

# **PARTS MANUAL**

**Models**

**EX13, EX17, EX21  
ENGINE**

PUB-EP1676  
Rev. 09/03

# **Robin America, Inc.**

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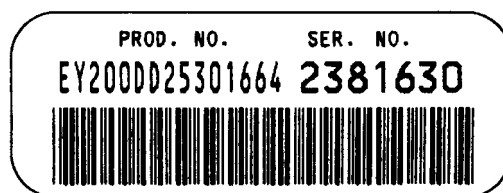
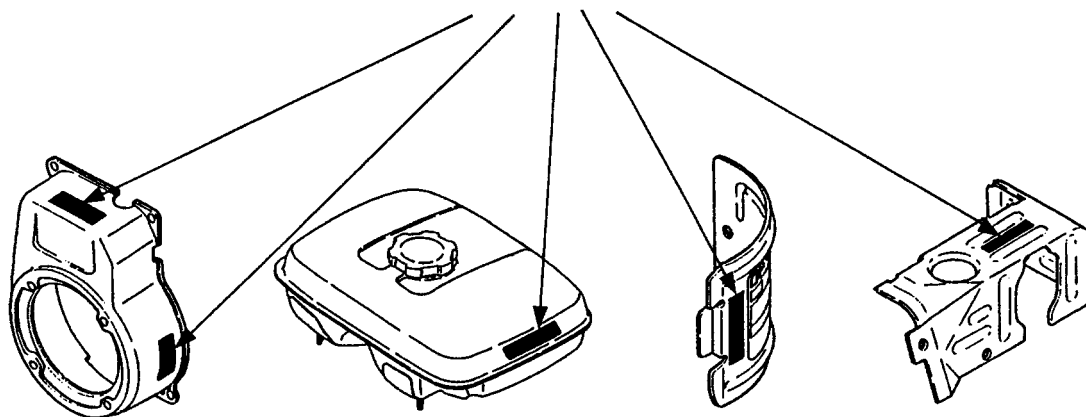
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## HOW TO USE THIS MANUAL

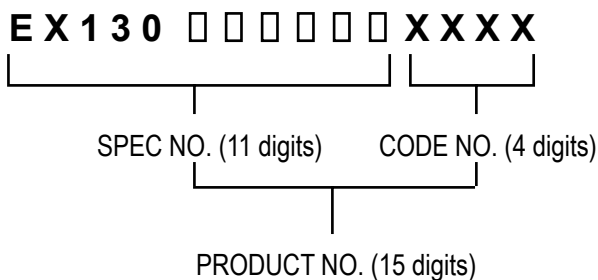
Robin engines are identified by MODEL, SPECIFICATION, and CODE NUMBER. For each model there may be many different versions called specifications. Each specification will be unique in some way. The difference may only be the paint color or it may have a different type of PTO or some other significant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

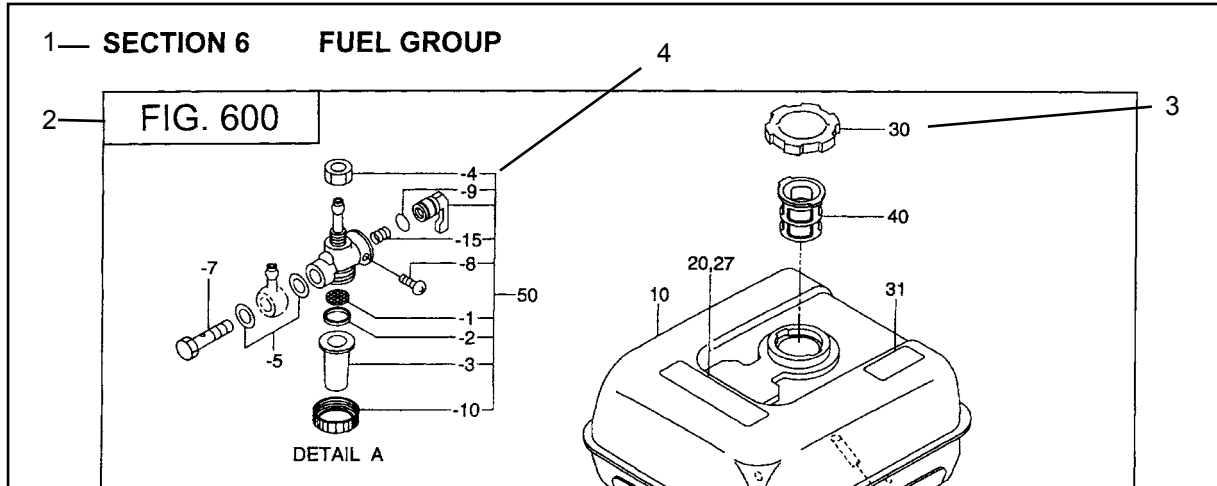
All Robin 4 cycle engines have a Product Number label similar to the label illustrated below.



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.

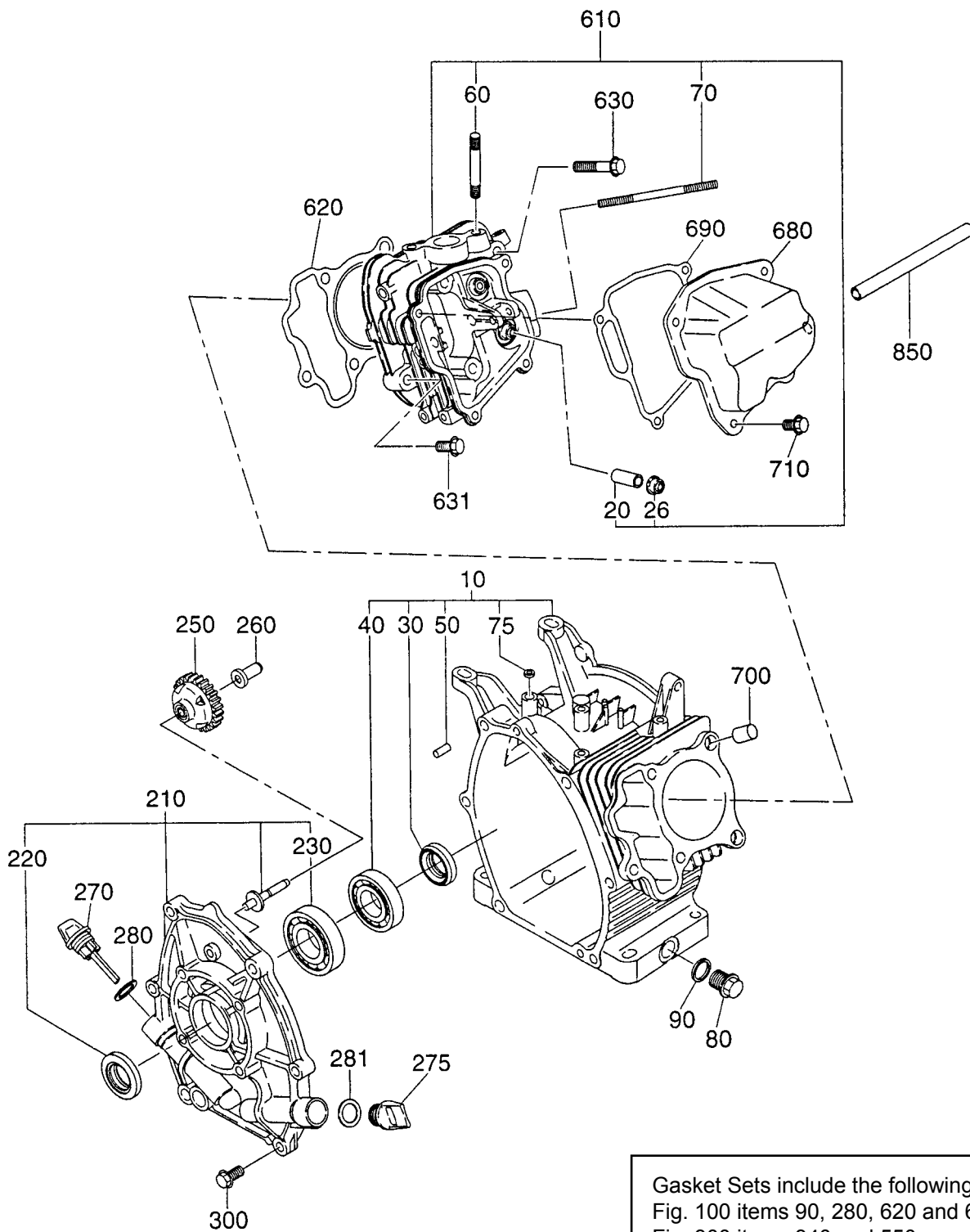
# GROUP INDEX

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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



