

**Robin Industrial Engines®**

# **PARTS MANUAL**

**Model**

**PTX301D**

**PUMP**

PUB-PP6438A  
Rev. 06/08

# **Robin America, Inc.**

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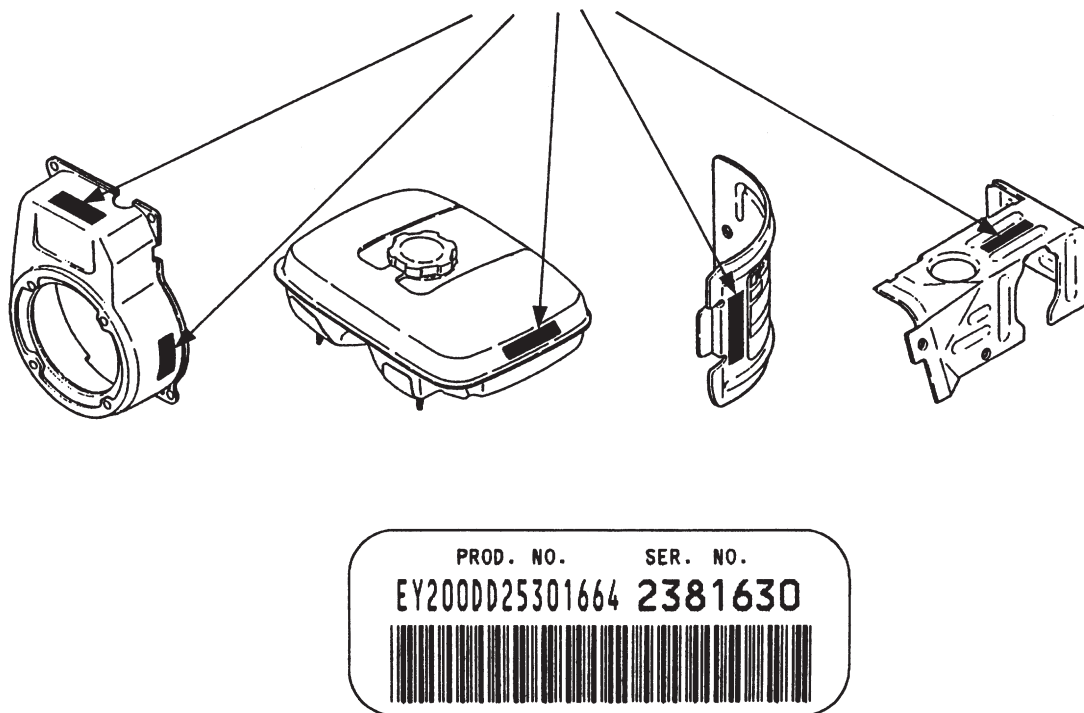
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## HOW TO USE THIS MANUAL

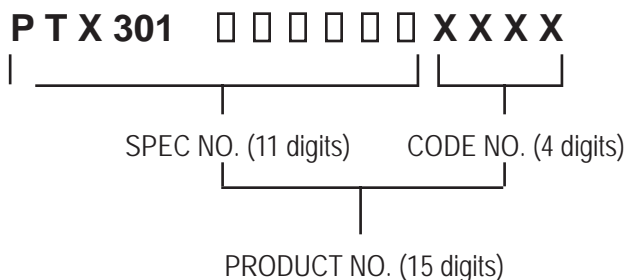
Robin engines are identified by MODEL, SPECIFICATION, and CODE NUMBER. For each model there may be many different versions called specifications. Each specification will be unique in some way. The difference may only be the paint color or it may have a different type of PTO or some other significant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

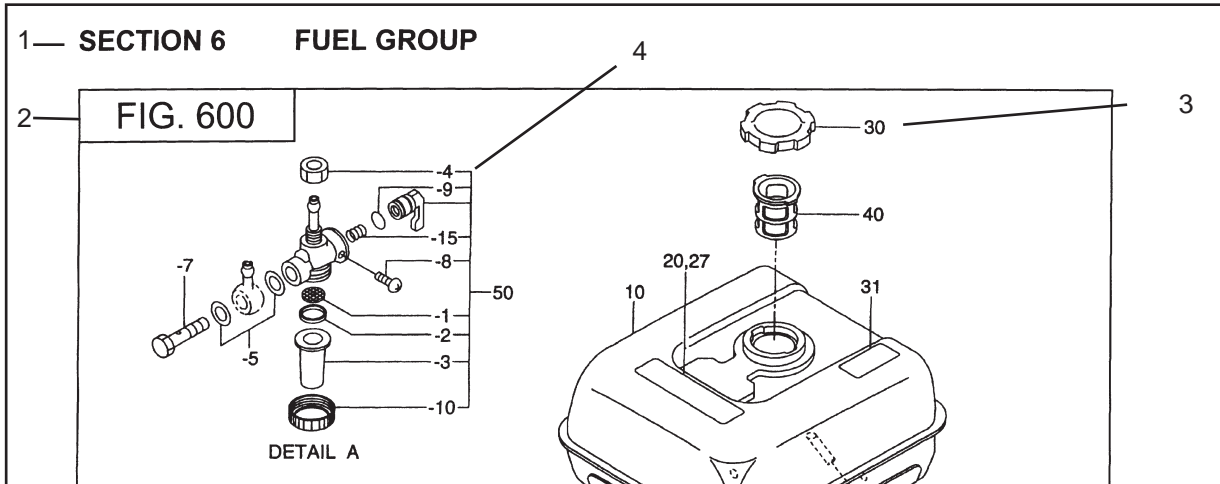
All Robin 4 cycle engines have a Product Number label similar to the label illustrated below.



