

# LUBRICATION

## ENGINE OILING SYSTEM

Oil supply from pan is forced through lubrication system by rotor oil pump. Oil flows through full-flow oil filter, which routes oil into main oil gallery. See **Fig. 11**.

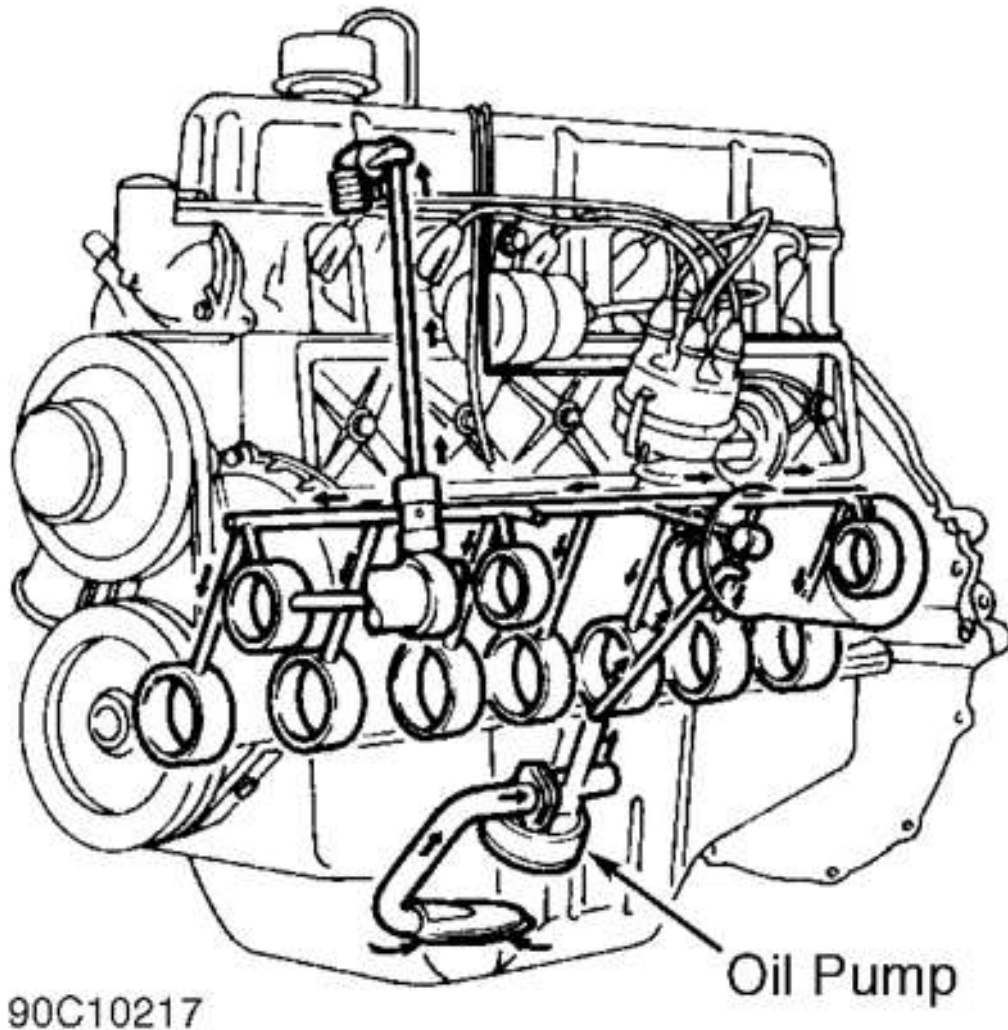
Oil gallery supplies oil to all internal engine bearings and lifters. Oil from lifters is forced through push rods to lubricate valve train. Timing gears are lubricated by splash method. Spring-loaded oil pressure relief valve is located in pump body and is nonadjustable.

### **Crankcase Capacity**

Crankcase capacity is 5 qts. (4.75L). Add 1 qt. (.95L) when replacing oil filter.

### **Oil Pressure**

Normal oil pressure at 2000 RPM should be 40-60 psi (2.8-4.2 kg/cm<sup>2</sup>) with engine at normal operating temperature.



**Fig. 11: Cross-Sectional View Of Engine Oil Circuit**  
Courtesy of FORD MOTOR CO.

## **OIL PUMP**

### **Removal & Disassembly**

Remove oil pan. See **OIL PAN** under REMOVAL & INSTALLATION. Remove oil pump retaining bolts and remove oil pump assembly. Disassemble oil pump. Note location of component installation for reassembly reference.

### **Inspection**

Inspect components for damage. Measure rotor end play, rotor tip clearance and outer rotor-to-housing clearance. Measure relief valve-to-bore clearance and relief valve spring tension. Replace oil pump assembly if measurements are not within specifications. Refer to the **OIL PUMP SPECIFICATIONS**

table.

**NOTE:** Oil pump is serviced as an assembly only. Replace assembly if measurements are not within specification. See OIL PUMP SPECIFICATIONS table.

### OIL PUMP SPECIFICATIONS

Application	In. (mm)
Drive Shaft-To-Housing Clearance	.0015-.0030 (.038-.076)
Outer Rotor-To-Housing Clearance	.001-.013 (.03-.33)
Relief Valve Spring Tension <sup>(1)</sup>	20.6-22.6 @ 2.49 (9.3-10.3@63.2)
Relief Valve-To-Bore Clearance	.0015-.0030 (.038-.076)
Rotor End Play	.004 (.10) Max.
Rotor Tip Clearance	.012 (.31) Max.
(1) Lbs. @ In. (Kg @ mm).	

### Reassembly & Installation

1. To reassemble, reverse disassembly procedure. Ensure components are installed in original location. To install, prime oil pump by filling inlet opening with oil and rotating pump shaft until oil emerges from outlet opening.
2. Install and tighten oil pump-to-cylinder block bolt to specification. See TORQUE SPECIFICATIONS. To complete installation, reverse removal procedure.