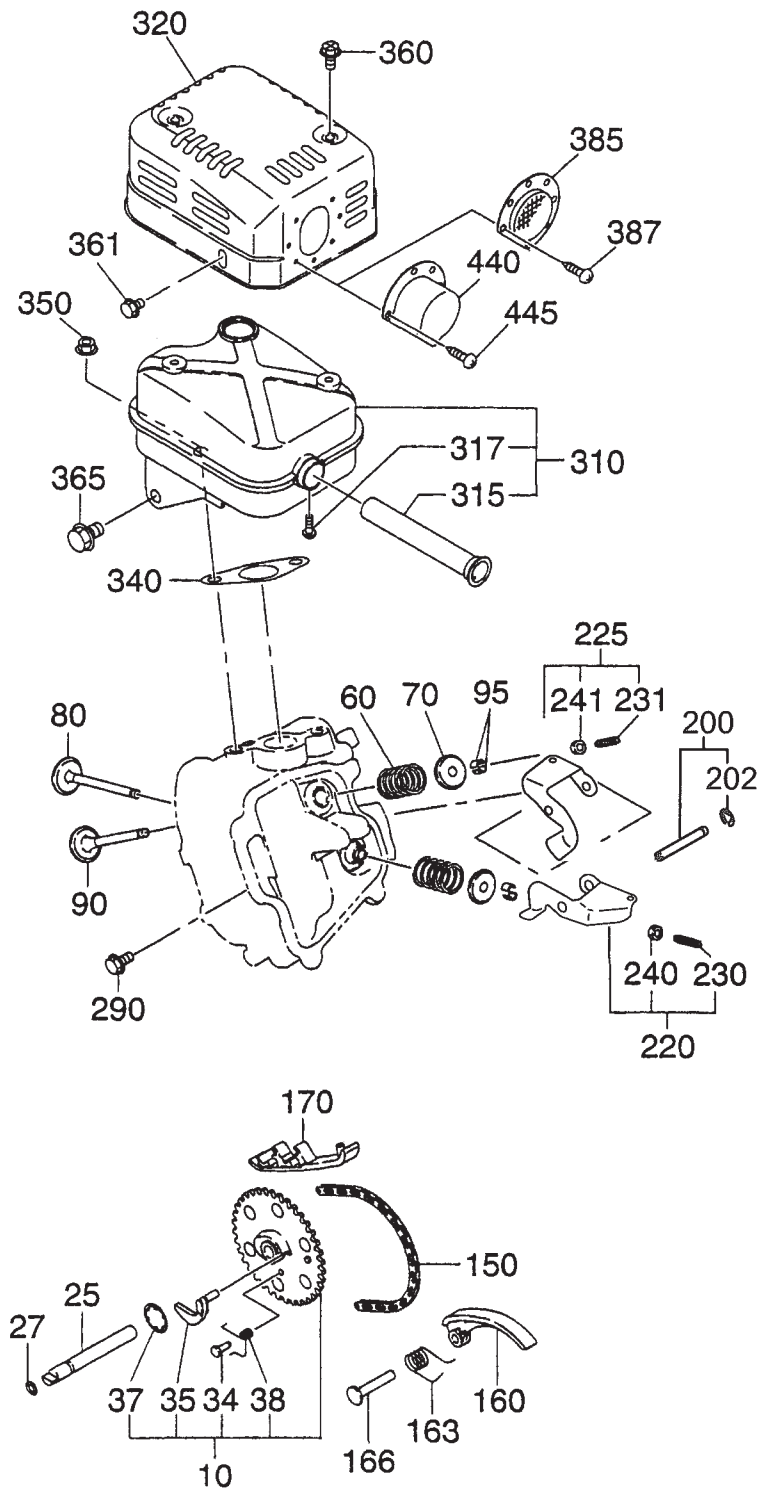
FIG. 200





SECTION 3 INTAKE and EXHAUST GROUP - New Style

FIG. 300

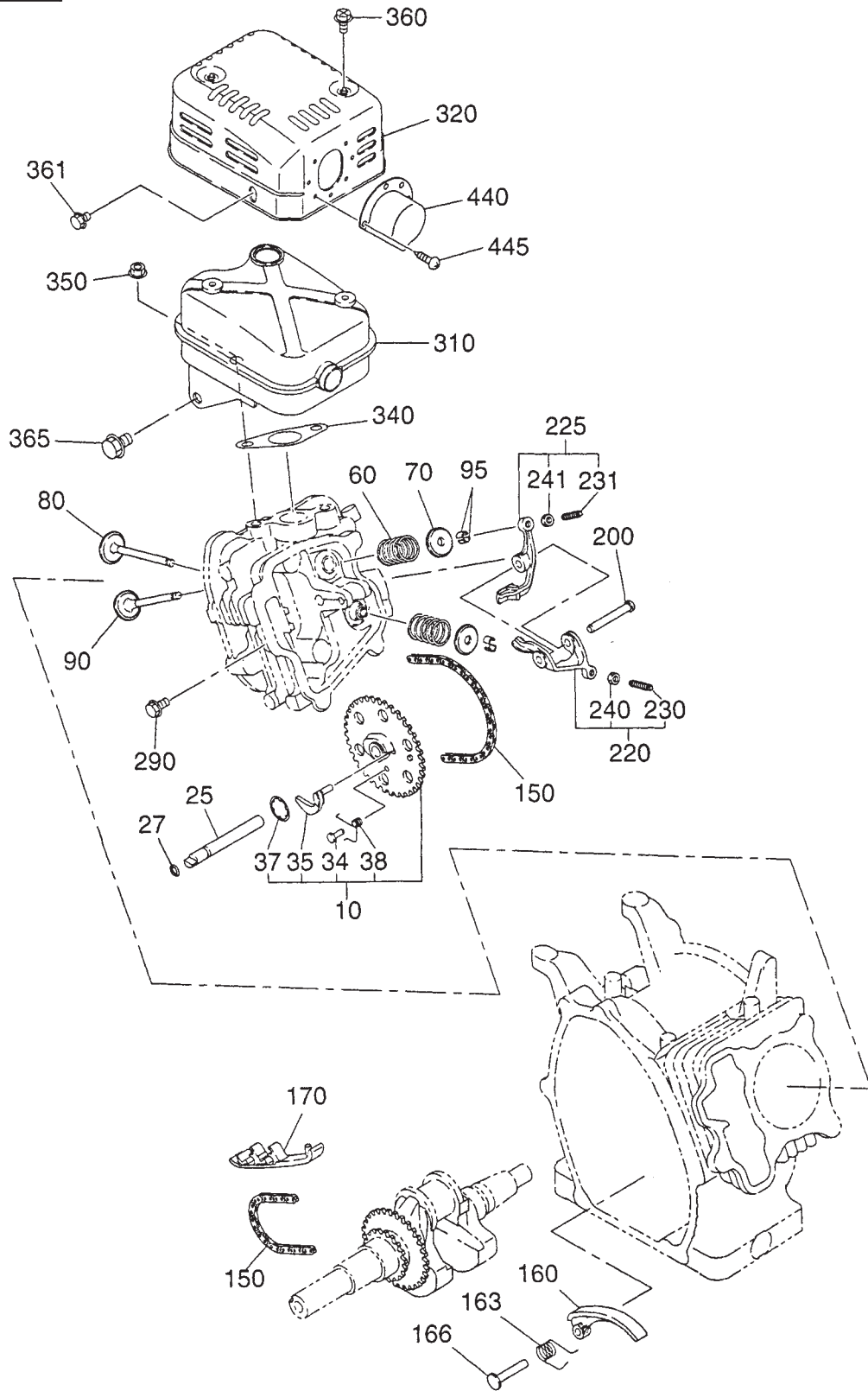


## SECTION 3 INTAKE and EXHAUST GROUP - New Style

REF.	PART NO.	DESCRIPTION	QTY.	REMARKS	FROM-TO	FIG.
10	277-31601-31	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	277-36401-03	Release Lever	1		2100000~	300
37	277-36501-03	Clip	1		2100000~	300
38	277-38702-03	Return Spring	1		2100000~	300
60	279-33601-03	Valve Spring	2		2100000~	300
70	269-33701-03	Spring Retainer	2		2100000~	300
80	276-33401-H3	Intake Valve	1	EX13	2100000~	300
	277-33401-H3	Intake Valve	1	EX17, 21	2100000~	300
90	276-33501-H3	Exhaust Valve	1	EX13	2100000~	300
	277-33501-H3	Exhaust Valve	1	EX17, 21	2100000~	300
95	132-10KA0-31	Collet Valve	4		2100000~	300
150	276-35601-11	Timing Chain	1	EX13 - 86 Link	2100000~	300
	277-35601-11	Timing Chain	1	EX17 - 88 Link	2100000~	300
	278-35601-11	Timing Chain	1	EX21 - 92 Link	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	277-35002-01	Pin, rocker	1		2100000~	300
202	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	276-30111-J1	Muffler Cp	1	EX13	2100000~	300
	277-30111-J1	Muffler Cp	1	EX17,21	2100000~	300
	276-30112-H1	Muffler Cp	1	50 State - EX13	2100000~	300
	277-30112-H1	Muffler Cp	1	50 State - EX17, 21	2100000~	300
315	277-37601-01	Spark Arrester Cp	1		2100000~	300
317	015-00400-60	Tapping Screw	1		2100000~	300
320	276-34201-21	Muffler Cover	1	EX13	2100000~	300
	277-34201-31	Muffler Cover	1	EX17, 21	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	011-00803-20	Flange Bolt	1		2100000~	300
385	277-37203-H1	Screen Cp	1		2100000~	300
387	015-00400-60	Tapping Screw	2		2100000~	300
440	277-37001-H1	Deflector Cp	1	Incl. screen	2100000~	300
445	015-00400-60	Tapping Screw	2		2100000~	300