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.

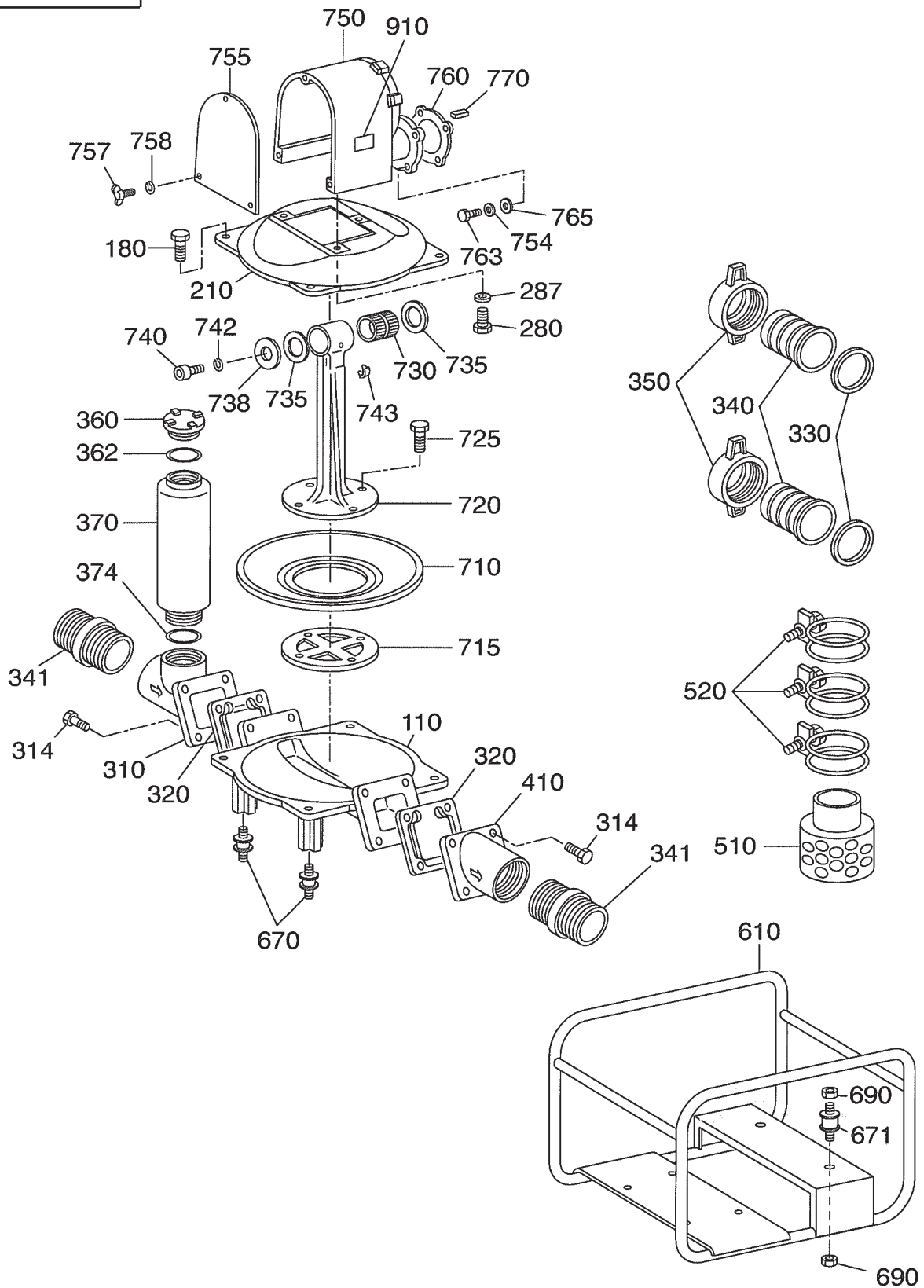
# GROUP INDEX

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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 PUMP GROUP

