

DESCRIPTION

The ignition system on the 60 HP Sportfour consists of a distributor type magneto, high tension leads, and spark plugs.

MAGNETO

The magneto uses a single coil, two permanent magnets cast into the magneto housing, breaker points, and a rotor to develop the high voltage necessary for ignition. The high voltage developed in the magneto coil is distributed to each of the four spark plugs by the rotor through the distributor cap and high tension leads. The magneto rotor, breaker point cam, and distributor rotor are driven by a timing belt which synchronizes the magneto with the crankshaft. See Figure 4-1.

BREAKER POINTS AND CONDENSER

A double set of breaker points is mounted on the breaker plate. The cam has two lobes 180° apart and the breaker points are located 90° apart on the breaker plate, thus interrupting the current through

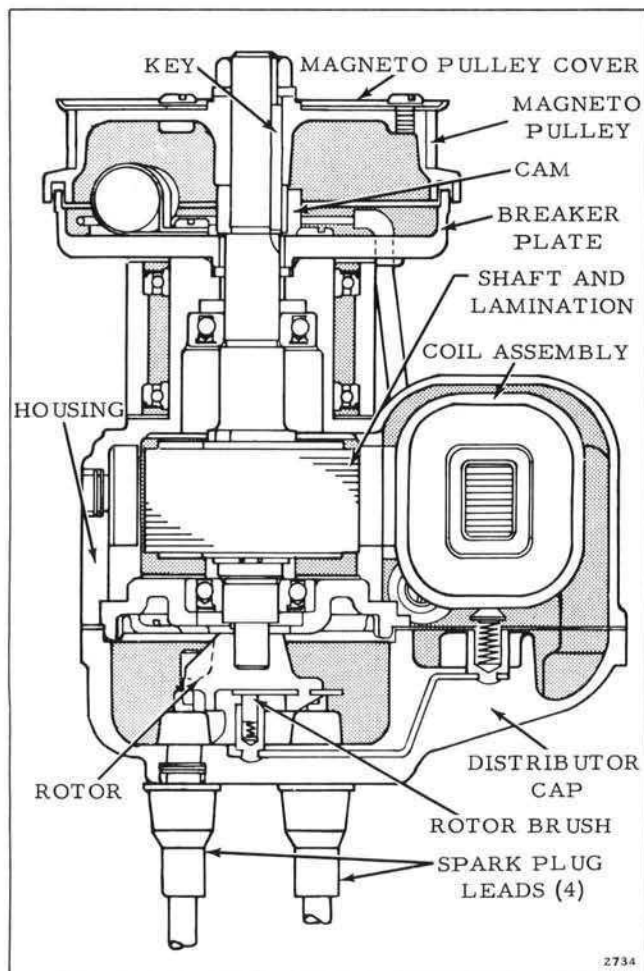


Figure 4-1. Magneto - Cutaway View

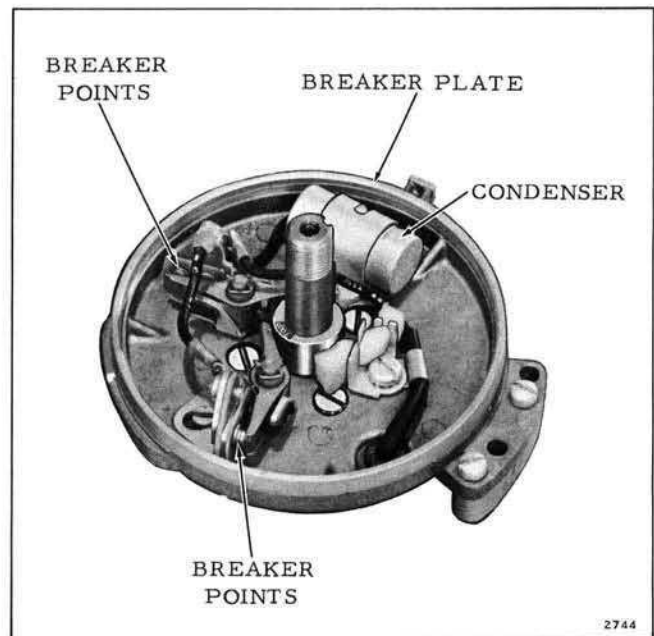


Figure 4-2. Breaker Plate

the magneto coil four times in each revolution. The condenser momentarily absorbs the current flowing through the primary of the coil after the points open and hastens the collapse of the magnetic field by creating a high frequency oscillation in the circuit. The condenser also reduces pitting of the breaker points by absorbing any sparking across them. See Figure 4-2.

SPARK PLUGS

Spark plugs having the proper heat range are very important for peak operation of the motor. Evinrude motors are designed to operate with M42K, J4J, or A21X spark plugs. Spark plugs are classified according to the temperatures at which they are designed to operate, HOT or COLD. See Figure 4-3.

Selection of the correct spark plug depends on the type of service to which it is subjected. Unless the

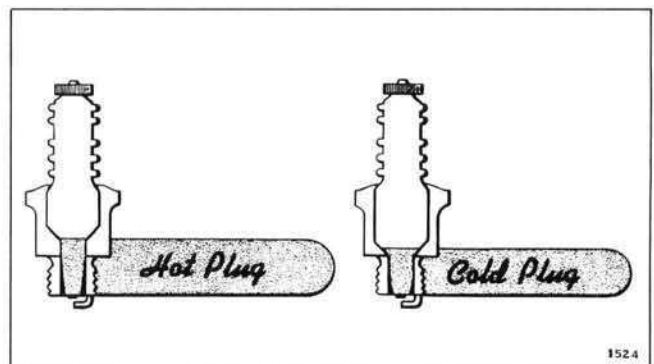


Figure 4-3. HOT and COLD Plugs