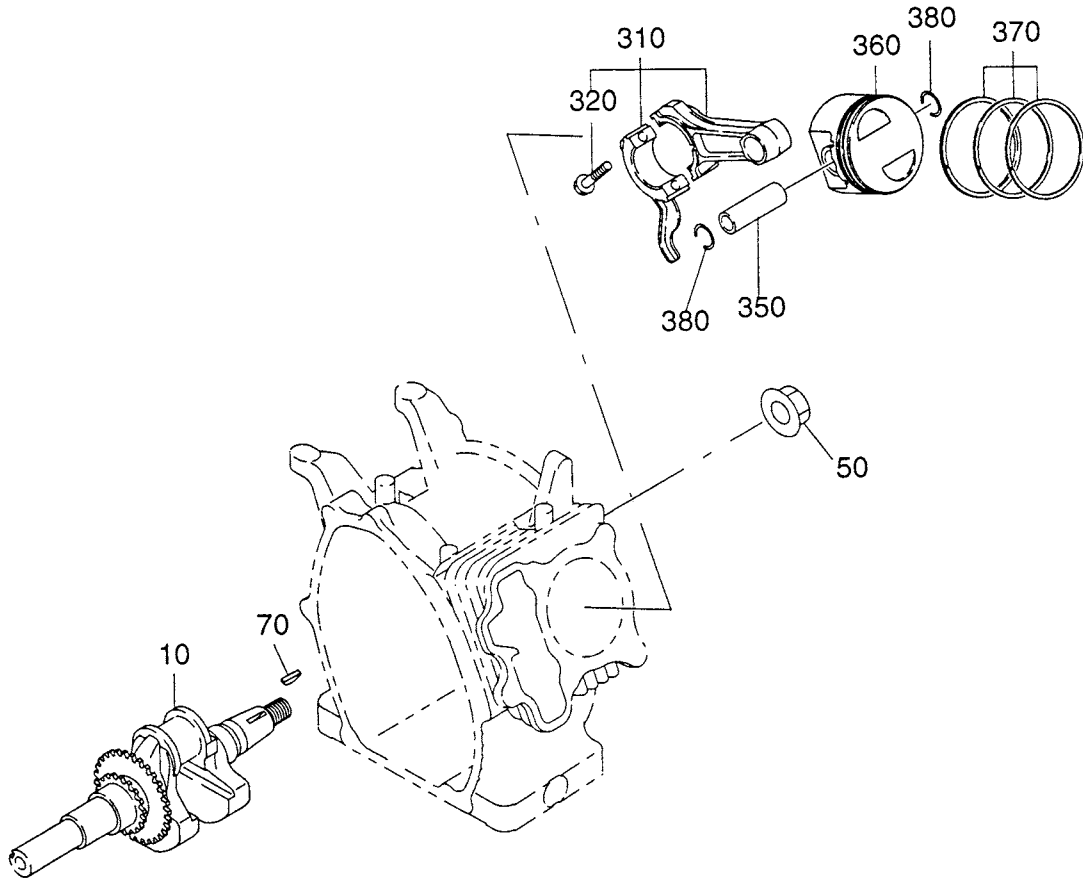
Gasket Sets include the following:  
 Fig. 100 items 90, 280, 620 and 690  
 Fig. 300 items 340 and 550

## SECTION 1 CRANKCASE GROUP

| REF. | PART NO.     | DESCRIPTION           | QTY. | REMARKS              | FROM-TO   | FIG. |
|------|--------------|-----------------------|------|----------------------|-----------|------|
| 10   | 276-10102-41 | CRANKCASE CP          | 1    | EX13, w/ oil sensor  |           | 100  |
|      | 276-10101-41 | CRANKCASE CP          | 1    | EX13, w/o oil sensor |           | 100  |
| 10   | 277-10102-41 | CRANKCASE CP          | 1    | EX17, w/ oil sensor  |           | 100  |
|      | 277-10101-41 | CRANKCASE CP          | 1    | EX17, w/o oil sensor |           | 100  |
| 10   | 278-10102-41 | CRANKCASE CP          | 1    | EX21, w/ oil sensor  |           | 100  |
|      | 278-10101-41 | CRANKCASE CP          | 1    | EX21, w/o oil sensor |           | 100  |
| 20   | 237-14201-03 | 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    |                      |           | 100  |
| 70   | 010-50603-51 | STUD                  | 2    |                      |           | 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-H1 | GOVERNOR GEAR CP      | 1    |                      |           | 100  |
| 260  | 277-41901-03 | GOVERNOR SLEEVE       | 1    |                      |           | 100  |
| 270  | 277-63601-13 | OIL GAUGE             | 1    |                      |           | 100  |
| 275  | 277-65001-03 | FILLER PLUG           | 1    |                      |           | 100  |
| 280  | 021-31600-20 | GASKET                | 1    |                      |           | 100  |
| 281  | 021-31600-20 | GASKET                | 1    |                      |           | 100  |
| 300  | 001-04083-50 | FLANGE BOLT           | 6    |                      |           | 100  |
| 610  | 276-13001-01 | CYLINDER HEAD CP      | 1    | EX13, Old style      | ~ 2099999 | 100  |
|      | 276-13001-11 | CYLINDER HEAD CP      | 1    | EX13, New style      | 2100000~  | 100  |
|      | 277-13001-01 | CYLINDER HEAD CP      | 1    | EX17, Old style      | ~ 2099999 | 100  |
|      | 277-13001-11 | CYLINDER HEAD CP      | 1    | EX17, New style      | 2100000~  | 100  |
|      | 278-13001-01 | CYLINDER HEAD CP      | 1    | EX21, Old style      | ~ 2099999 | 100  |
|      | 278-13001-11 | CYLINDER HEAD CP      | 1    | EX21, New style      | 2100000~  | 100  |
| 620  | 276-15001-13 | GASKET, head          | 1    | EX13                 |           | 100  |
|      | 277-15001-23 | GASKET, head          | 1    | EX17 and EX21        |           | 100  |
| 630  | 011-00802-40 | FLANGE BOLT           | 4    |                      |           | 100  |
| 631  | 001-04083-50 | FLANGE BOLT           | 1    |                      |           | 100  |
| 680  | 277-15501-01 | ROCKER COVER CP       | 1    |                      |           | 100  |
| 690  | 277-16001-03 | 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  | 276-99001-07 | GASKET SET            | 1    | EX13                 |           | 100  |
|      | 277-99001-07 | GASKET SET            | 1    | EX17 and EX21        |           | 100  |
|      | EX0-20000-01 | GASKET IN A TUBE      |      |                      |           |      |
|      |              |                       |      |                      |           |      |
|      |              |                       |      |                      |           |      |