FIG. 100

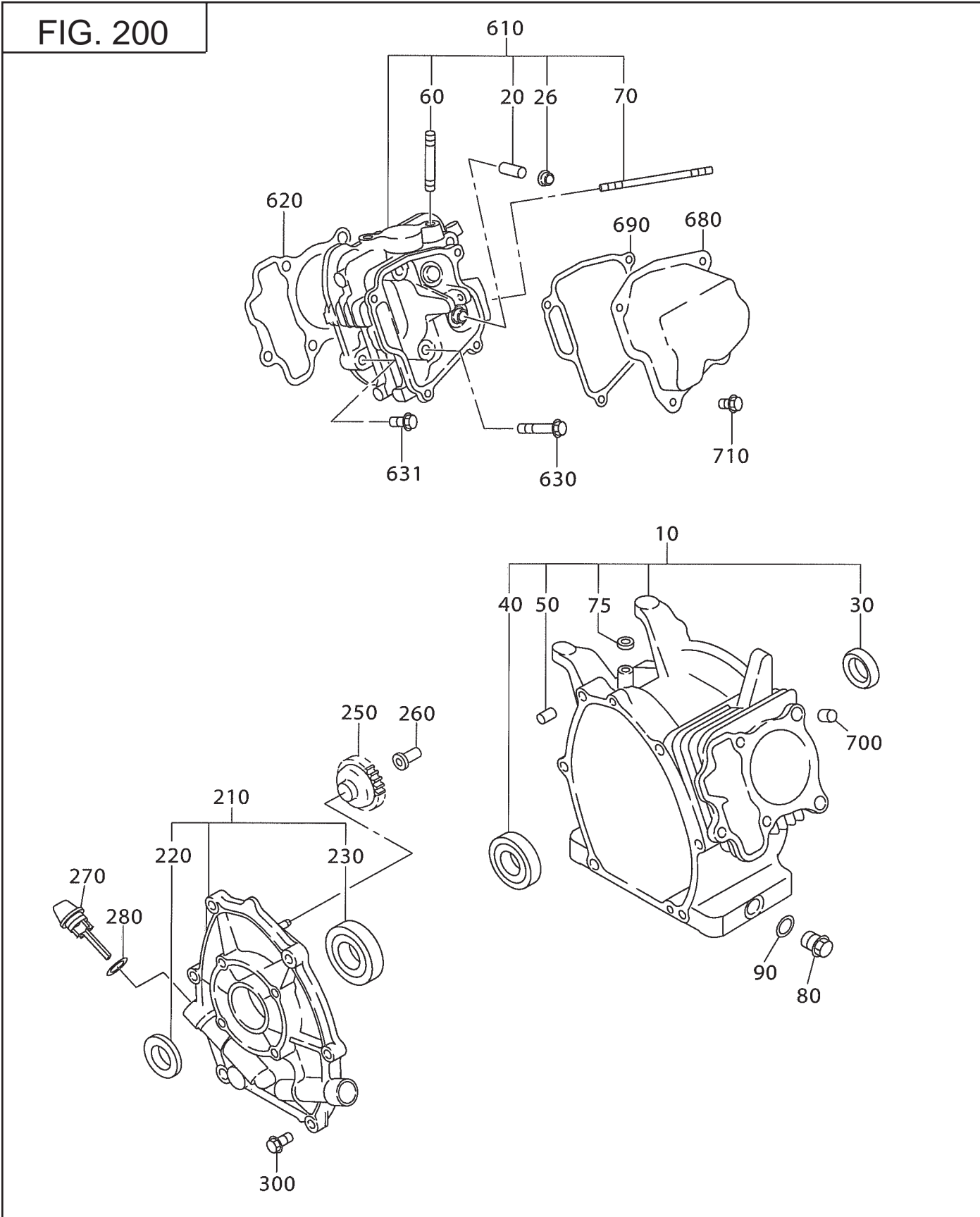


## SECTION 1      PUMP GROUP

REF.	PART NO.	DESCRIPTION	QTY.	REMARKS	FROM-TO	FIG.
110	480-08310-17	Pump Body, lower	1			100
180	480-05310-02	Hex Bolt	4			100
210	480-08310-01	Pump Body, upper	1			100
280	480-05310-03	Hex Bolt	3			100
287	480-05310-29	Washer	3			100
310	480-08310-23	Suction Flange	1			100
314	480-05310-12	Hex Bolt	8			100
320	480-08310-24	Valve	2			100
330	480-08010-17	Packing, coupling	2			100
340	480-08210-22	Hose Coupling	2			100
341	481-00001-67	Nipple	2			100
350	480-08210-23	Coupling, al	2			100
360	480-08210-12	Plug	1			100
362	480-08210-18	O ring	1			100
370	480-08310-20	Suction Chamber	1			100
374	480-08310-21	O ring	1			100
410	480-08310-26	Delivery Flange	1			100
510	480-08310-33	Strainer	1			100
520	480-08010-28	Hose Band	3			100
610	481-00001-84	Frame	1			100
670	480-05310-05	Rubber Cushion	4			100
671	480-05310-06	Rubber Cushion	2			100
690	480-10010-24	Nut & Washer Ay	8			100
710	480-08310-15	Diaphragm	1			100
715	480-08310-16	Cap, diaphragm	1			100
720	480-08310-14	Rod	1			100
725	480-08010-14	Bolt and Washer Ay	4			100
730	480-05310-08	Needle Bearing	1			100
735	480-05310-07	Washer	2			100
738	480-05310-10	Thrust Washer	1			100
740	480-05310-11	Hex Bolt	1			100
742	480-05310-36	Spring Washer	1			100
743	480-05310-09	Grease Nipple	1			100
750	480-05310-42	Gear Unit	1			100
754	480-05310-36	Spring Washer	4			100
755	480-05310-34	Cover	1			100
757	480-05310-32	Wing Screw	3			100
758	480-05310-33	Spring Washer	3			100
760	480-05310-39	Packing	1			100
763	480-05310-41	Screw	4			100
765	480-05310-38	Washer	4			100
770	480-05310-40	Key, crankshaft	1			100
910	484-00072-03	Label, pump name	1			100
						100

