

4 - ROTARY ENGINE CONTROLS

Lubrication System (Metering Oil Pump)

A rotary engine uses engine oil for many purposes. Oil lubricates the main rotor bearings and helps prevent wear of the gas seals in the working chambers. Oil also improves airtightness in the working chambers.

Engine oil also cools the rotors. Oil jets in the eccentric shaft inject oil into the inner part of the rotor. Each time the rotor turns one full turn, rotational forces cause two discharges and drainages of the oil within the rotor. Figure 4-13 shows the oil flow path through a rotary engine lubrication system.

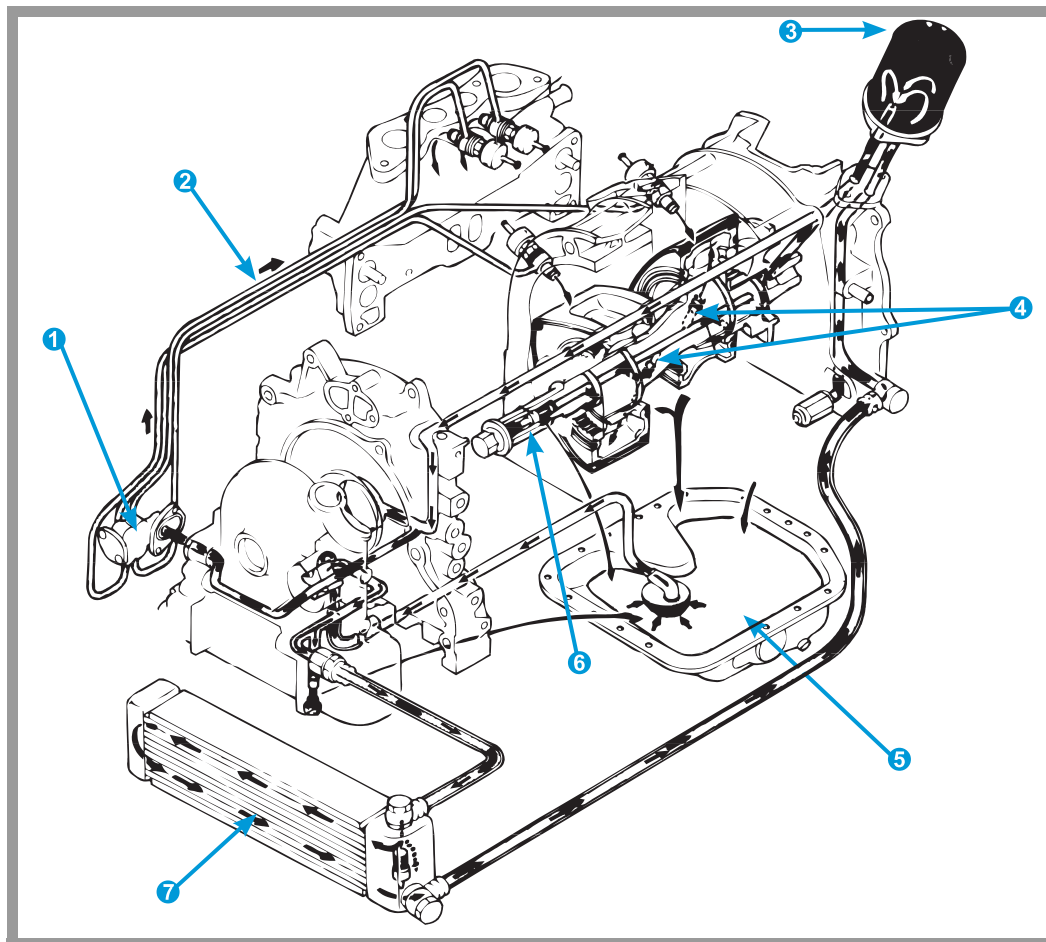


FIGURE 4-13. Rotary engines use oil for lubrication, cooling, and to improve sealing in the engine's working chambers.

- ① Metering oil pump
- ② Oil flow path
- ③ Oil filter
- ④ Eccentric shaft oil jet plugs
- ⑤ Oil pan
- ⑥ Eccentric shaft bypass valve
- ⑦ Oil cooler