SECTION 3 INTAKE and EXHAUST GROUP - Old Style

FIG. 300



### SECTION 3 INTAKE and EXHAUST GROUP - Old Style

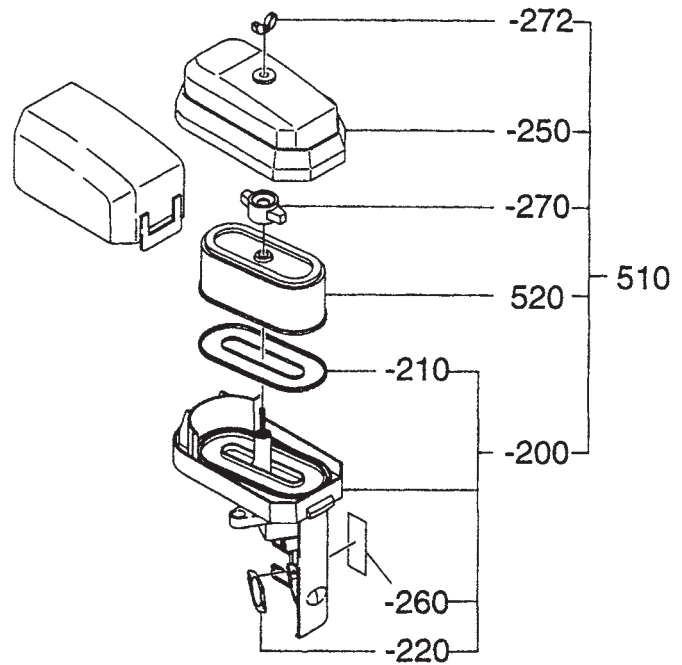
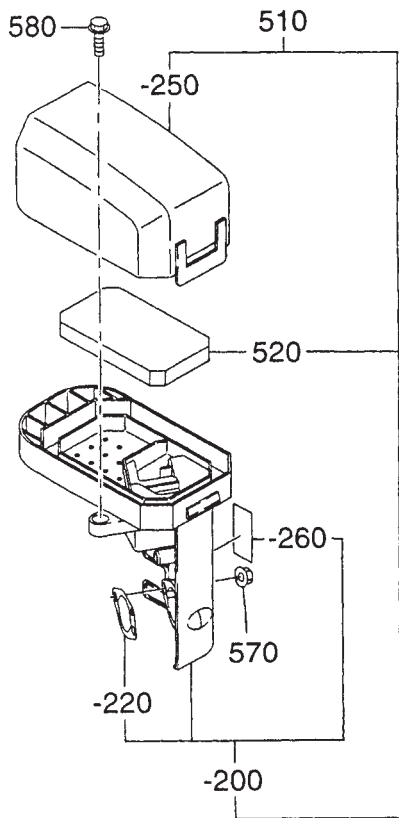
REF.	PART NO.	DESCRIPTION	QTY.	REMARKS	FROM-TO	FIG.
10	277-31601-01	Camshaft Cp	1		~2099999	300
25	277-35101-03	Pin, Camshaft	1		~2099999	300
27	024-00600-10	O ring	1		~2099999	300
34	277-38601-03	Pin, spring	1		~2099999	300
35	277-36401-03	Release Lever	1		~2099999	300
37	277-36501-03	Clip	1		~2099999	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	276-33501-33	Intake Valve	1	EX13	~2099999	300
	277-33401-13	Intake Valve	1	EX17,EX21	~2099999	300
90	276-33501-33	Exhaust Valve	1	EX13	~2099999	300
	277-33501-13	Exhaust Valve	1	EX17,EX21	~2099999	300
95	132-10KA0-31	Collet Valve	4		~2099999	300
150	276-35601-01	Timing Chain	1	EX13	~2099999	300
	277-35601-01	Timing Chain	1	EX17	~2099999	300
	278-35601-01	Timing Chain	1	EX21	~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, exhaust	1		~2099999	300
225	277-36102-00	Rocker Arm Ay, intake	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	276-30101-11	Muffler	1	EX13	~2099999	300
	277-30101-11	Muffler	1	EX17	~2099999	300
	278-30101-11	Muffler	1	EX21	~2099999	300
310	276-30111-01	Muffler	1	EX13 w/ spark arrester	~2099999	300
	277-30111-01	Muffler	1	EX17,21 w/spark arrester	~2099999	300
315	277-37601-01	Spark Arrester	1		~2099999	300
317	015-00400-60	Tapping Screw	1		~2099999	300
320	277-34201-01	Muffler Cover	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

SECTION 3 INTAKE and EXHAUST GROUP

FIG. 310

A

B



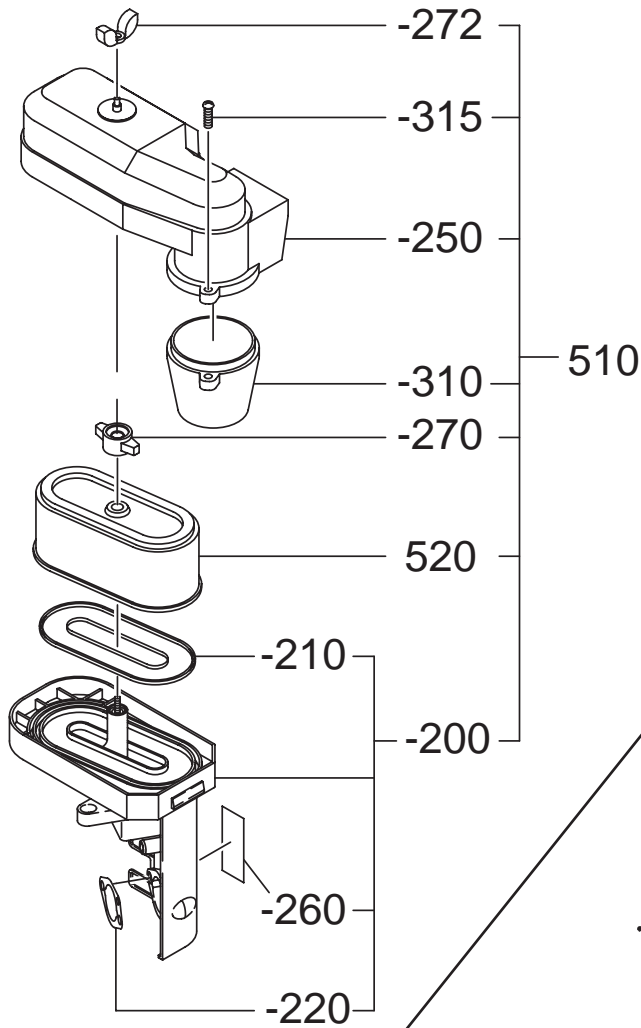


## SECTION 3 INTAKE and EXHAUST GROUP

REF.	PART NO.	DESCRIPTION	QTY.	REMARKS	FROM-TO	FIG.
510	277-32611-10	Air Cleaner Ay	1	Foam		315A
	277-32615-20	Air Cleaner Ay	1	Dual Element	2100000~	315B
	277-32612-00	Air Cleaner Ay	1	Dual Element	~2099999	315B
-200	277-32601-18	Base	1	Foam		315A
	277-32630-18	Base	1	Dual Element	2100000~	315B
	277-32605-08	Base	1	Dual Element	~2099999	315B
-210	277-32610-08	Packing	1	Dual Element	~2099999	315B
-220	277-32604-08	Gasket	1			315
-250	277-32602-08	Cover	1	Foam		315A
	277-32640-08	Cover	1	Dual Element	2100000~	315B
	277-32602-08	Cover	1	Dual Element	~2099999	inset
-260	277-32609-08	Label	1			315
-270	277-32741-18	Wing Nut	1	Dual Element		311B
	277-32607-08	Wing Nut	1	Dual Element		315B
-290	277-32740-08	Wing Nut	1	Dual Element		
520	277-32603-08	Element	1	Foam		315A
	277-32611-07	Element	1	Dual Element		315B
570	002-38060-00	Flange Nut	2			315
580	011-00600-50	Flange Bolt	1			315

