Electric Fuel Pumps

MAZDA ELECTRIC FUEL PUMPS

Mazda 616
Mazda 808
Mazda Pickup B1600

DESCRIPTION

Mazda electric fuel pump is a pulsating diaphragm type. Check valves are used to control fuel flow direction and contact points control electric current to electromagnet.

OVERHAUL

DISASSEMBLY

NOTE – Mark the air chamber, valve chamber and diaphragm assembly so the inlet and outlet valves are properly located when the pump is reassembled.

1) Loosen screws attaching the air chamber and valve chamber to diaphragm assembly. Loosen attaching screw of valve retainers and remove retainer and valves from valve chamber. Remove cover by loosening screws.

2) Disconnect wiring from switch and remove switch from pump body. Remove body from diaphragm assembly by loosening screw.

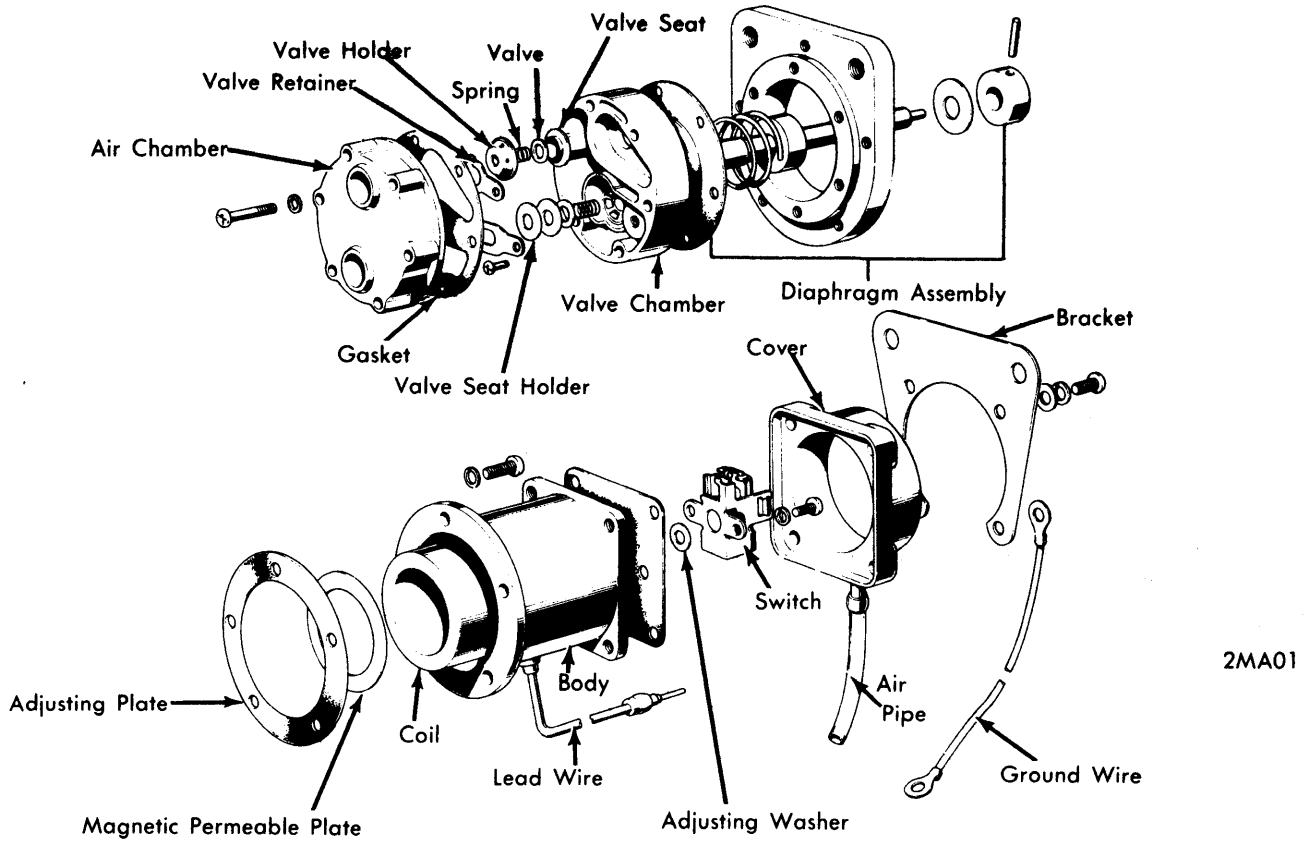
REASSEMBLY

To reassemble pump, reverse disassembly procedure and note following: When reassembling pump, check diaphragm shaft stroke and switch contact point gap.

TESTING

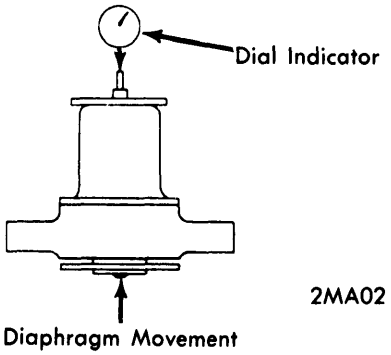
Pressure Test – Connect a suitable fuel pump pressure gauge to discharge side of pump. Switch ignition on, but do not start engine. Pump is good if output pressure is 2.8-3.6 psi.

Volume Test – Pump output should be 1000 cc (2.1 pts.) per minute, except model 808, should have 800 cc (1.68 pts.) per minute.



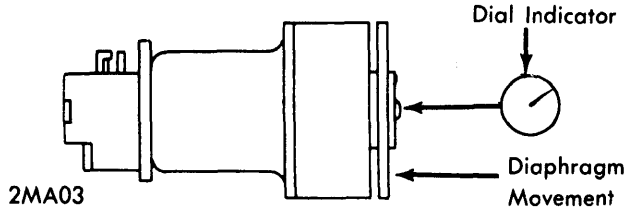
FUEL PUMP EXPLODED VIEW (TYPICAL)

MAZDA ELECTRIC FUEL PUMPS (Cont.)