SECTION 2 CRANKSHAFT GROUP

FIG. 200



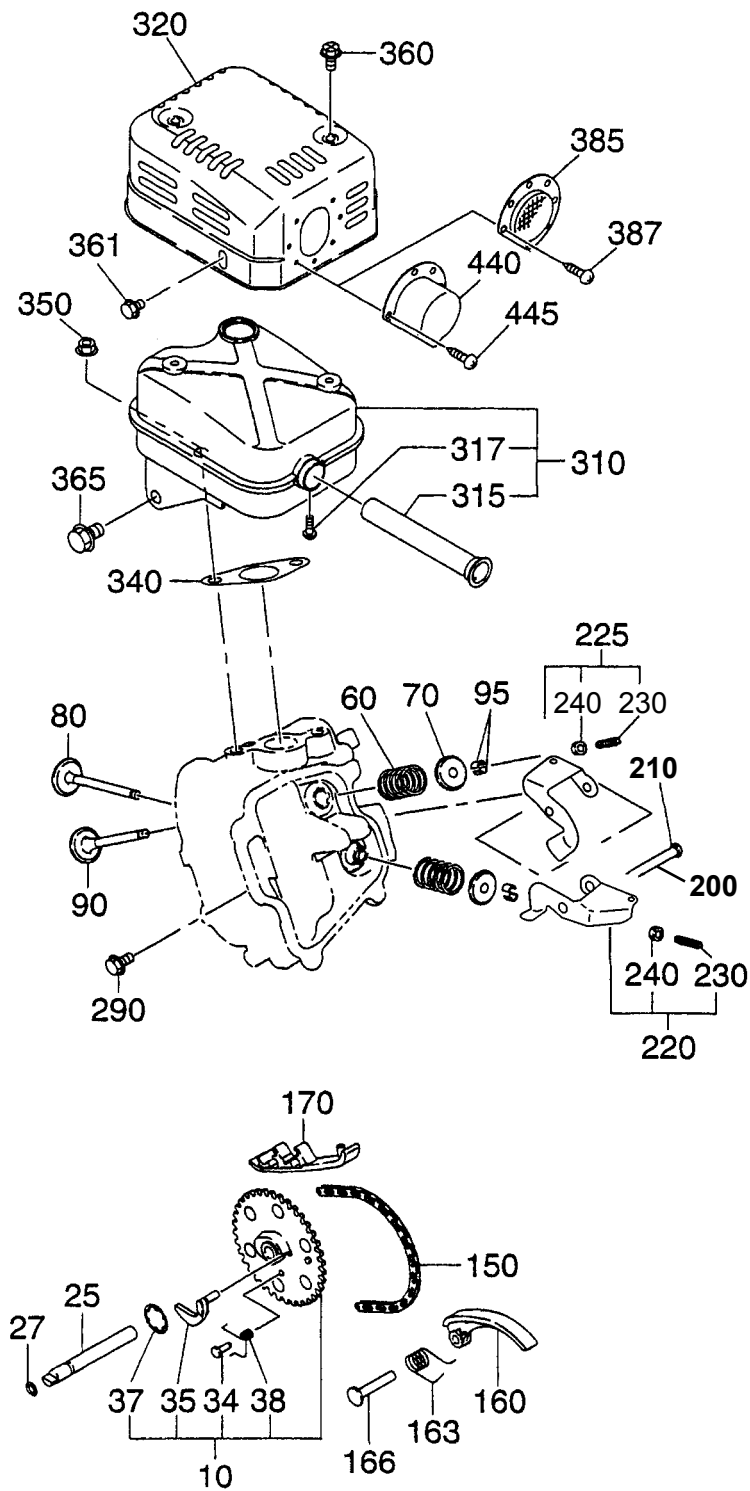


## SECTION 2 CRANKSHAFT GROUP

| REF. | PART NO.     | DESCRIPTION         | QTY. | REMARKS                           | FROM-TO | FIG. |
|------|--------------|---------------------|------|-----------------------------------|---------|------|
| 10   | 276-20901-21 | CRANKSHAFT CP       | 1    | 3/4" key, 5/16 tap - EX13         |         | 200  |
|      | 276-21001-21 | CRANKSHAFT CP       | 1    | 5/8" Pump - EX13                  |         | 200  |
|      | 276-21201-21 | CRANKSHAFT CP       | 1    | SAE Taper - EX13                  |         | 200  |
|      | 276-20201-31 | CRANKSHAFT CP       | 1    | Metric 18mm - EX13                |         | 200  |
|      | 276-20301-21 | CRANKSHAFT CP       | 1    | Metric pump 18mm - EX13           |         | 200  |
|      | 276-20701-21 | CRANKSHAFT CP       | 2    | Metric Taper - EX13               |         | 200  |
| 10   | 277-20901-21 | CRANKSHAFT CP       | 1    | 3/4" key, 5/16 tap - EX17         |         | 200  |
|      | 277-21001-21 | CRANKSHAFT CP       | 1    | 5/8" Pump - EX17                  |         | 200  |
|      | 277-21201-21 | CRANKSHAFT CP       | 1    | SAE Taper - EX17                  |         | 200  |
|      | 277-20201-21 | CRANKSHAFT CP       | 1    | Metric 20mm - EX17                |         | 200  |
|      | 277-20301-21 | CRANKSHAFT CP       | 1    | Metric Pump 20mm - EX17           |         | 200  |
|      | 277-20701-21 | CRANKSHAFT CP       | 1    | Metric Taper - EX17               |         | 200  |
| 10   | 278-20901-31 | CRANKSHAFT CP       | 1    | 3/4" key, 5/16 tap - EX21         |         | 200  |
|      | 278-21001-31 | CRANKSHAFT CP       | 1    | 5/8" Pump - EX21                  |         | 200  |
|      | 278-21201-31 | CRANKSHAFT CP       | 1    | SAE Taper - EX21                  |         | 200  |
|      | 278-20201-31 | CRANKSHAFT CP       | 1    | Metric 20mm - EX21                |         | 200  |
|      | 278-20301-21 | CRANKSHAFT CP       | 1    | Metric Pump 20mm - EX21           |         | 200  |
|      | 278-20701-21 | CRANKSHAFT CP       | 1    | Metric Taper - EX21               |         | 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                              |         | 200  |
|      | 277-22501-10 | CONNECTING ROD AY   | 1    | EX17                              |         | 200  |
|      | 278-22501-10 | CONNECTING ROD AY   | 1    | EX21                              |         | 200  |
| 320  | 277-23001-03 | CONNECTING ROD BOLT | 2    |                                   |         | 200  |
| 350  | 276-23301-03 | PISTON PIN          | 1    | EX13                              |         | 200  |
|      | 277-23301-03 | PISTON PIN          | 1    | EX17 and EX21                     |         | 200  |
| 360  | 276-23401-03 | PISTON              | 1    | EX13 - STD                        |         | 200  |
|      | 276-23403-03 | PISTON              | 1    | EX13 - Oversize 0.25mm            |         | 200  |
|      | 276-23404-03 | PISTON              | 1    | EX13 - Oversize 0.55mm            |         | 200  |
|      | 277-23401-03 | PISTON              | 1    | EX17 and EX21 - STD               |         | 200  |
|      | 277-23403-03 | PISTON              | 1    | EX17 and 21 Oversize 0.25mm       |         | 200  |
|      | 277-23404-03 | PISTON              | 1    | EX17 and EX21 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  |
|      | 276-23501-17 | PISTON RING SET     | 1    | EX13 - STD, 5 piece               |         | 200  |
|      | 276-23502-17 | PISTON RING SET     | 1    | EX13 - Oversize 0.25mm, 5 piece   |         | 200  |
|      | 276-23503-17 | PISTON RING SET     | 1    | EX13 - Oversize 0.50mm, 5 piece   |         | 200  |
| 370  | 277-23511-17 | PISTON RING SET     | 1    | EX17 and EX21 - STD               |         | 200  |
|      | 277-23512-17 | PISTON RING SET     | 1    | EX17 and EX21 Oversize 0.25mm     |         | 200  |
|      | 277-23513-17 | PISTON RING SET     | 1    | EX17 and EX21 Oversize 0.50mm     |         | 200  |
|      | 277-23501-17 | PISTON RING SET     | 1    | EX17, 21 - STD, 5 piece           |         | 200  |
|      | 277-23502-17 | PISTON RING SET     | 1    | EX17, 21-Oversize 0.25mm, 5 piece |         | 200  |
|      | 277-23503-17 | PISTON RING SET     | 1    | EX17, 21-Oversize 0.50mm, 5 piece |         | 200  |
| 380  | 215-25004-03 | CLIP                | 2    | EX13                              |         | 200  |
|      | 056-51600-10 | CLIP                | 2    | EX17 and EX21                     |         | 200  |

