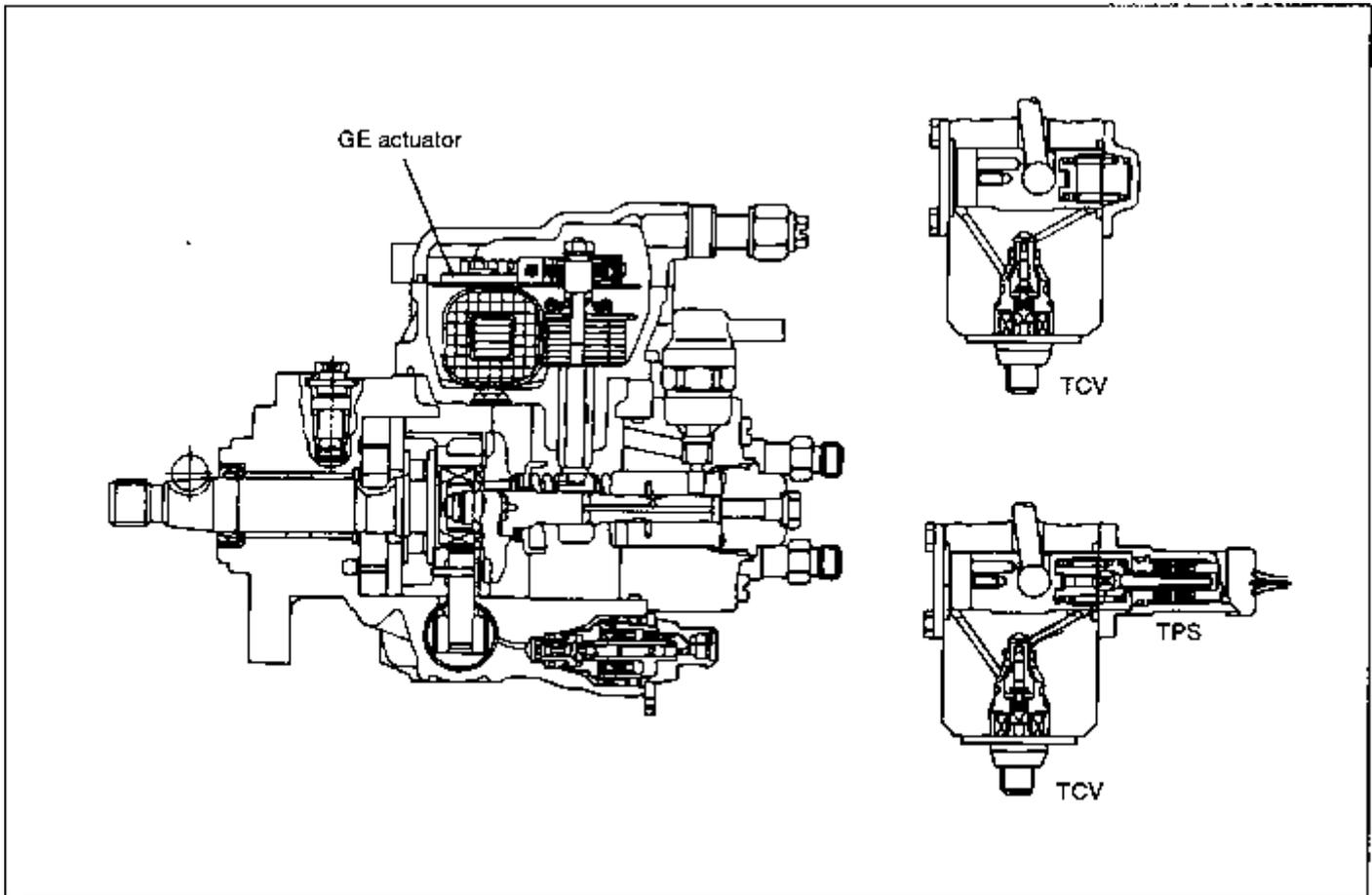


## CONSTRUCTION EFM6160

## COVEC-F BODY



EFM616A

Refer to the VE type injection pump service manual for conventional injection pump construction and parts with common construction.

Fuel intake and pressure delivery by COVEC-F is identical to that of the conventional injection pump. The inside of the pump is separated into a governor chamber, where fuel injection quantity control is performed, and a pump chamber, where fuel intake and delivery are performed.

The conventional injection pump is controlled by a centrifugal governor. COVEC-F, however, utilizes a GE actuator (ie, an electronic governor). Flyweights are not utilized. Therefore, there is no control lever at the upper cover. Instead, the control unit cable is connected to the upper part of the injection pump. Also, the conventional injection pump utilizes a flyweight holder gear (with 23 teeth) to detect pump speed. COVEC-F, however, utilizes a sensing gear plate provided on the drive shaft to detect pump speed. The number of projections on the gear plate corresponds to the number of engine cylinders.

A TCV (timing control valve) is provided at the lower part of the pump body between the timer's high pressure and low pressure chambers to adjust pressure to that necessary for advance timing. The conventional injection pump

is sometimes equipped with a check valve inside the overflow valve. With COVEC-F, however, the overflow valve is always equipped with a check valve to prevent overflow until a fixed pressure is reached. COVEC-F-II is provided with a TPS (timing position sensor) at the lower part of the injection pump to detect timer piston position.