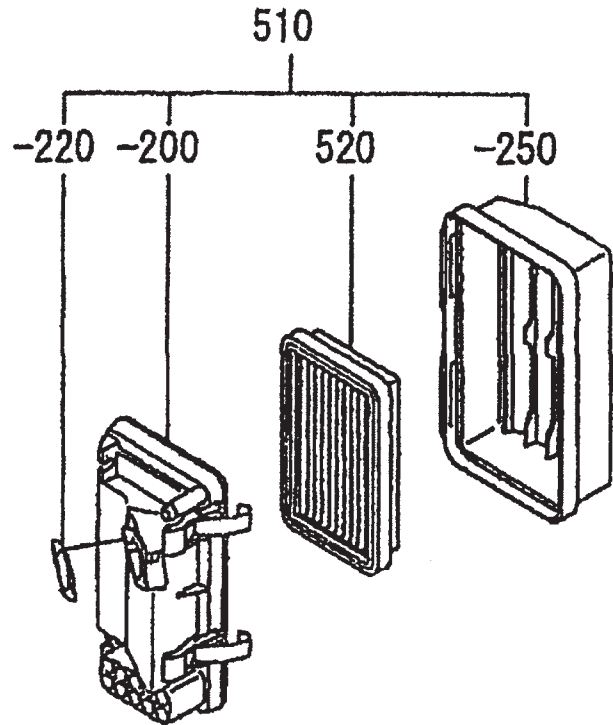
SECTION 3 INTAKE and EXHAUST GROUP

FIG. 320



(A)

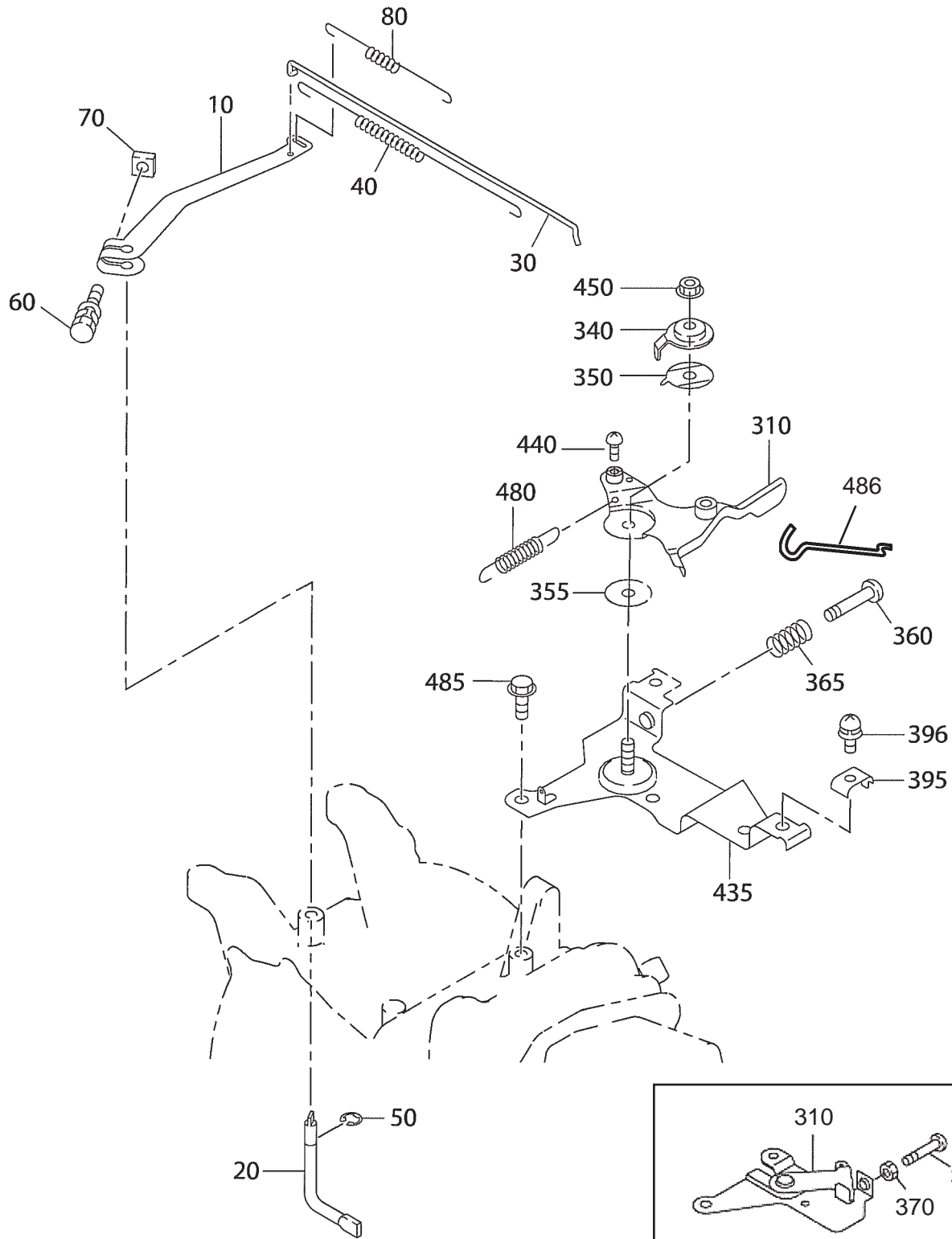
(B)