CHECKING DIAPHRAGM SHAFT STROKE

Checking Diaphragm Shaft Stroke – After installing pump body on diaphragm assembly, depress diaphragm and check shaft stroke at end of shaft. Shaft specified stroke is .11-.12" (2.8-3.0 mm). To adjust shaft stroke, adjusting plates are available in thicknesses of .004", .010" and .020" sizes.

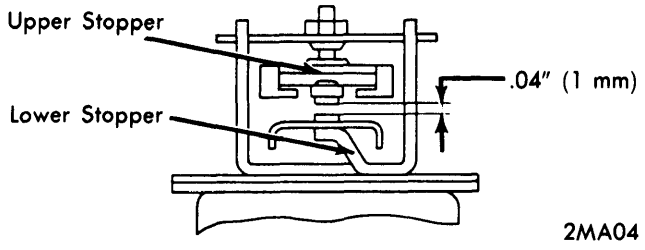


CHECKING SWITCH

Checking Switch Contact Gap – 1) After installing switch to body, measure diaphragm shaft movement with a suitable dial indicator while noting when switch contacts make and break. Set the dial indicator and depress and release diaphragm. The specified switching position is .02-.04" (.5-1 mm) from each stroke end. If switch position deviates from the specified, adjust as follows:

2) If points open too early and close too late, decrease thickness of adjusting washer located between diaphragm shaft and lever. If switch opens too late and closes too early, increase washer thickness. Washers in the following sizes are available: .010" and .024" (.25 mm and .6 mm).

3) If points open earlier than the standard, bend upper stopper upward. If points open too late, bend it downward. If points close later than standard, bend lower stopper upward. If points close too early, bend lower stopper downward. Adjustment by upper and lower stoppers requires that both stoppers be bent at the same time. Point gap should be .04" (1 mm).



ADJUSTING POINT GAP