SECTION 3 INTAKE and EXHAUST GROUP - NEW STYLE

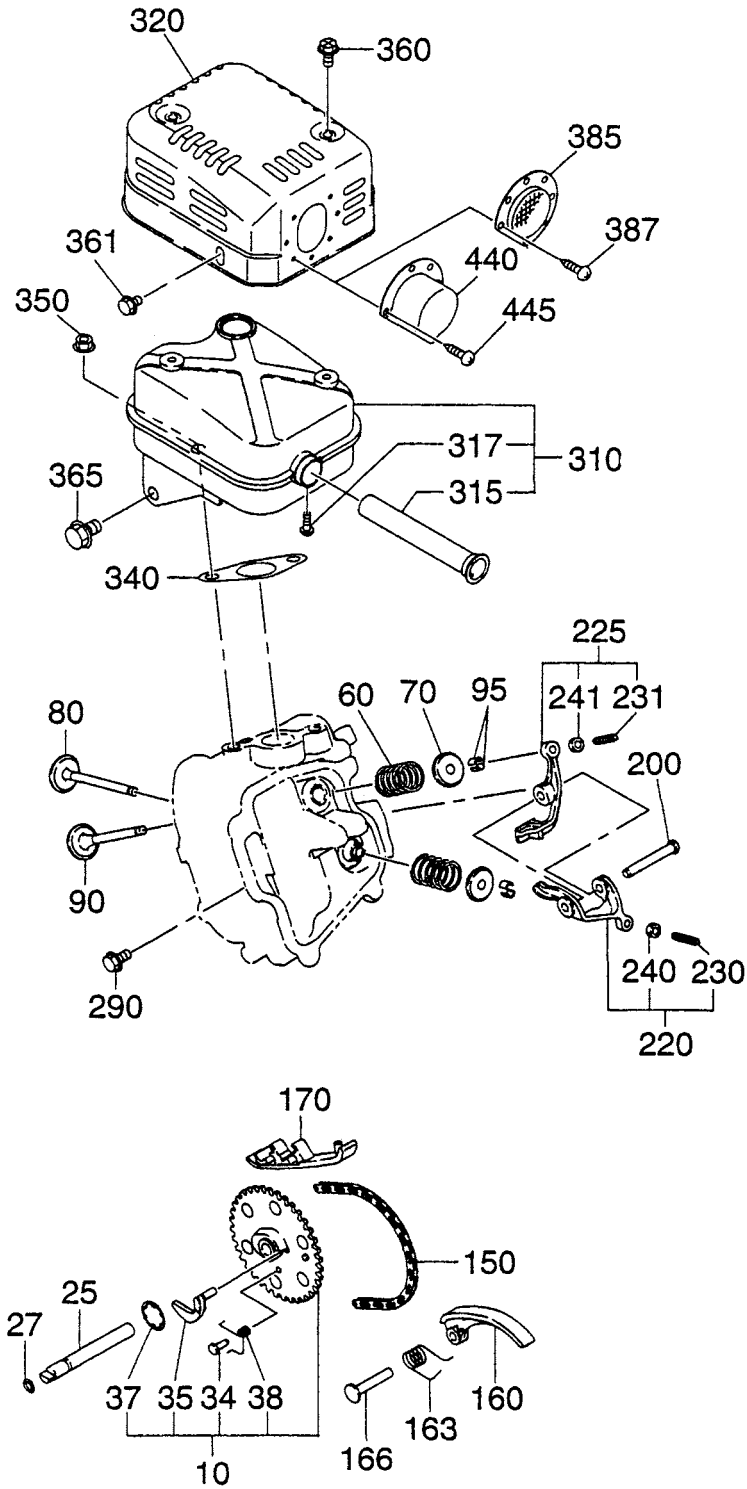
FIG. 300



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

| REF. | PART NO.     | DESCRIPTION           | QTY. | REMARKS                    | FROM-TO  | FIG. |
|------|--------------|-----------------------|------|----------------------------|----------|------|
| 10   | 277-31601-11 | 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 | RETAINER VALVE SPRING | 2    |                            | 2100000~ | 300  |
| 80   | 276-33401-33 | INTAKE VALVE          | 1    | EX13                       | 2100000~ | 300  |
|      | 277-33401-13 | INTAKE VALVE          | 1    | EX17 and EX21              | 2100000~ | 300  |
| 90   | 276-33501-33 | EXHAUST VALVE         | 1    | EX13                       | 2100000~ | 300  |
|      | 277-33501-13 | EXHAUST VALVE         | 1    | EX17 and EX21              | 2100000~ | 300  |
| 95   | 132-10KA0-31 | COLLET VALVE          | 4    |                            | 2100000~ | 300  |
| 150  | 276-35601-11 | TIMING CHAIN CP       | 1    | EX13                       | 2100000~ | 300  |
|      | 277-35601-11 | TIMING CHAIN CP       | 1    | EX17                       | 2100000~ | 300  |
|      | 278-35601-11 | TIMING CHAIN CP       | 1    | EX21                       | 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  | 277-35002-03 | PIN, rocker           | 1    |                            | 2100000~ | 300  |
| 210  | 003-13050-00 | CLIP                  | 1    |                            | 2100000~ | 300  |
| 220  | 277-36201-00 | ROCKER ARM AY, in     | 1    |                            | 2100000~ | 300  |
| 225  | 277-36202-00 | ROCKER ARM AY, ex     | 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  | 276-30101-11 | MUFFLER CP            | 1    | EX13                       | 2100000~ | 300  |
|      | 277-30101-11 | MUFFLER CP            | 1    | EX17                       | 2100000~ | 300  |
|      | 278-30101-11 | MUFFLER CP            | 1    | EX21                       | 2100000~ | 300  |
| 310  | 276-30111-01 | MUFFLER CP            | 1    | EX13, w/ spark arrestor    | 2100000~ | 300  |
|      | 277-30111-01 | MUFFLER CP            | 1    | EX17,21, w/ spark arrestor | 2100000~ | 300  |
| 315  | 277-37601-01 | SPARK ARRESTOR        | 1    |                            | 2100000~ | 300  |
| 317  | 015-00400-60 | TAPPING SCREW         | 1    |                            | 2100000~ | 300  |
| 320  | 277-34201-11 | MUFFLER COVER         | 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  | 277-37001-01 | DEFLECTOR CP          | 1    |                            | 2100000~ | 300  |
| 445  | 015-00400-60 | TAPPING SCREW         | 2    |                            | 2100000~ | 300  |
|      |              |                       |      |                            |          |      |
|      |              |                       |      |                            |          |      |
|      |              |                       |      |                            |          |      |

FIG. 300



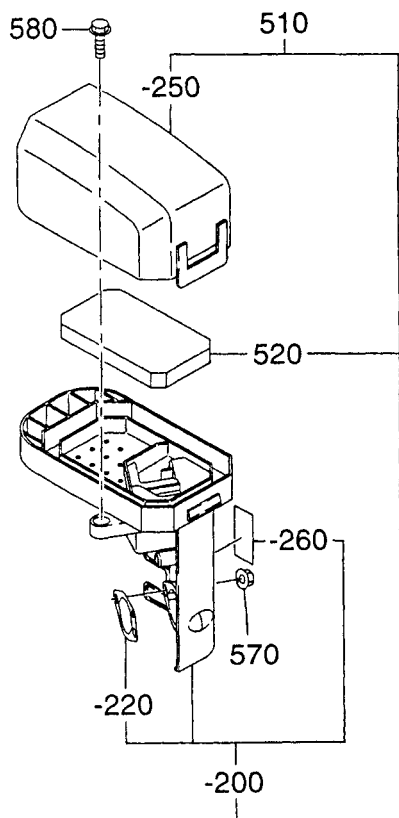
## SECTION 3 INTAKE and EXHAUST GROUP - OLD STYLE

| REF. | PART NO.     | DESCRIPTION           | QTY. | REMARKS                       | FROM-TO  | FIG. |
|------|--------------|-----------------------|------|-------------------------------|----------|------|
| 10   | 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   | 276-33401-33 | INTAKE VALVE          | 1    | EX13                          | ~2099999 | 300  |
|      | 277-33401-13 | INTAKE VALVE          | 1    | EX17 and EX21                 | ~2099999 | 300  |
| 90   | 276-33501-33 | EXHAUST VALVE         | 1    | EX13                          | ~2099999 | 300  |
|      | 277-33501-13 | EXHAUST VALVE         | 1    | EX17 and EX21                 | ~2099999 | 300  |
| 95   | 132-10KA0-31 | COLLET VALVE          | 4    |                               | ~2099999 | 300  |
| 150  | 276-35601-01 | TIMING CHAIN CP       | 1    | EX13                          | ~2099999 | 300  |
|      | 277-35601-01 | TIMING CHAIN CP       | 1    | EX17                          | ~2099999 | 300  |
|      | 278-35601-01 | TIMING CHAIN CP       | 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, in     | 1    |                               | ~2099999 | 300  |
| 225  | 277-36102-00 | ROCKER ARM AY, ex     | 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 CP            | 1    | EX13                          | ~2099999 | 300  |
|      | 277-30101-11 | MUFFLER CP            | 1    | EX17                          | ~2099999 | 300  |
|      | 278-30101-11 | MUFFLER CP            | 1    | EX21                          | ~2099999 | 300  |
|      | 276-30111-01 | MUFFLER CP            | 1    | EX13 - w/spark arrestor       | ~2099999 | 300  |
|      | 277-30111-01 | MUFFLER CP            | 1    | EX17,EX21 - w/ spark arrestor | ~2099999 | 300  |
| 315  | 277-37601-01 | SPARK ARRESTOR        | 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  |

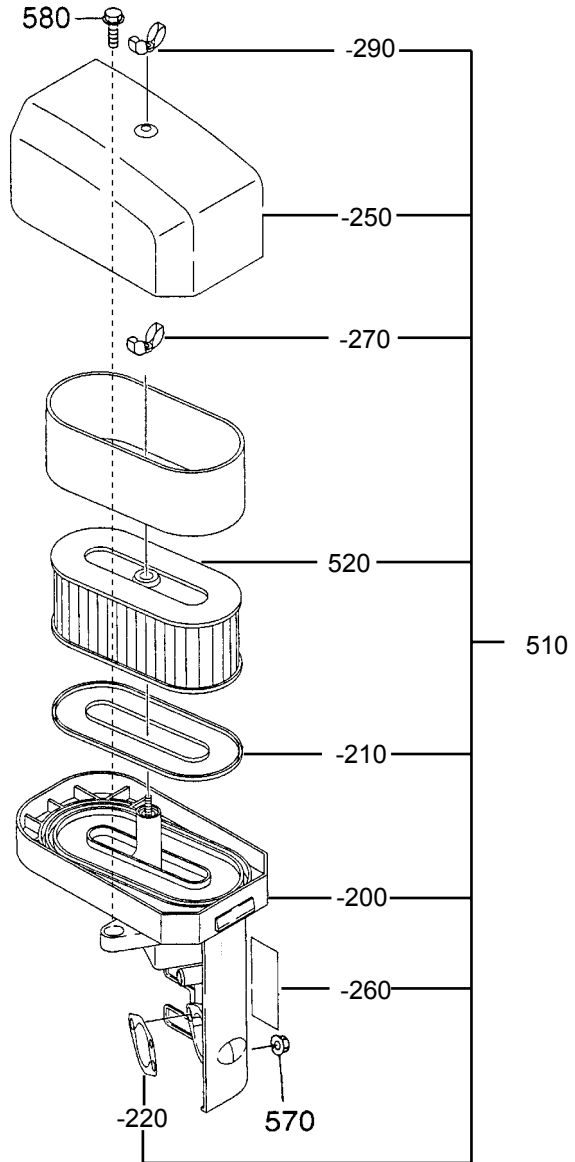
# SECTION 3 INTAKE and EXHAUST GROUP

FIG. 310

**A**



**B**



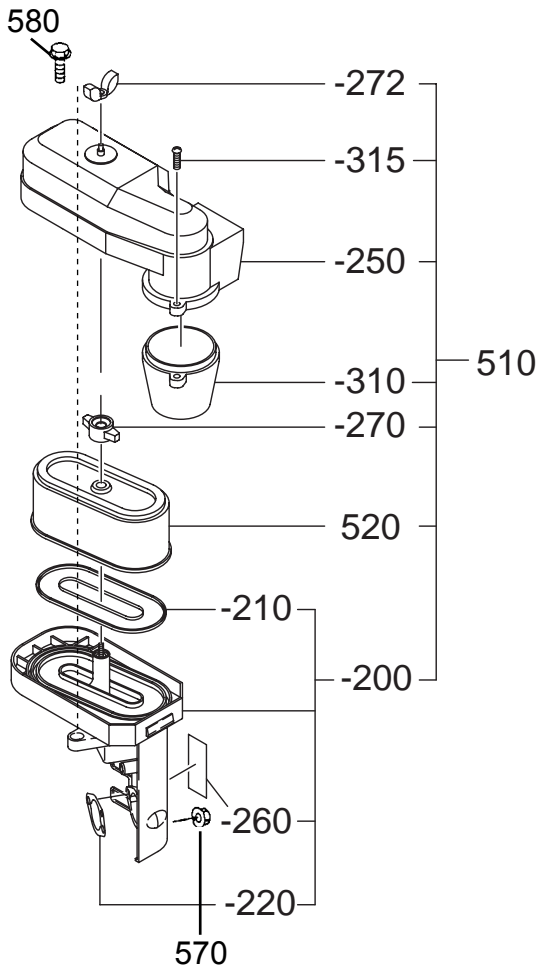


SECTION 3 INTAKE and EXHAUST GROUP

FIG. 320

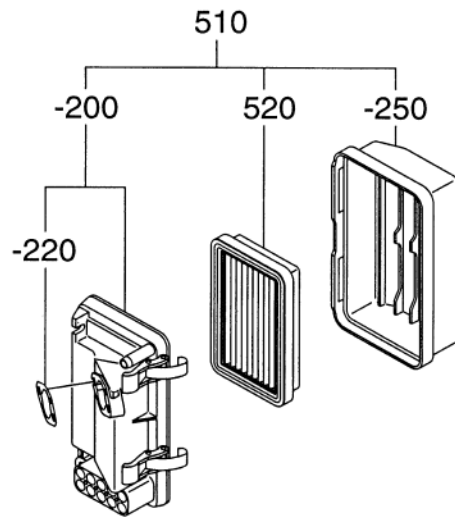
Cyclone Pre-Cleaner

(C)



(D)