SECTION 4 GOVERNOR GROUP - New Style

FIG. 400

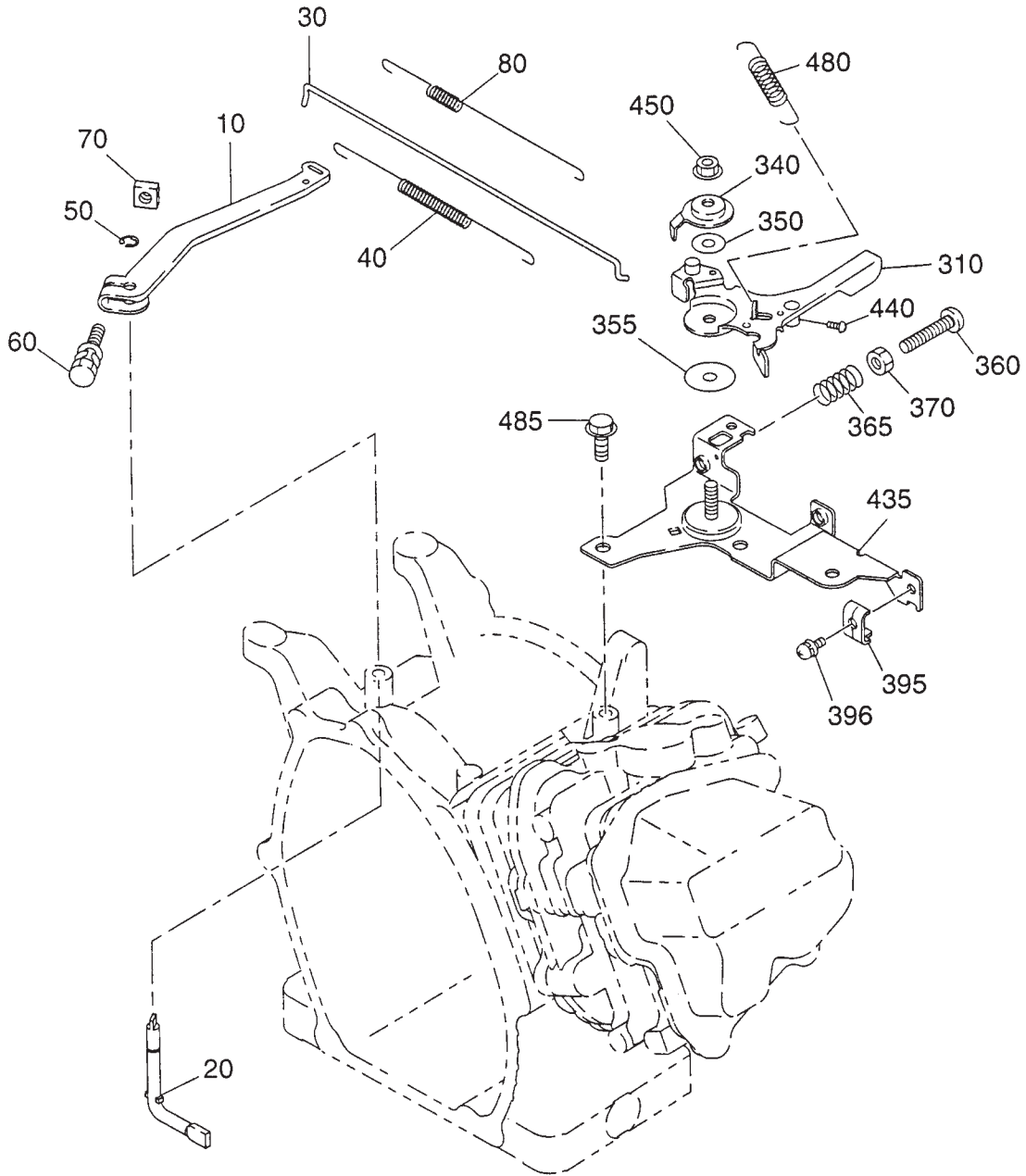


## SECTION 4 GOVERNOR GROUP - New Style

REF.	PART NO.	DESCRIPTION	QTY.	REMARKS	FROM-TO	FIG.
10	277-42301-43	Governor Lever	1			400
20	277-42201-33	Governor Shaft	1			400
30	279-42701-11	Governor Rod	1	EX13		400
	277-42701-11	Governor Rod	1	EX17, 21		400
40	277-42801-23	Rod Spring	1			400
50	003-13050-00	Clip	1			400
60	013-00602-40	Bolt and 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	1	Std		400
	277-46501-11	Speed Control Lever CP	1	Generator		400
340	277-43502-03	Stop Plate	1			400
350	277-44501-03	Washer	1			400
355	021-70600-70	Friction Washer	1			400
360	004-31062-50	Screw	1	Std		400
	004-31064-00	Screw	1	Generator		400
365	237-45004-23	Spring, adjust	1			400
370	002-17060-00	Nut	1	Generator		400
395	277-43902-03	Clamp	1			400
396	013-10500-30	Screw and Washer Ay	1			400
435	277-46002-01	Speed Control Bracket	1			400
440	004-31040-80	Screw	1			400
450	002-35060-00	Self Lock Nut	1			400
480	277-45103-03	Return Spring	1			400
485	011-00600-20	Flange Bolt	2			400
486	277-43701-01	Link Rod Cp	1			400
	277-46003-20	Speed Control Ay	1	Manual		400
	277-46003-20	Speed Control Ay	1	Remote		400

SECTION 4 GOVERNOR GROUP - Old Style

FIG. 400

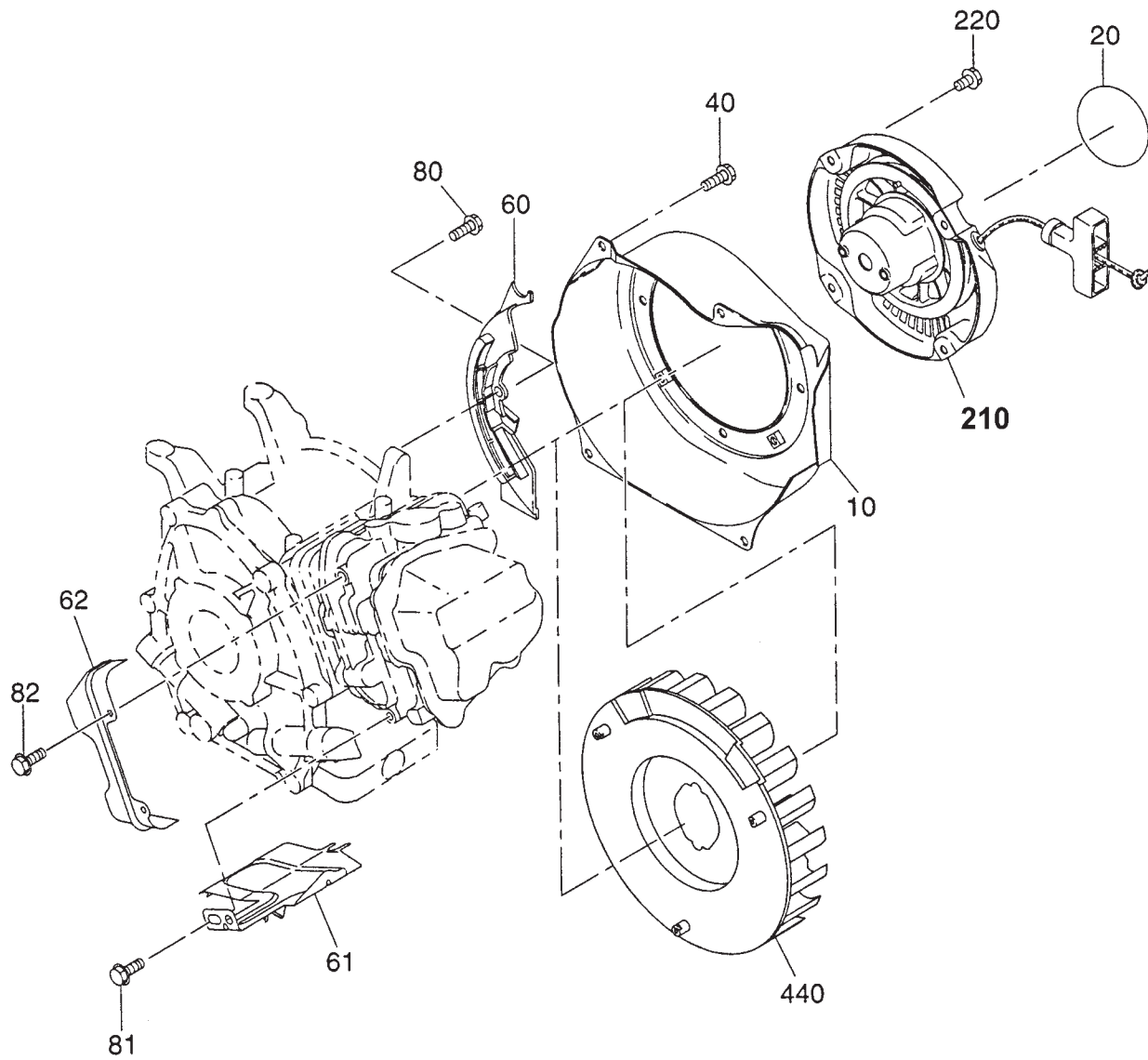


**SECTION 4 GOVERNOR GROUP - Old Style**

<b>REF.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>QTY.</b>	<b>REMARKS</b>	<b>FROM-TO</b>	<b>FIG.</b>
10	277-42301-13	Governor Lever	1		~2099999	400
20	277-42201-33	Governor Rod	1		~2099999	400
30	279-42701-01	Governor Rod	1	EX13	~2099999	400
30	277-42701-01	Governor Rod	1	EX17, EX21	~2099999	400
40	277-42801-13	Rod Spring	1		~2099999	400
50	003-13050-00	Clip	1		~2099999	400
60	001-14062-50	Bolt and Washer	1		~2099999	400
70	018-60600-20	Nut	1		~2099999	400
80	279-42502-23	Governor Spring	1		~2099999	400
310	277-43302-01	Speed Control Lever	1		~2099999	400
340	277-43501-03	Stop Plate	1		~2099999	400
350	020-00601-70	Washer	1		~2099999	400
355	021-70600-70	Friction Washer	1		~2099999	400
360	014-00601-80	Screw	1		~2099999	400
365	237-45004-23	Spring	1		~2099999	400
370	002-17060-00	Nut	1		~2099999	400
395	277-43901-03	Clamp	1		~2099999	400
396	004-36051-60	Screw and Washer	1		~2099999	400
435	277-46001-01	Speed Control Bracket	1		~2099999	400
440	004-31040-80	Screw	1		~2099999	400
450	002-35060-00	Self Lock Nut	1		~2099999	400
480	277-45101-03	Return Spring	1		~2099999	400
485	011-00600-20	Flange Bolt	2		~2099999	400
*	277-45001-20	Speed Control Ay	1		~2099999	400