SECTION 2 CRANKCASE GROUP

FIG. 200

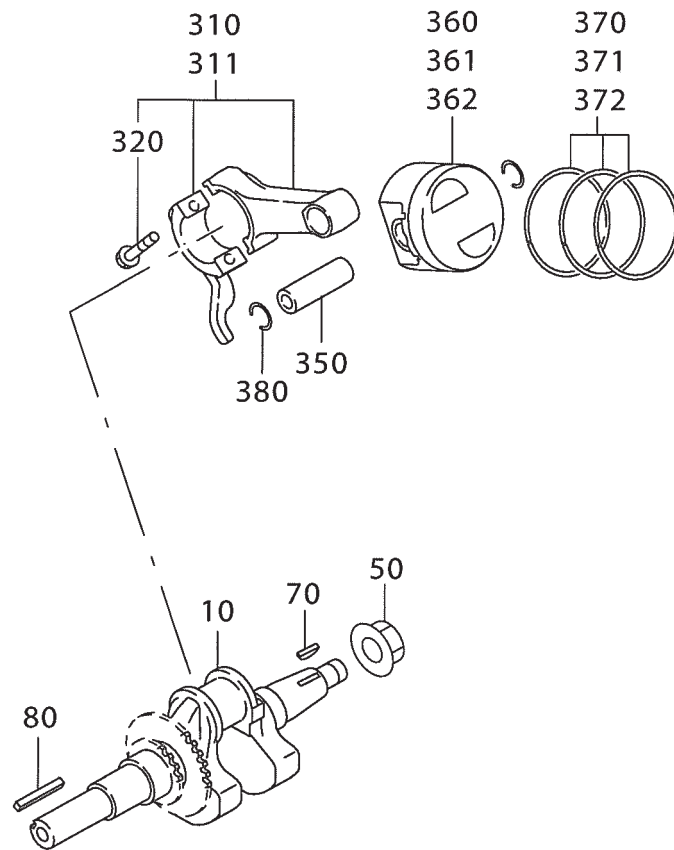






SECTION 3 CRANKSHAFT GROUP

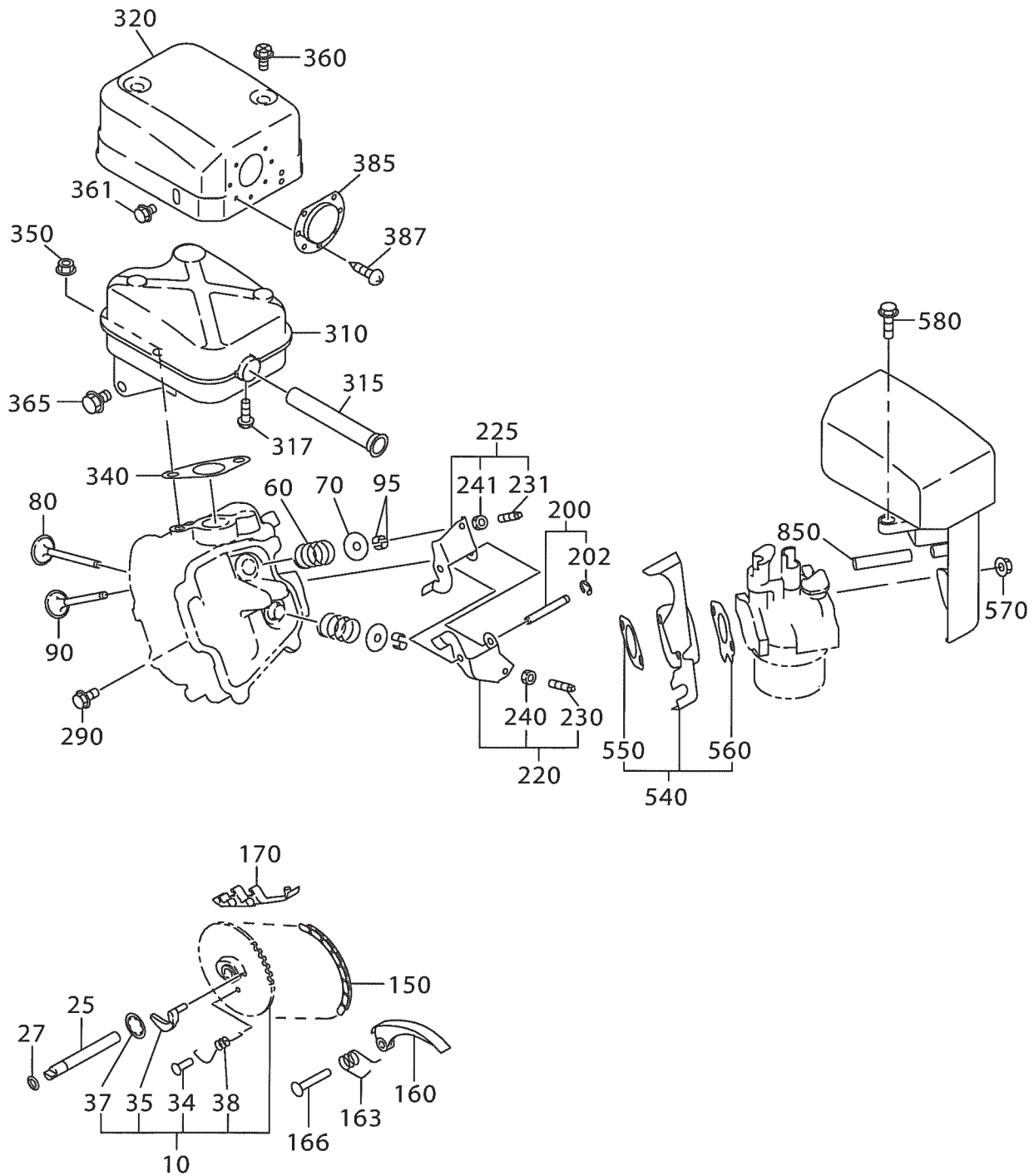
FIG. 300





SECTION 4 INTAKE and EXHAUST GROUP

FIG. 400

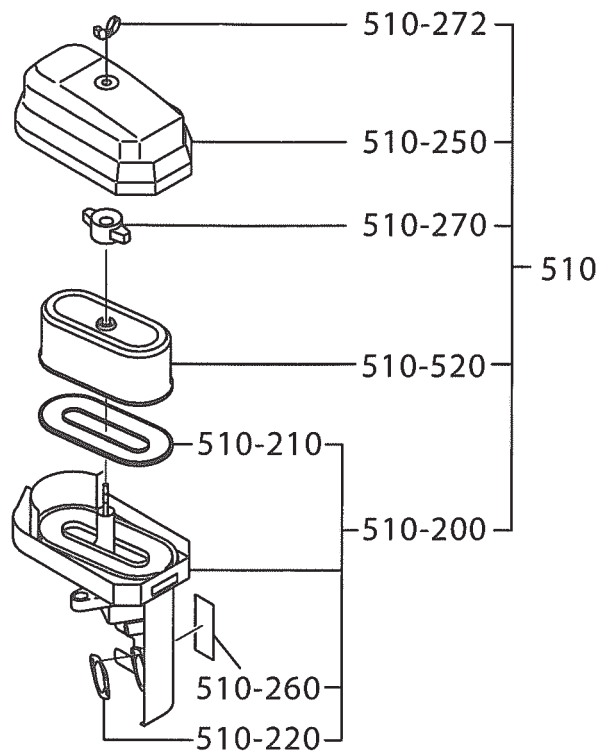


## SECTION 4      INTAKE and EXHAUST GROUP

REF.	PART NO.	DESCRIPTION	QTY.	REMARKS	FROM-TO	FIG.
10	277-31601-31	Camshaft Cp	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	277-38702-03	Return Spring	1			400
60	279-33601-03	Valve Spring	2			400
70	269-33701-03	Spring Retainer	2			400
80	277-33401-H3	Intake Valve	1			400
90	277-33501-H3	Exhaust Valve	1			400
95	132-10KA0-31	Collet Valve	4			400
150	277-35601-11	Timing Chain Cp	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	277-35002-01	Pin Cp, rocker	1			400
202	003-13050-00	Clip	1			400
220	277-36201-00	Rocker Arm Ay, intake	1			400
225	277-36202-00	Rocker Arm Ay, exhaust	1			400
230	014-90500-20	Adjust Screw	1			400
231	014-90500-20	Adjust Screw	1			400
240	017-00500-30	Nut	1			400
241	017-00500-30	Nut	1			400
290	011-00600-20	Flange Bolt	1			400
310	277-30111-J1	Muffler Cp	1			400
315	277-37601-01	Spark Arrester Cp	1			400
317	015-00400-60	Tapping Screw	1			400
320	277-34201-31	Muffler Cover Cp	1			400
340	277-35201-13	Tapping Screw	1			400
350	980-20082-80	Muffler Cover Cp	2			400
360	015-20600-90	Gasket, muffler	2			400
361	011-00600-10	Flange Bolt	1			400
365	011-00803-20	Flange Bolt	1			400
385	277-37203-H1	Screen Cp	1			400
387	015-00400-60	Tapping Screw	2			400
540	277-32902-J1	Insulator Cp	1			400
550	277-35903-J3	Gasket 2, insulator	1			400
560	277-35902-J3	Gasket 1, insulator	1			400
570	002-38060-00	Flange Nut	2			400
580	011-00600-50	Flange Bolt	1			400
850	277-32760-08	Breather Pipe	1			400