Low Profile

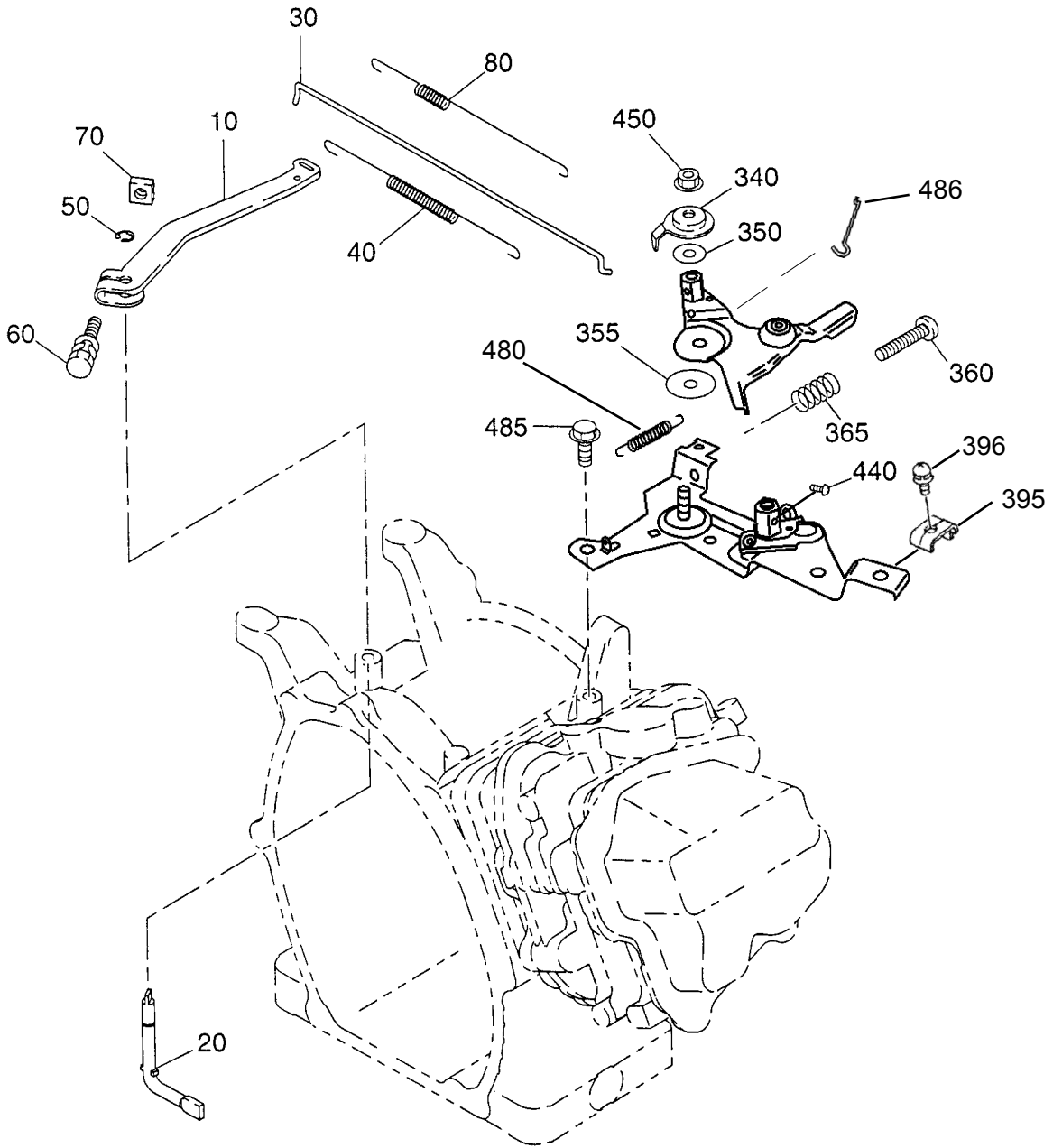






SECTION 4 GOVERNOR GROUP - New Style

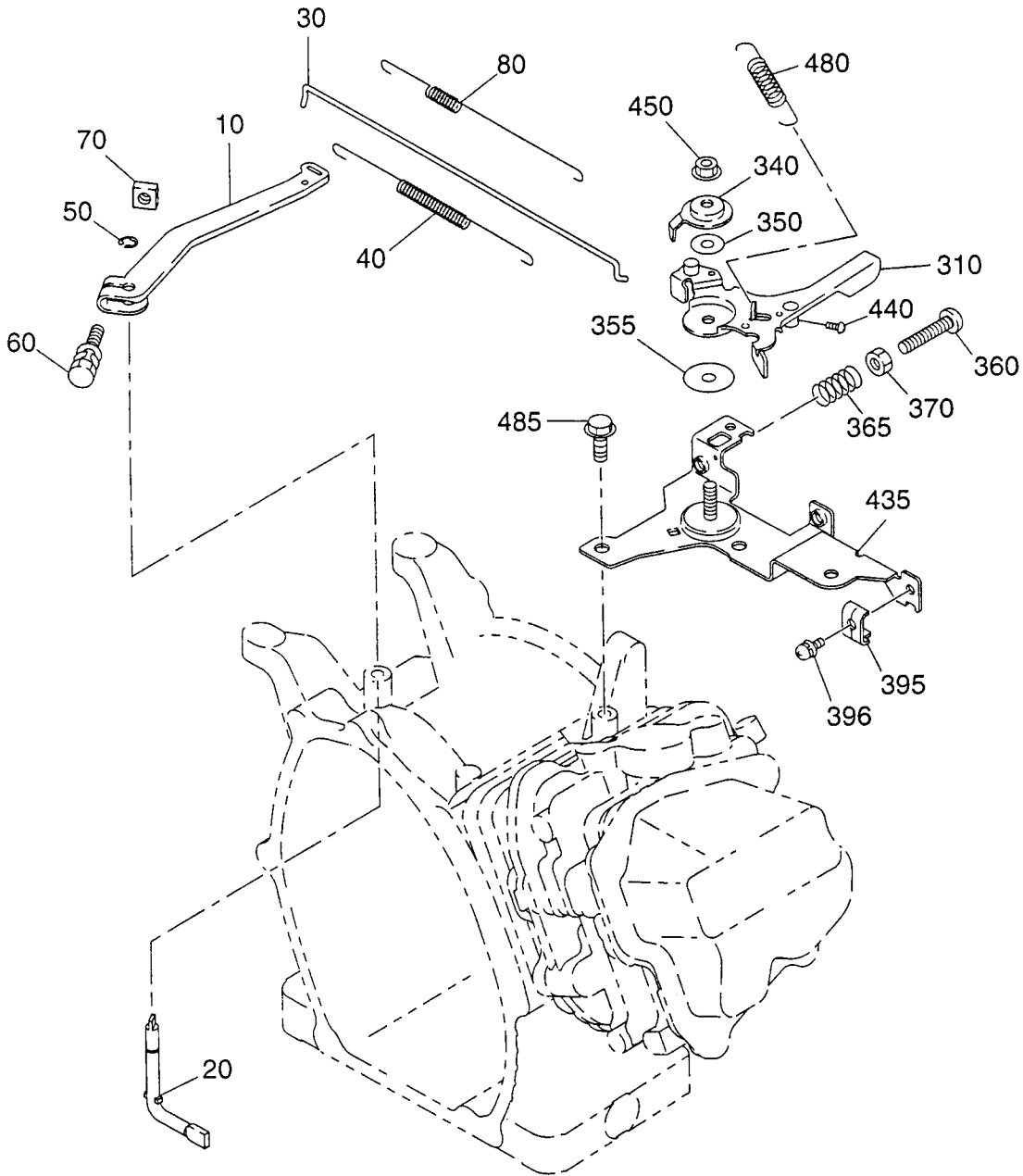
FIG. 400





SECTION 4 GOVERNOR GROUP - Old Style

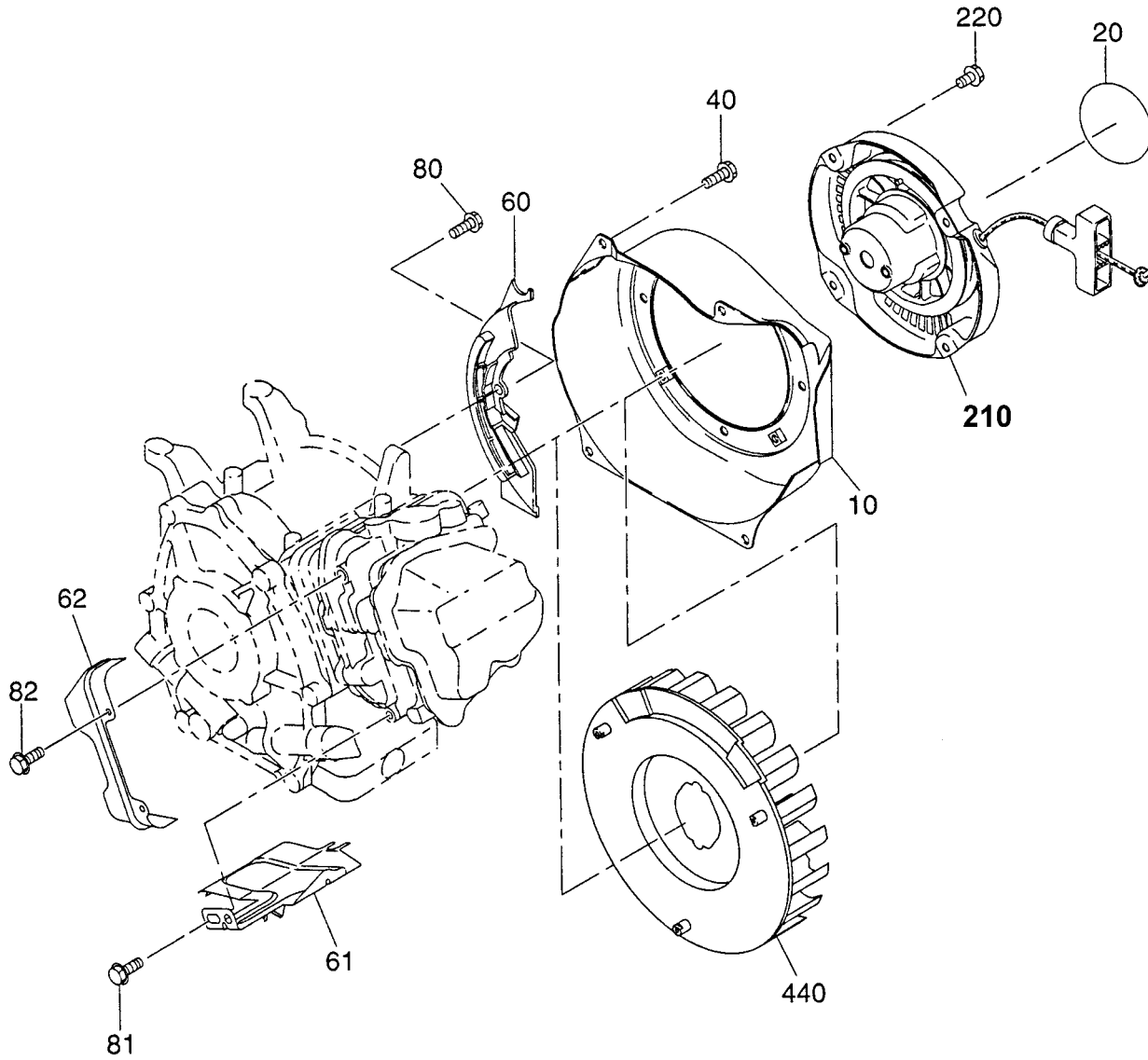
FIG. 400





SECTION 5 COOLING and STARTING GROUP

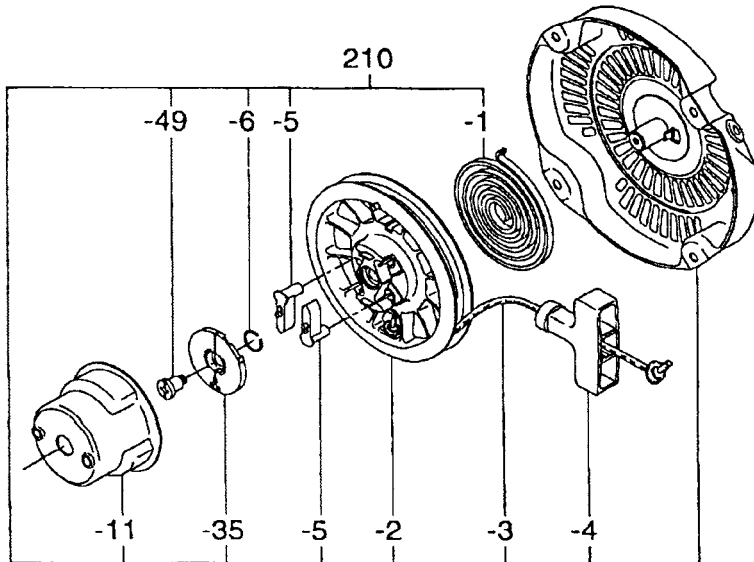
FIG. 500





SECTION 5 COOLING and STARTING GROUP

FIG. 510

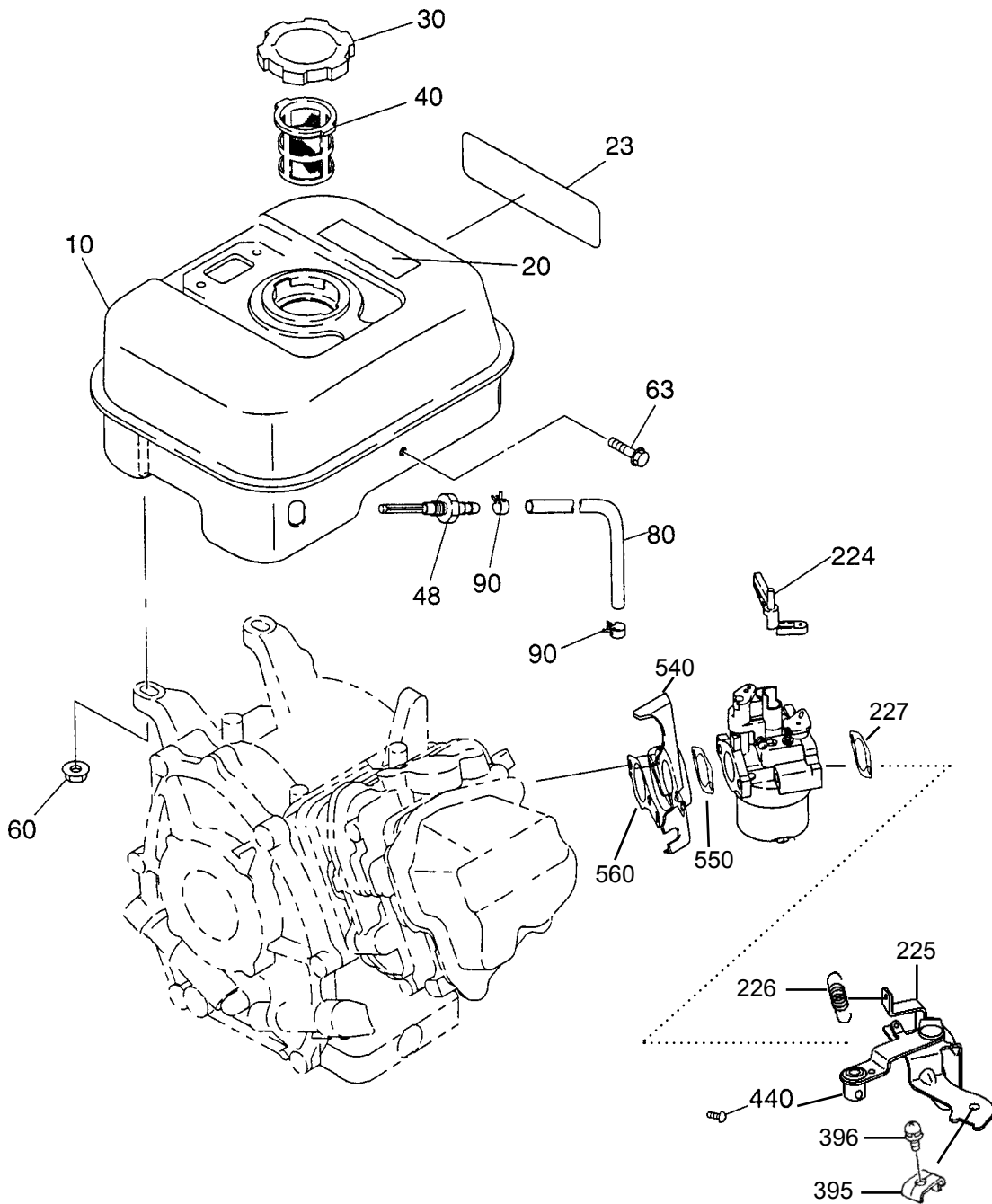






SECTION 6 FUEL, LUBRICATION GROUP

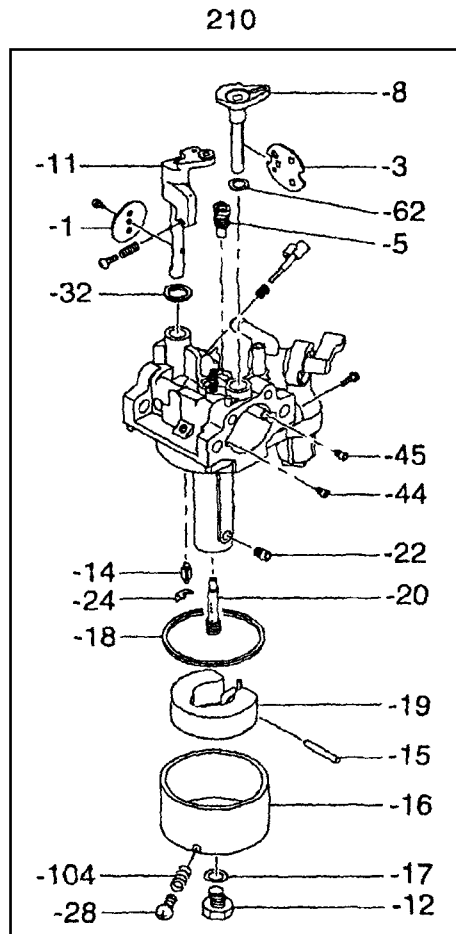
FIG. 600





SECTION 6 FUEL, LUBRICATION GROUP

FIG. 610

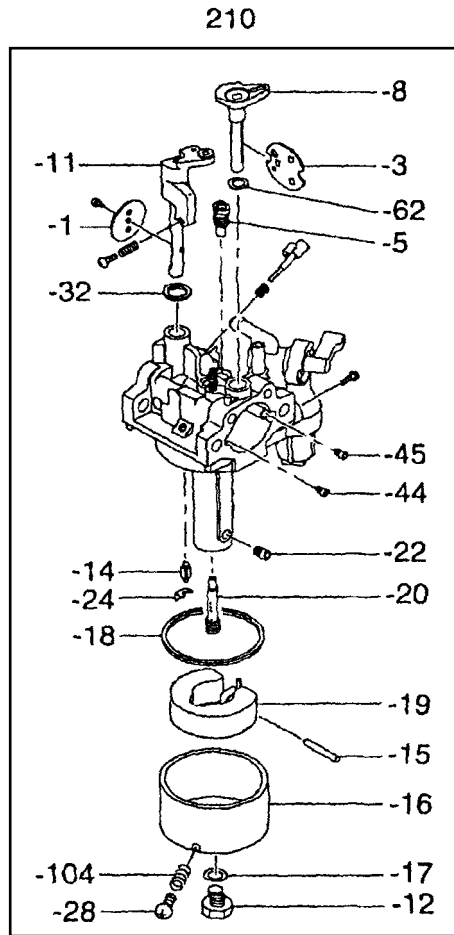


## SECTION 6 FUEL, LUBRICATION GROUP

| REF. | PART NO.     | DESCRIPTION     | QTY. | REMARKS                             | FROM-TO | FIG. |
|------|--------------|-----------------|------|-------------------------------------|---------|------|
| 210  | 276-62301-10 | CARBURETOR      | 1    | EX13, Foam                          |         | 610  |
|      | 276-62302-10 | CARBURETOR      | 1    | EX13, Dual Element                  |         | 610  |
|      | 276-62304-20 | CARBURETOR      | 1    | EX13, Low Profile                   |         | 610  |
| 210  | 277-62301-10 | CARBURETOR      | 1    | EX17, Foam                          |         | 610  |
|      | 277-62302-10 | CARBURETOR      | 1    | EX17, Dual Element                  |         | 610  |
|      | 277-62304-20 | CARBURETOR      | 1    | EX17, Low Profile                   |         | 610  |
|      | 277-62303-00 | CARBURETOR      | 1    | EX17, Cyclone Pre-Cleaner           |         | 610  |
| 210  | 278-62301-10 | CARBURETOR      | 1    | EX21, Foam                          |         | 610  |
|      | 278-62302-10 | CARBURETOR      | 1    | EX21, Dual Element                  |         | 610  |
|      | 278-62304-20 | CARBURETOR      | 1    | EX21, Low Profile                   |         | 610  |