SECTION 5 COOLING and STARTING GROUP

FIG. 500



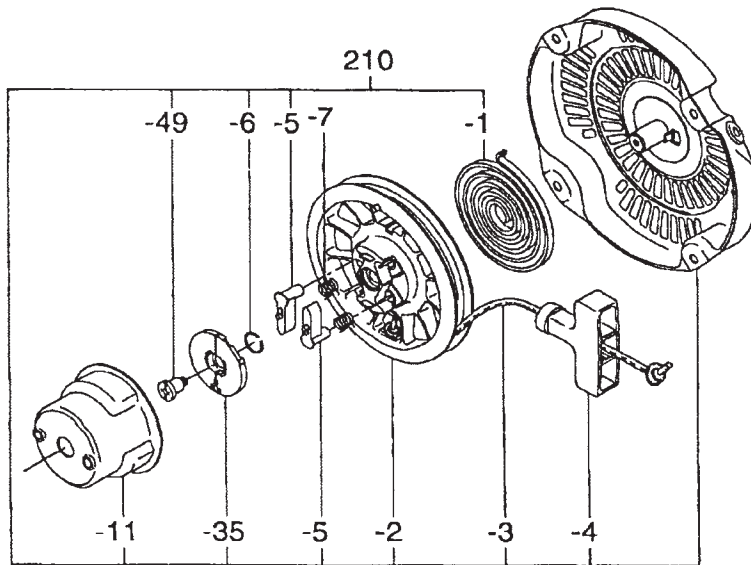


## SECTION 5      COOLING and STARTING GROUP

REF.	PART NO.	DESCRIPTION	QTY.	REMARKS	FROM-TO	FIG.
10	276-51202-01	Blower Housing Cp	1	EX13 - Black		500
	276-51201-01	Blower Housing Cp	1	EX13 - Yellow		500
10	277-51202-01	Blower Housing Cp	1	EX17 - Recoil, black		500
	277-51201-01	Blower Housing Cp	1	EX17 - Recoil, yellow		500
	277-51252-01	Blower Housing Cp	1	EX17 - Electric Start, black		500
	277-51251-01	Blower Housing Cp	1	EX17 - Electric Start, yellow		500
10	278-51202-01	Blower Housing Cp	1	EX21 - Recoil, black		500
	278-51201-01	Blower Housing Cp	1	EX21 - Recoil, yellow		500
	278-51252-01	Blower Housing Cp	1	EX21 - Electric Start, black		500
	278-51251-01	Blower Housing Cp	1	EX21 - Electric Start, yellow		500
20	073-20054-70	Label, trademark	1			500
40	011-00600-30	Flange Bolt	4			500
60	277-52711-21	Baffle 1 Cp, case	1			500
61	277-52702-03	Baffle 2, head	1			500
62	278-52701-03	Baffle 3	1	EX21		500
80	001-04061-60	Flange Bolt	1			500
81	011-00600-20	Flange Bolt	1			500
82	015-20500-10	Tapping Screw	2	EX21		500
110	278-54101-03	Cooling Blower	1	EX21		500
210	268-50201-30	Recoil Starter Ay	1	EX13		500
	269-50201-30	Recoil Starter Ay	1	EX17		500
	278-50201-20	Recoil Starter Ay	1	EX21		500
220	011-00600-10	Flange Bolt	4			500
400	278-54101-03	Cooling Blower	1			500

SECTION 5 COOLING and STARTING GROUP

FIG. 510



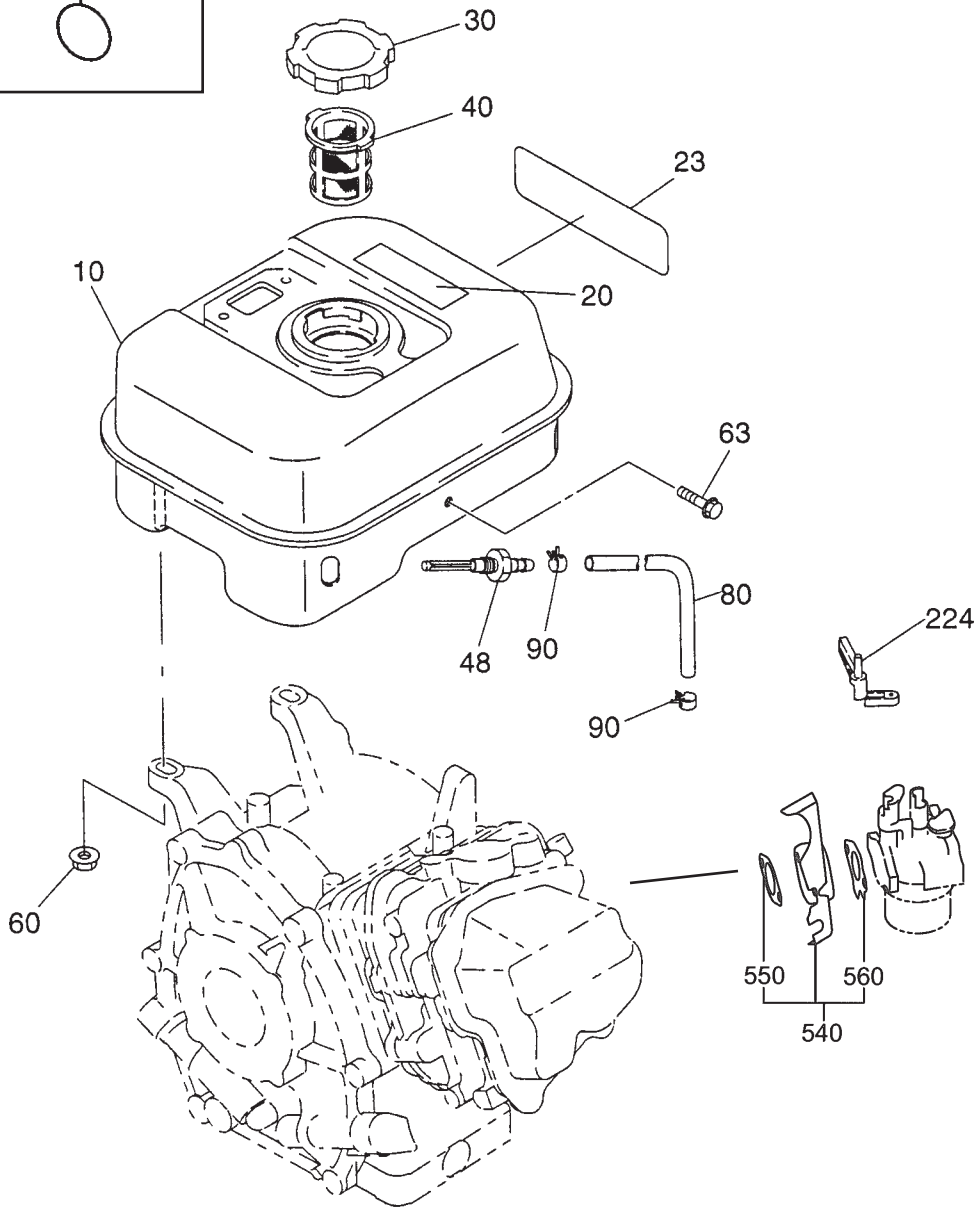
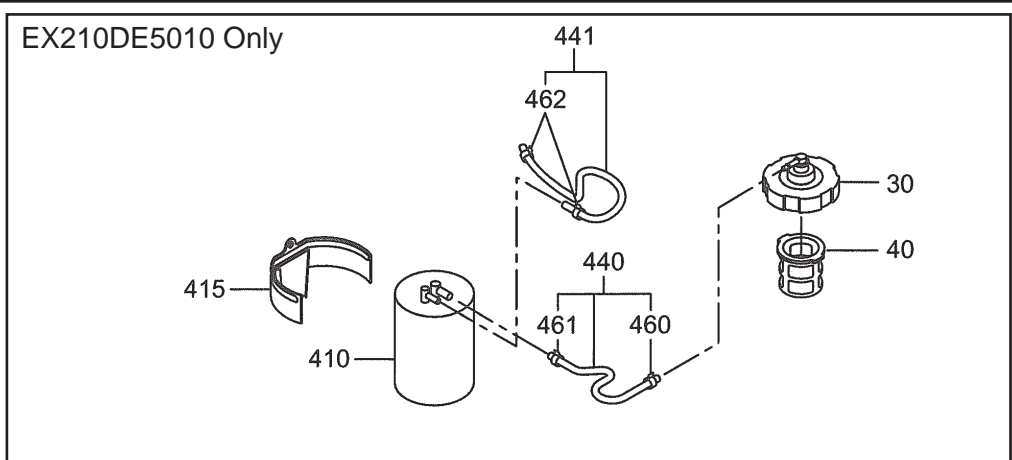
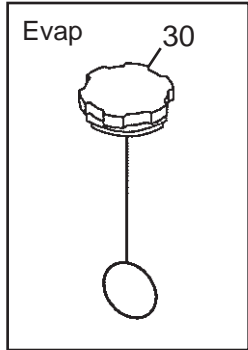
**SECTION 5      COOLING and STARTING GROUP**

REF.	PART NO.	DESCRIPTION	QTY.	REMARKS	FROM-TO	FIG.
210	268-50201-30	Recoil Starter Ay	1	EX13		510
	269-50201-30	Recoil Starter Ay	1	EX17		510
	278-50201-20	Recoil Starter Ay	1	EX21		510
-1	270-50115-08	Spiral Spring	1			510
-2	269-50120-08	Reel	1			510
-3	269-50110-08	Starter Rope	1			510
-4	261-50100-08	Starter Knob	1			510
-5	270-50125-08	Ratchet Guide	2			510
-6	227-50131-08	Friction Spring	1			510
-7	227-50135-08	Return Spring	2	EX17		510
-11	268-50145-18	Starter Pulley	1	EX13		510
	269-50145-18	Starter Pulley	1	EX17		510
	278-50145-08	Starter Pulley	1	EX21		510
-35	270-50261-08	Ratchet Guide	1			510
-49	227-50152-08	Set Screw	1			510