SECTION 4 INTAKE and EXHAUST GROUP

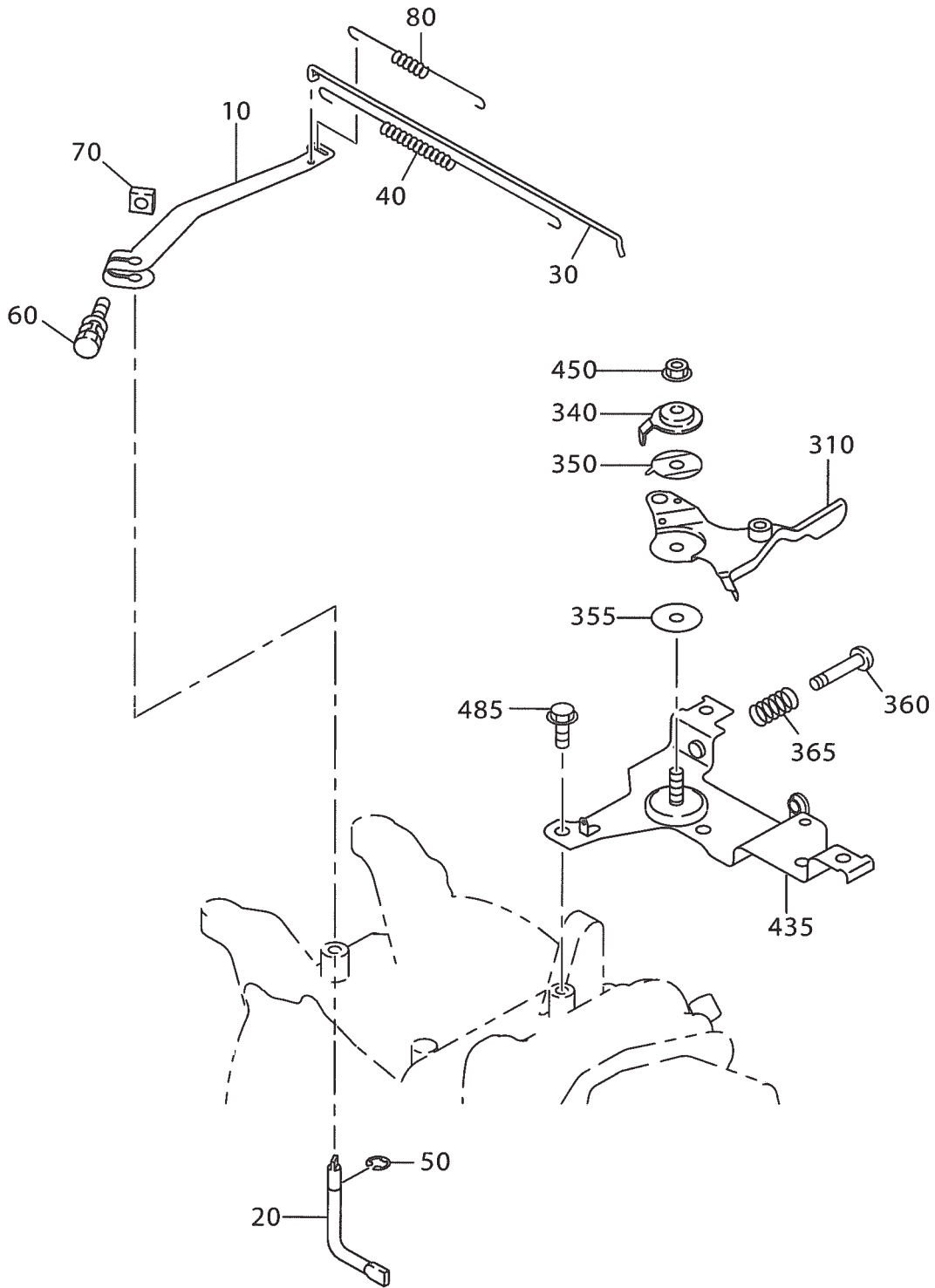
FIG. 415





SECTION 5 GOVERNOR GROUP

FIG. 500

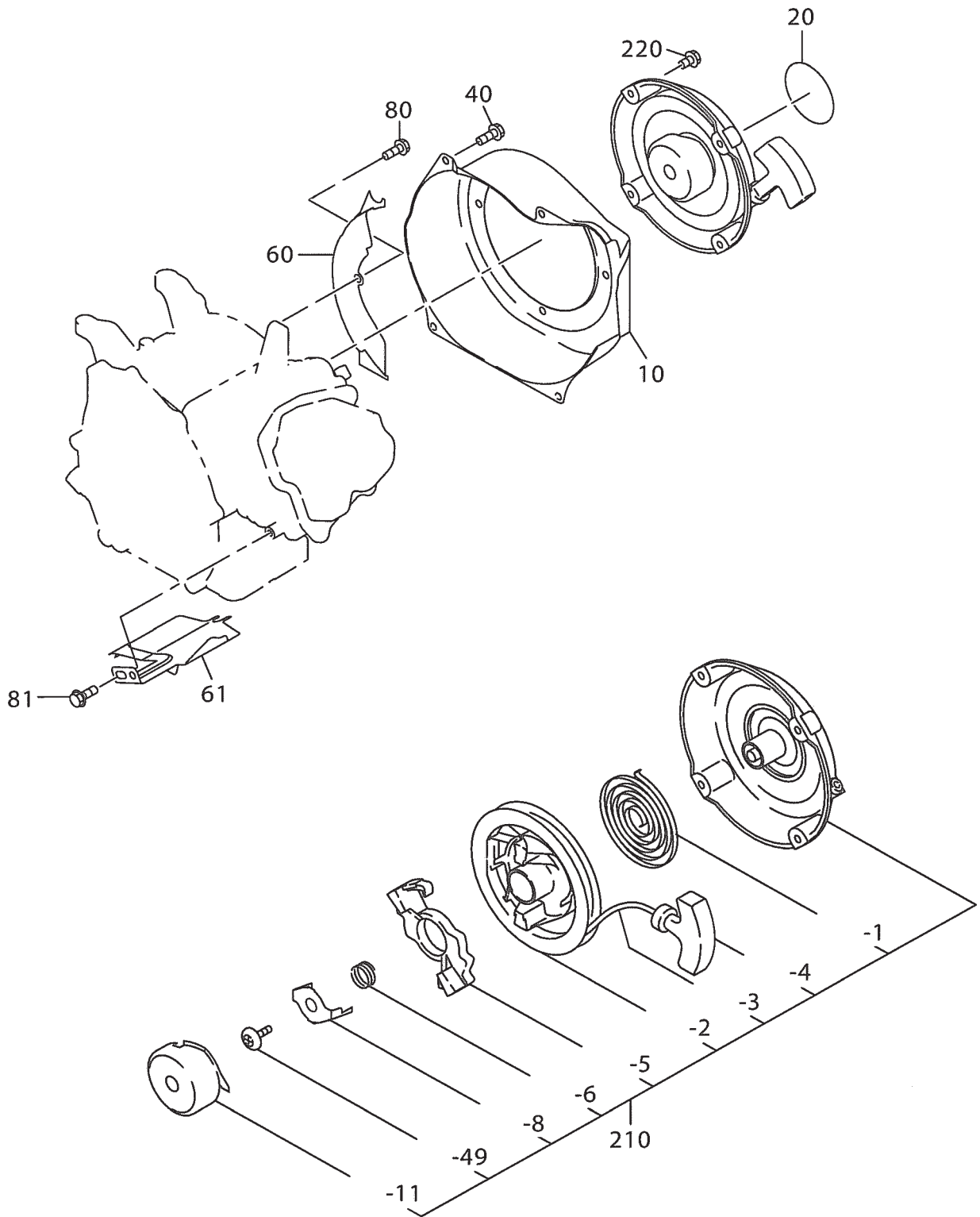






SECTION 6 COOLING and STARTING GROUP