| -1   | 106-62538-08 | THROTTLE VALVE  | 1    | EX13                                |         | 610  |
|      | 277-62535-08 | THROTTLE VALVE  | 1    | EX17, 21                            |         | 610  |
| -3   | 277-62525-08 | CHOKE VALVE     | 1    | Foam / Dual Element                 |         | 610  |
|      | 277-62527-08 | CHOKE VALVE     | 1    | Low Profile / Cyclone (17)          |         | 610  |
| -5   | 246-62420-08 | PILOT JET       | 1    | EX13, 17                            |         | 610  |
|      | 278-62420-08 | PILOT JET       | 1    | EX21                                |         | 610  |
| -8   | 277-62520-08 | CHOKE LEVER     | 1    |                                     |         | 610  |
|      | 277-62560-08 | CHOKE LEVER     | 1    | Low Profile                         |         | 610  |
| -11  | 276-62530-08 | THROTTLE SHAFT  | 1    | EX13, Foam                          |         | 610  |
|      | 276-62531-08 | THROTTLE SHAFT  | 1    | EX13, Dual Element / Low Profile    |         | 610  |
| -11  | 277-62530-08 | THROTTLE SHAFT  | 1    | EX17, 21, Foam                      |         | 610  |
|      | 277-62531-08 | THROTTLE SHAFT  | 1    | EX17,21, Dual Element / Low Profile |         | 610  |
| -12  | 227-62451-08 | BOLT            | 1    |                                     |         | 610  |
| -14  | 277-62500-08 | NEEDLE          | 1    |                                     |         | 610  |
| -15  | 277-62515-08 | PIN             | 1    |                                     |         | 610  |
| -16  | 277-62506-08 | FLOAT BODY      | 1    |                                     |         | 610  |
| -17  | 214-62450-08 | PACKING         | 1    |                                     |         | 610  |
| -18  | 214-62540-08 | CHAMBER PACKING | 1    |                                     |         | 610  |