**SECTION 6 FUEL, LUBRICATION GROUP**

**FIG. 600**

EX210DE5010 Only



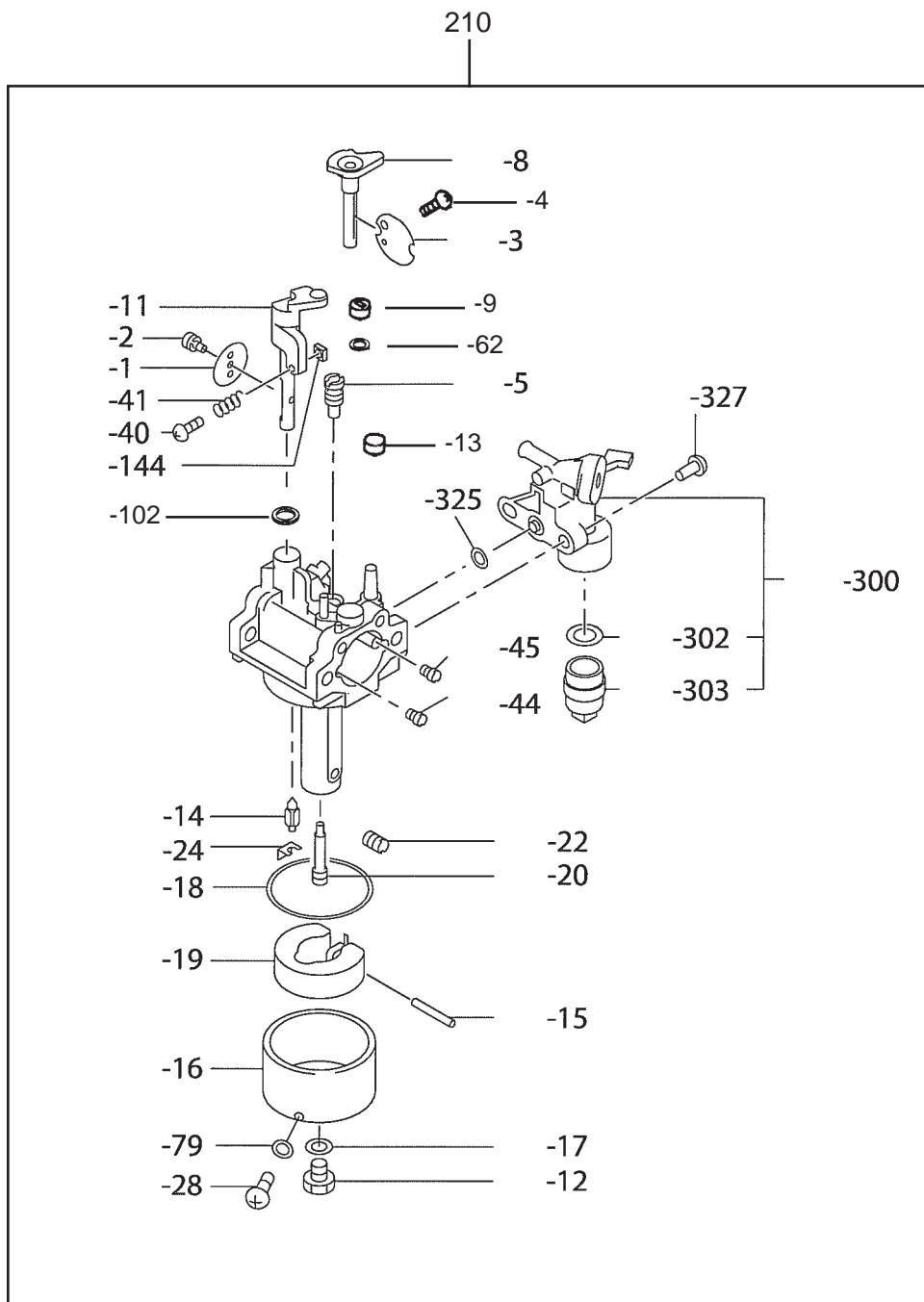
# SECTION 6 FUEL, LUBRICATION GROUP

REF.	PART NO.	DESCRIPTION	QTY.	REMARKS	FROM-TO	FIG.
10	276-60102-11	Fuel Tank Cp	1	EX13 - Black		600
	276-60101-11	Fuel Tank Cp	1	EX13 - Yellow		600
10	277-60102-11	Fuel Tank Cp	1	EX17, 21 - Black		600
	277-60101-11	Fuel Tank Cp	1	EX17, 21 - Yellow		600
20	073-20051-81	Label, warning	1			600
23	276-95111-03	Label, model	1	EX13		600
	277-95111-03	Label, model	1	EX17		600
	278-95111-03	Label, model	1	EX21		600
30	043-04400-50	Fuel Tank Cap Cp	1	Std		600
	X43-04401-42	Fuel Tank Cap Cp	1	Evap		600
	277-69901-00	Fuel Tank Cap Cp	1	EX210DE5010 Only		600
40	064-13600-10	Fuel Filter	1			600
48	050-51200-20	Union	1			600
60	002-38060-00	Flange Nut	2			600
63	011-00601-30	Flange Bolt	1			600
70	276-62603-11	Fuel Pipe Cp	1	EX13		600
	277-62601-11	Fuel Pipe Cp	1	EX17		600
	278-62601-11	Fuel Pipe Cp	1	EX21		600
80	085-10613-50	Rubber Pipe	1			600
90	X56-11100-60	Hose Clamp	2			600
224	277-43801-01	Choke Lever Control	1			600
410	420-36TA0-10	Canister	1	EX210DE5010 Only		600
415	277-39201-03	Bracket, canister	1	EX210DE5010 Only		600
420	277-39202-03	Band, canister	1	EX210DE5010 Only		600
440	277-69651-01	Pipe Cp, cap-cani	1	EX210DE5010 Only		600
441	277-69602-01	Pipe Cp, clean-cani	1	EX210DE5010 Only		600
460	056-10800-30	Hose Clamp	1	EX210DE5010 Only		600
461	056-10900-20	Hose Clamp	1	EX210DE5010 Only		600
462	056-10800-30	Hose Clamp	2	EX210DE5010 Only		600
463	014-00501-00	Screw	1	EX210DE5010 Only		600
540	277-32902-J1	Insulator	1			600
550	277-35903-J3	Gasket 2, insulator	1			600
560	277-35902-J3	Gasket 1, insulator	1			600
570	84735K12	Plastic Cap	1			600

**Note:**  
**Items 410 - 463 may be replaced by using items 30 (fuel tank cap, evap) and 570 (plastic cap) together. See back page for instructions.**