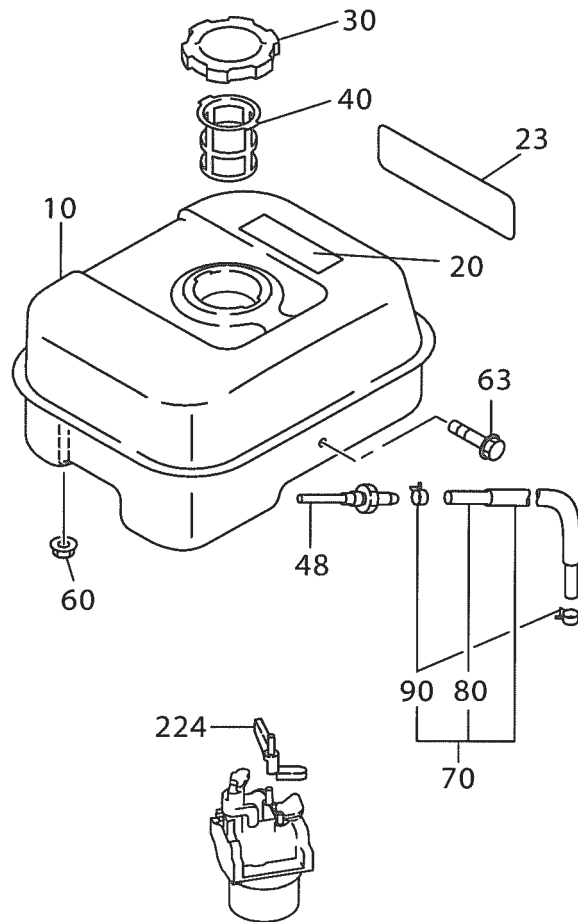
FIG. 600





SECTION 7 FUEL, LUBRICATION GROUP

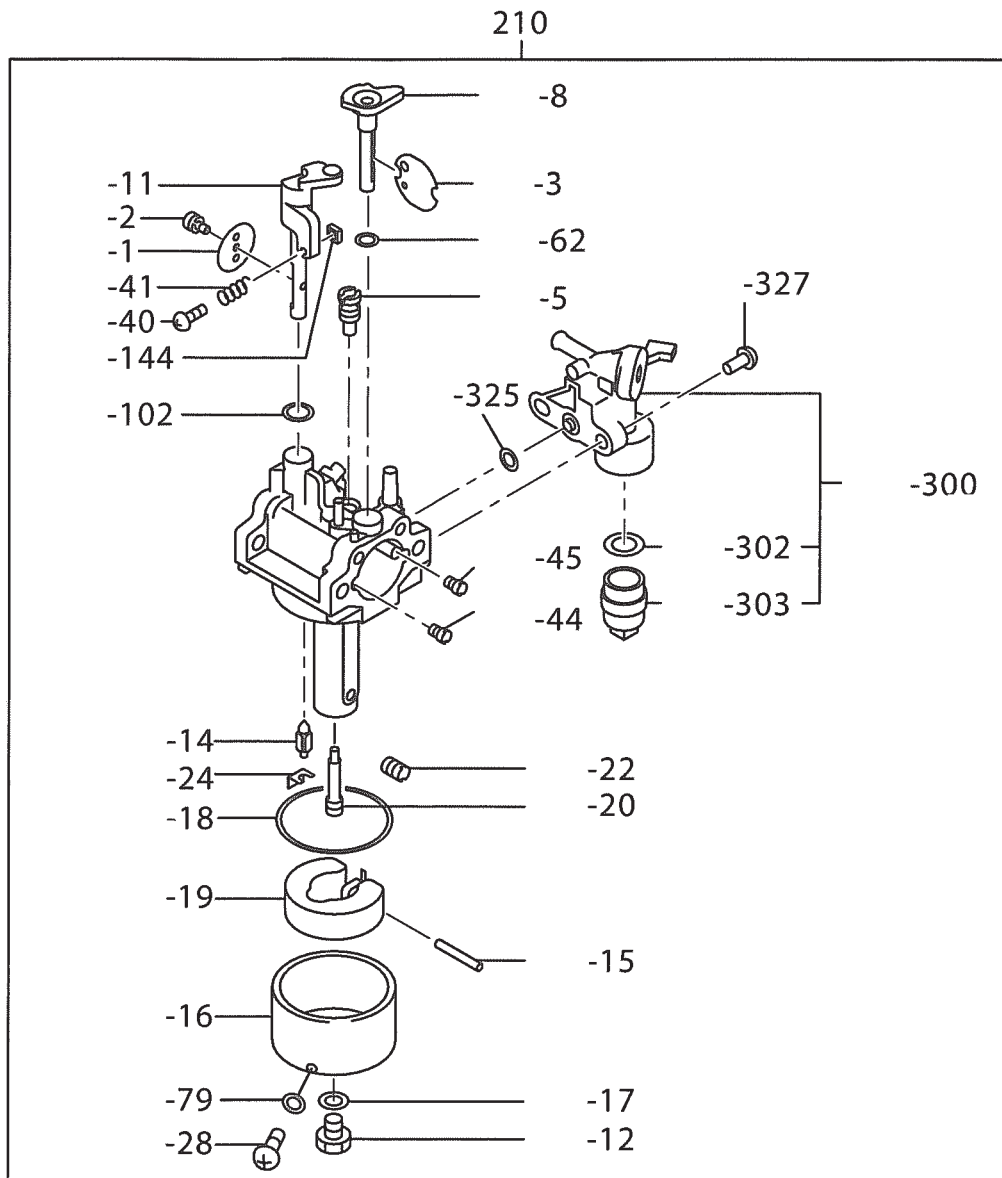
FIG. 700





SECTION 7 FUEL, LUBRICATION GROUP

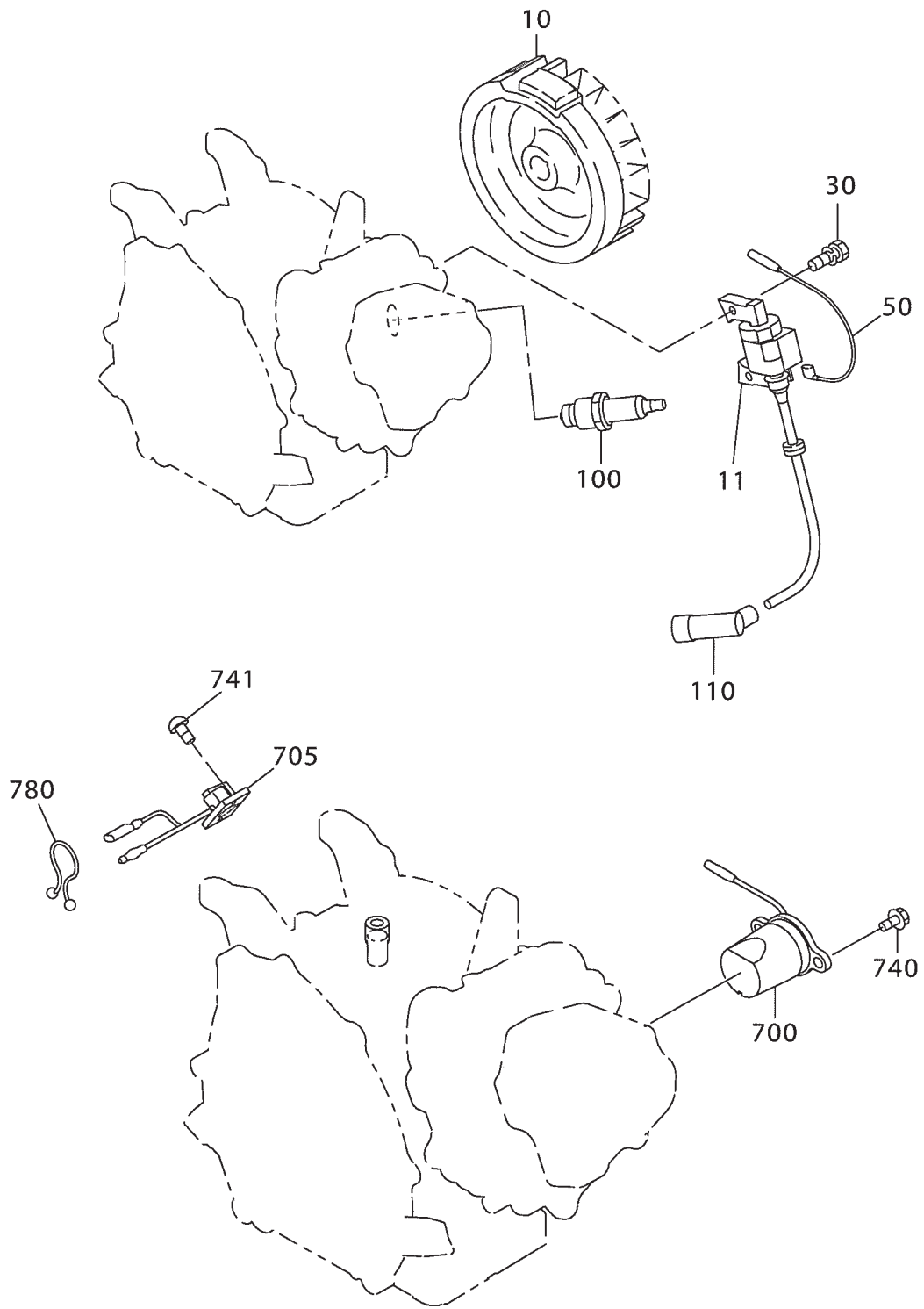
FIG. 740





SECTION 8 ELECTRIC DEVICE GROUP

FIG. 800

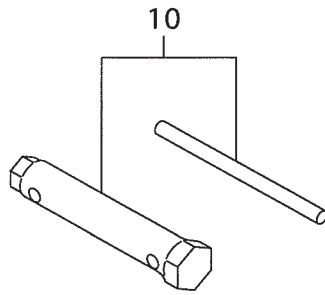






SECTION 9    ACCESSORY GROUP

FIG. 900





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