| -19  | 226-62506-08 | FLOAT           | 1    |                                     |         | 610  |
| -20  | 276-62440-08 | MAIN NOZZLE     | 1    | EX13                                |         | 610  |
|      | 277-62440-08 | MAIN NOZZLE     | 1    | EX17                                |         | 610  |
|      | 278-62440-08 | MAIN NOZZLE     | 1    | EX21                                |         | 610  |
| -22  | 277-62404-08 | MAIN JET        | 1    | EX13, Foam / Low Profile            |         | 610  |
|      | 252-62405-08 | MAIN JET        | 1    | EX13, Dual Element                  |         | 610  |
| -22  | 277-62402-08 | MAIN JET        | 1    | EX17, Foam                          |         | 610  |
|      | 226-62412-08 | MAIN JET        | 1    | EX17, Dual Element                  |         | 610  |
|      | 277-62412-08 | MAIN JET        | 1    | EX17, Low Profile / Cyclone (17)    |         | 610  |
| -22  | 278-62403-08 | MAIN JET        | 1    | EX21, Foam / Low Profile            |         | 610  |
|      | 277-62405-08 | MAIN JET        | 1    | EX21, Dual Element                  |         | 610  |
| -24  | 226-62701-18 | CLIP            | 1    |                                     |         | 610  |
| -28  | 277-62360-08 | BOLT            | 1    |                                     |         | 610  |
| -32  | 246-62390-08 | THROTTLE SEAL   | 1    | Dual, Low Profile, Cyclone          |         | 610  |
| -44  | 207-62410-08 | AIR JET         | 1    | EX13                                |         | 610  |
|      | 248-62410-08 | AIR JET         | 1    | EX17                                |         | 610  |
|      | 106-62411-08 | AIR JET         | 1    | EX21                                |         | 610  |
| -45  | 106-62410-08 | AIR JET, PILOT  | 1    |                                     |         | 610  |