SECTION 6 FUEL, LUBRICATION GROUP

FIG. 640

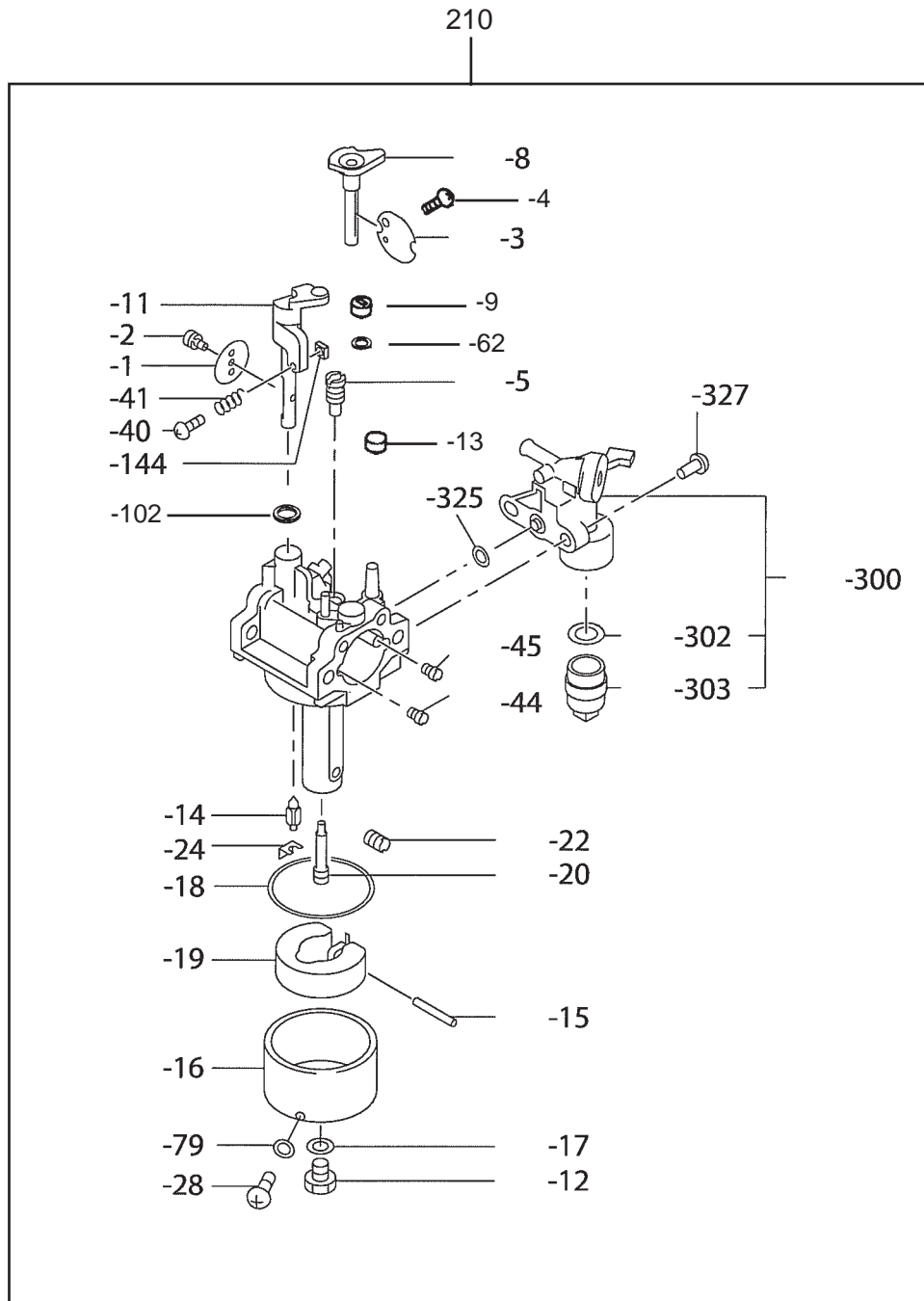


## SECTION 6 FUEL, LUBRICATION GROUP

REF.	PART NO.	DESCRIPTION	QTY.	REMARKS	FROM-TO	FIG.
210	276-62301-30	Carburetor Ay	1	EX13 - Foam		640
	276-62302-30	Carburetor Ay	1	EX13 - Dual Element		640
	276-62304-40	Carburetor Ay	1	EX13 - Low Profile		640
	276-62312-00	Carburetor Ay	1	EX13 - DE Specifications		640
210	277-62301-30	Carburetor Ay	1	EX17 - Foam		640
	277-62302-30	Carburetor Ay	1	EX17 - Dual Element		640
	277-62304-40	Carburetor Ay	1	EX17 - Low Profile		640
	277-62303-20	Carburetor Ay	1	EX17 - Cyclone Pre-cleaner		640
210	278-62301-30	Carburetor Ay	1	EX21 - Foam		640
	278-62302-30	Carburetor Ay	1	EX21 - Dual Element		640
	278-62304-40	Carburetor Ay	1	EX21 - Low Profile		640
-1	106-62538-08	Throttle Valve	1	EX13		640
	277-62535-08	Throttle Valve	1	EX17, 21		640
-2	209-62351-08	Screw	1			640
-3	277-62525-08	Choke Valve	1	Foam, Dual Element		640
	277-62527-08	Choke Valve	1	Low Profile		640
-4	237-62451-08	Screw	1	EX13 - Low Profile		640
-5	246-62420-08	Pilot Jet	1	EX13, 17		640
	278-62420-08	Pilot Jet	1	EX21		640
-8	277-62520-08	Choke Lever	1	Foam, Dual Element		640
	277-62522-08	Choke Lever	1	Low Profile		640
-9	277-62570-28	Ring	1	EX13 - Low Profile		640
-11	276-62530-18	Throttle Shaft A	1	EX13 - Foam		640
	276-62531-18	Throttle Shaft A	1	EX13 - Dual Element, Low Profile		640
-11	277-62530-18	Throttle Shaft A	1	EX17, 21 - Foam		640
	277-62531-18	Throttle Shaft A	1	EX17, 21 - Dual Element, Cyclone		640
-12	227-62451-08	Bolt	1			640
-13	277-62571-08	Ring	1	EX13 - Low Profile		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	276-62440-08	Main Nozzle	1	EX13		640
	277-62440-08	Main Nozzle	1	EX17		640
	278-62440-08	Main Nozzle	1	EX21		640
-22	277-62404-18	Main Jet	1	EX13 - Foam, Low Profile		640
	252-62405-08	Main Jet	1	EX13 - Dual Element		640
-22	277-62402-08	Main Jet	1	EX17 - Foam		640
	226-62412-08	Main Jet	1	EX17 - Dual Element		640
	277-62412-08	Main Jet	1	EX17 - Cyclone Pre-cleaner		640
-22	277-62406-08	Main Jet	1	EX21 - Foam		640
	277-62405-08	Main Jet	1	EX21 - Dual Element		640
-24	226-62701-18	Clip	1			640
-28	277-62360-08	Bolt	1			640

SECTION 6 FUEL, LUBRICATION GROUP

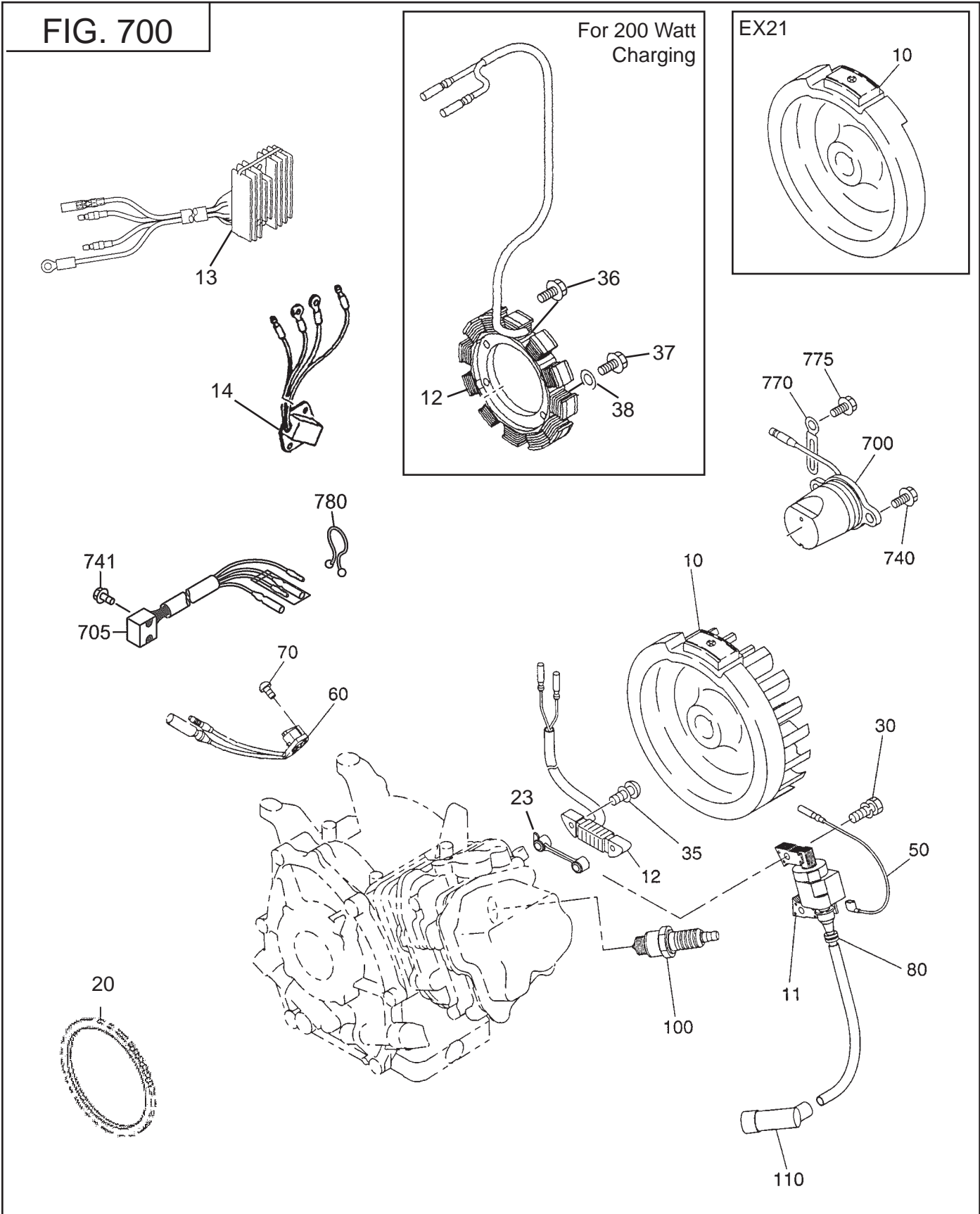
FIG. 640







SECTION 7 ELECTRIC DEVICE GROUP

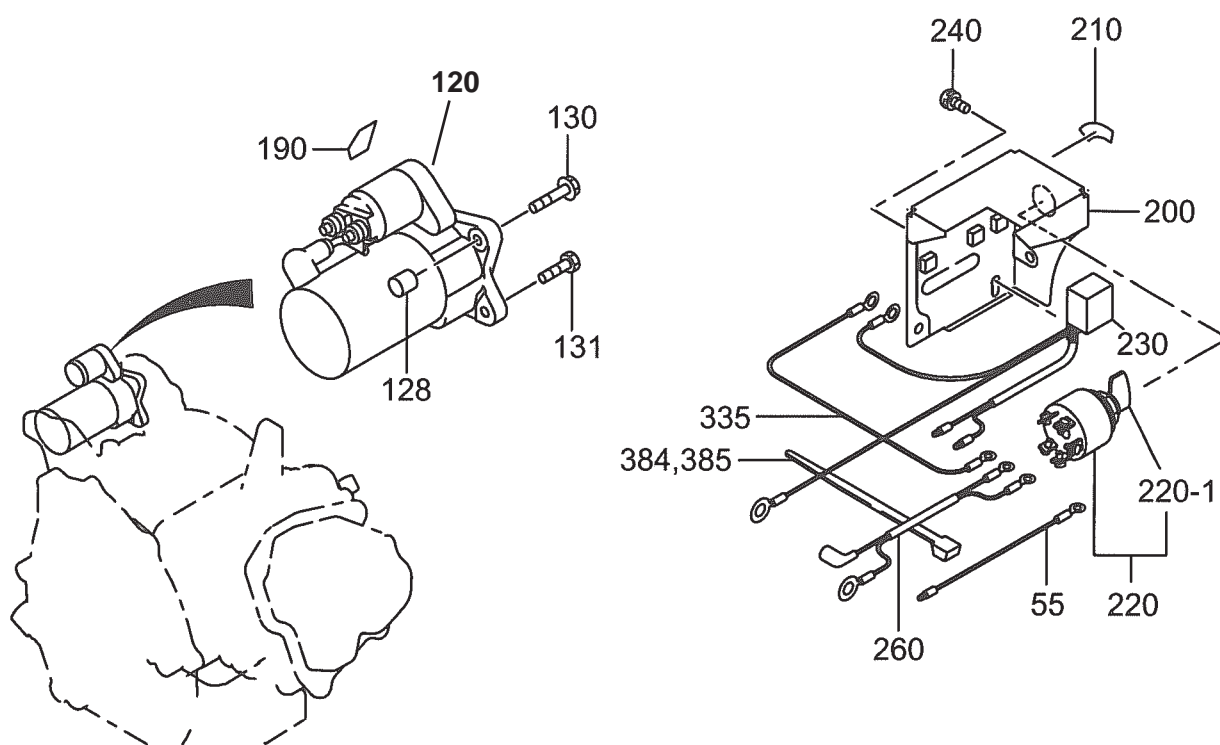


## SECTION 7 ELECTRIC DEVICE GROUP

REF.	PART NO.	DESCRIPTION	QTY.	REMARKS	FROM-TO	FIG.
10	276-79230-21	Flywheel Cp	1	EX13 - Std		700
	276-79241-01	Flywheel Cp	1	EX13 - 15W, 40W		700
10	277-79230-11	Flywheel Cp	1	EX17 - Std		700
	277-79241-01	Flywheel Cp	1	EX17 - 15W, 40W		700
	277-79242-11	Flywheel Cp	1	EX17 - 200W		700
	277-79261-01	Flywheel Cp	1	EX17 - 15W, 40W		700
	277-79262-01	Flywheel Cp	1	EX17 - 200W		700
10	278-79240-21	Flywheel Cp	1	EX21 - Std		700
	278-79241-01	Flywheel Cp	1	EX21 - 15W, 40W		700
	278-79243-11	Flywheel Cp	1	EX21 - 200W		700
	278-79261-01	Flywheel Cp	1	EX21 - 15W, 40W		700
	278-79262-01	Flywheel Cp	1	EX21 - 200W		700
11	277-79431-11	Ignition Coil Cp	1			700
12	277-79301-01	Lamp Coil Cp	1	15W		700
	277-79302-01	Charge Coil Cp	1	40W		700
	277-79303-11	Charge Coil Cp	1	EX17, 21 - 200W		700
13	277-71901-01	Regulator	1	EX17, 21 - 200W		700
14	147-71401-01	Rectifier Diode	1	EX17, 21 - 15W		700
	246-71903-01	Regulator	1	EX17, 21 - 40W		700
20	277-71002-03	Ring Gear	1	Electric Start		700
23	277-79501-03	Spacer	1			700
30	001-14062-50	Bolt & Washer Ay	2			700
35	001-13063-50	Bolt & Washer Ay	2	15W		700
	001-13064-00	Bolt & Washer Ay	2	40W		700
36	004-35062-50	Screw and Washer Ay	2	200W		700
37	277-79001-03	Reamer Screw	2	200W		700
38	003-20060-00	Spring Washer	2	200W		700
50	277-73101-H1	Wire 1 Cp	1			700
	277-73102-H1	Wire 2 Cp	1	w/ oil sensor		700
	279-73105-H1	Wire 5 Cp	1	Electric Start		700
60	066-00004-70	Switch Ay	1	Old Style - 1 wire		700
	KU3-11071-01	Switch Ay w/ LED light	1	New Style - 2 wire		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	277-76301-21	Oil Sensor	1			700
705	KU3-11043-11	Control Ay	1	New Style		700
	KU3-11043-01	Control Ay	1	Old Style		700
740	001-14061-60	Bolt & Washer Ay	2			700
741	015-00400-90	Tapping Screw	2	New Style		700
	015-20500-10	Tapping Screw	1	Old Style		700
770	214-79006-01	Clamp	1			700
775	011-00600-20	Flange Bolt	1			700
780	056-90000-20	Purse Lock	1			700

SECTION 7 ELECTRIC DEVICE GROUP

FIG. 720

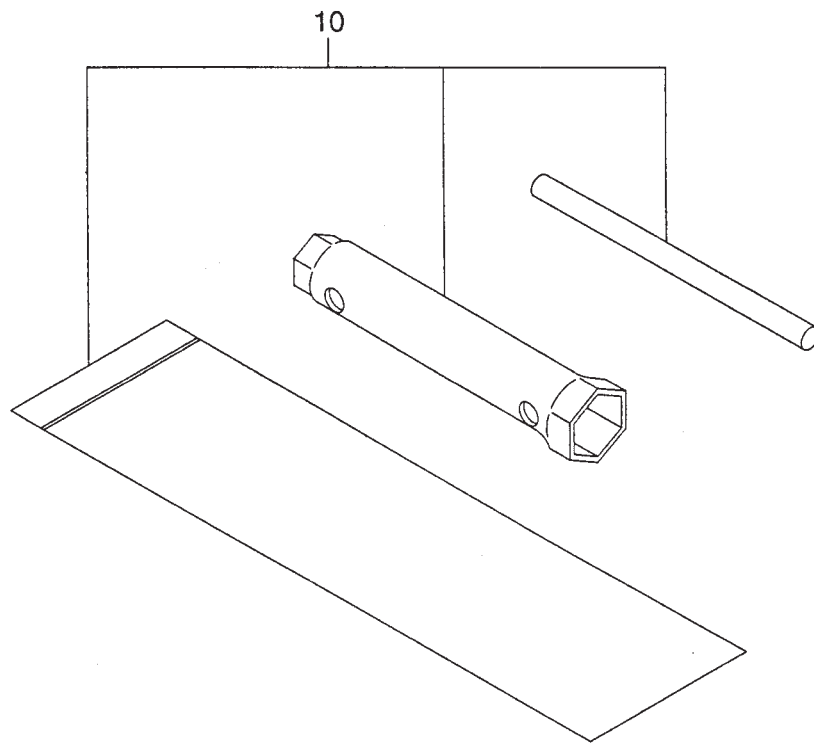


## SECTION 7 ELECTRIC DEVICE GROUP

REF.	PART NO.	DESCRIPTION	QTY.	REMARKS	FROM-TO	FIG.
55	277-73105-01	Wire 5	1			720
120	277-70502-00	Starting Motor CP	1			720
128	980-40081-10	Str Pin	1			720
130	011-00604-70	Flange Bolt	1			720
131	011-00604-80	Flange Bolt	1			720
190	073-20044-80	Label, battery	1			720
200	277-75101-01	Control Box	1			720
210	073-20044-60	Label, starter switch	1			720
220	066-00003-30	Switch	1			720
-1	066-00099-80	Key, switch	2			720
230	277-71401-01	Diode Rectifier Cp	1			720
240	004-35061-00	Screw and Washer Ay	1			720
260	277-73103-11	Wire 3 Cp	1			720
335	277-73104-01	Wire 4 Cp	1			720
384	056-30000-20	Wire Band	1			720
385	056-30000-60	Wire Band	1			720

SECTION 9    ACCESSORY GROUP

FIG. 900





## Procedure for Converting Active Carbon Canister to a Passive Cap/Canister

1. Remove carbon canister purge hose from the back side of the air cleaner by pulling the hose off using needle nose pliers.
2. Install the plastic cap (P/N 84735K12) onto the nipple that the hose was removed from. Fully seat the plastic cap using your fingers.
3. Remove the top two screws on the recoil to remove the hose clamps. After the clamps have been removed, reinstall the two top screws.
4. Remove the nuts holding the carbon canister bracket to the engine, from under the fuel tank. Pull the canister down and outward to remove.
5. Reinstall the two fuel tank retaining nuts.
6. Remove the old fuel cap from tank and install passive cap/canister (P/N X43-04401-42) onto fuel tank first by inserting fuel cap tether spring into fuel tank filler neck, then insert cap and turn into place.



**Notes:**

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