SECTION 6 FUEL, LUBRICATION GROUP

FIG. 610





**SECTION 7 ELECTRIC DEVICE GROUP**

**FIG. 700**

For 200 Watt  
Charging

**EX21**

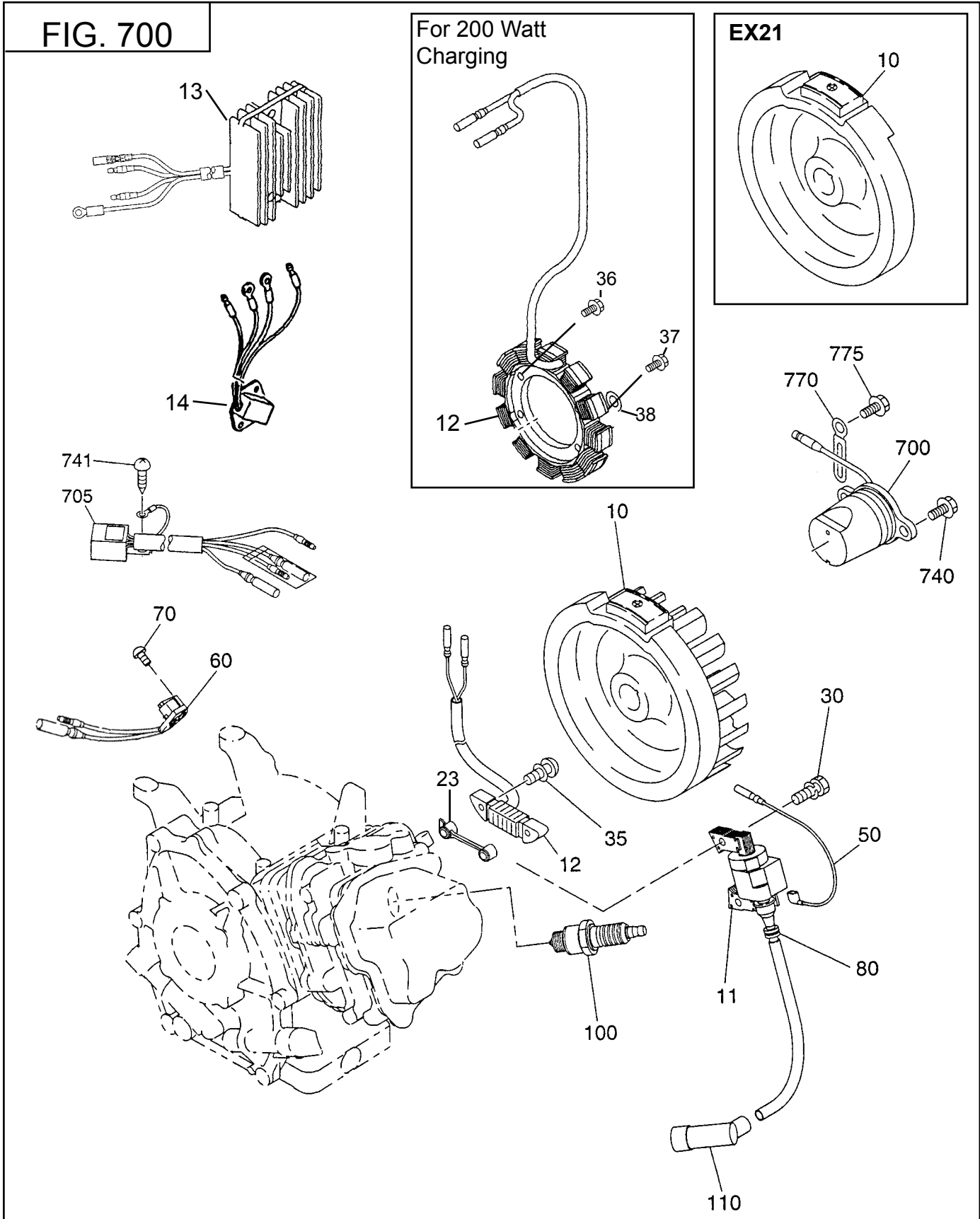
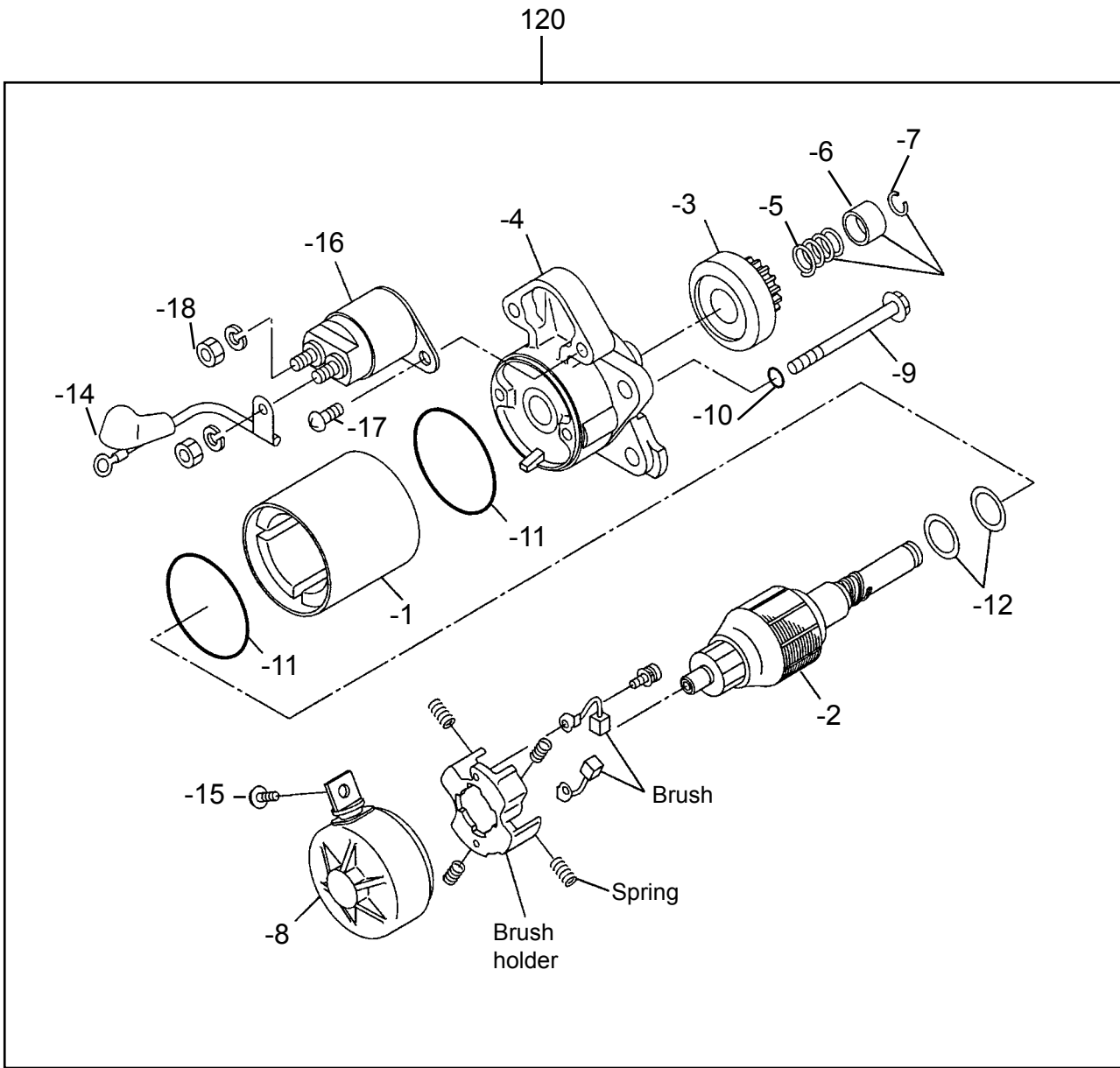






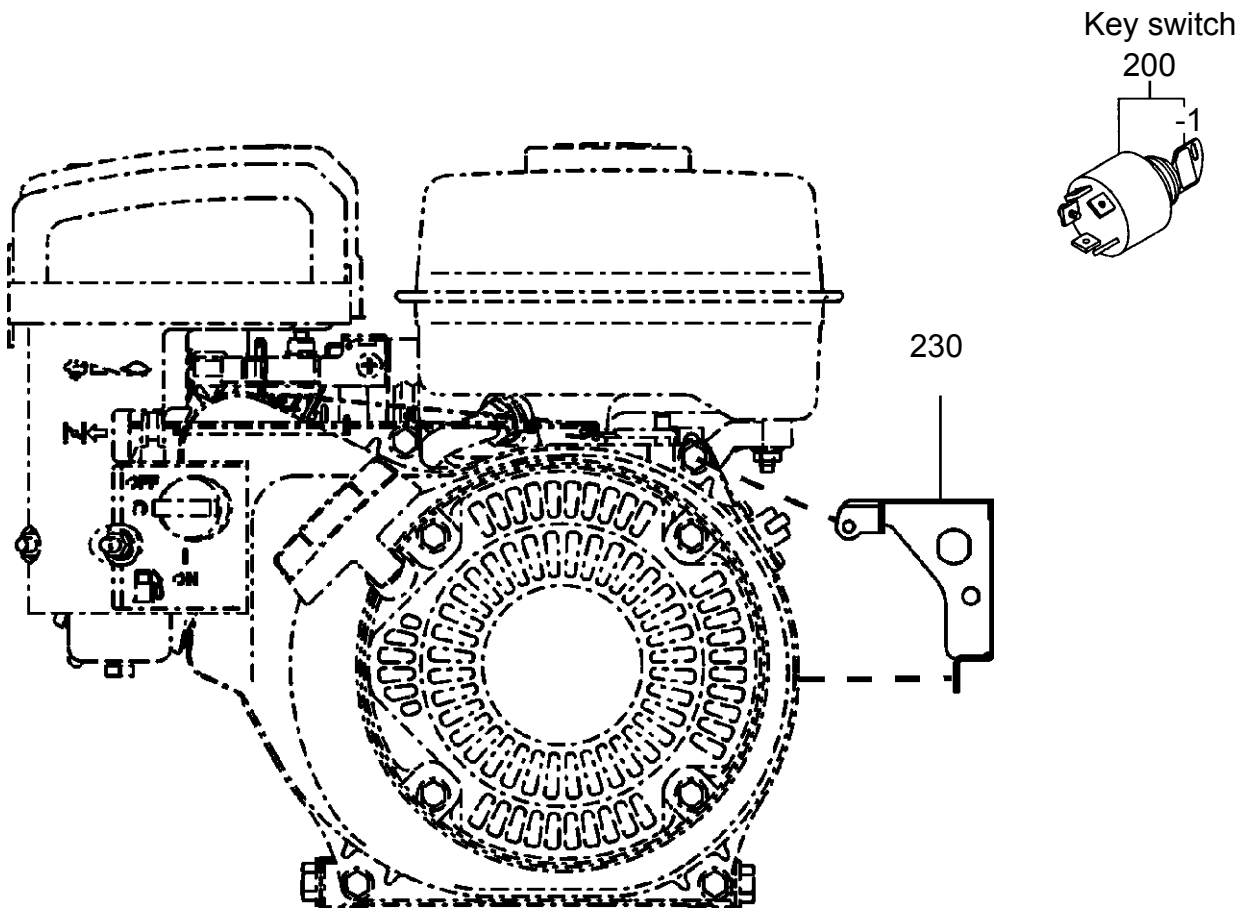
FIG. 710





SECTION 7 ELECTRIC DEVICE GROUP - CONTROL BOX

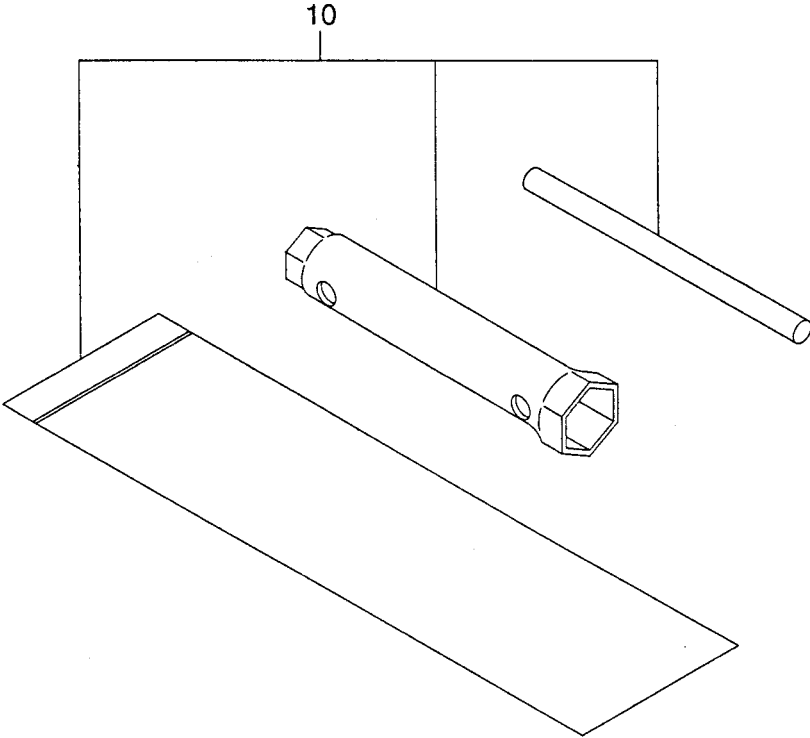
FIG. 720





SECTION 9 ACCESSORY GROUP

FIG. 900





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