

DESCRIPTION AND OPERATION (Continued)

Engine Identification

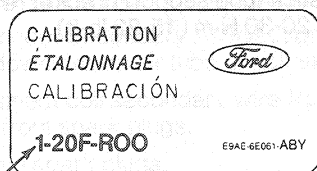
For quick engine identification, refer to the Safety Certification Decal. The decal is mounted on the LH front door lock face panel. Find the engine code (letter or number) on the decal, then refer to the engine identification chart to determine the engine type and size. An engine identification label is also attached to the engine. The symbol code on the identification tag identifies each engine for determining parts usage; for instance, engine cubic inch displacement and model year.

Code	Engines	Cyl.	Fuel Metering
U	3.0L (186 CID)	6	MFI
3	3.8L (231 CID)	6	MFI

Emission Calibration Label

NOTE: It is imperative that the engine codes and the calibration number be used when ordering parts or making inquiries about the engine.

The emission calibration number label is located on the LH side door or door post pillar. It identifies the engine calibration number, the engine code number and revision level. These numbers are used to determine if parts are unique to specific engines.



CALIBRATION
REVISION NUMBER

A11644-B

Induction System

The fuel / air mixture needed for burning in the cylinders is provided by Sequential Multiport Fuel Injection (SFI).

Fuel is metered into the air intake stream in accordance with engine demand by six solenoid injection valves mounted in the cylinder heads.

Fuel is supplied from the vehicle's fuel tank (9002) by a high-pressure electric fuel pump mounted in the fuel tank. The fuel is filtered and sent to the injector fuel rail assembly. A fuel pressure regulator (9C968) on this rail controls the fuel delivery pressure at a constant 269 kPa (39 psi). The six injector nozzles are mounted above the intake valves and connected in parallel with the fuel pressure regulator. Excess fuel supplied by the pump, but not needed by the engine, is returned to the vehicle fuel tank by a fuel return line.

These fuel induction systems are mounted on an aluminum intake manifold (9424) which in turn is bolted to aluminum alloy cylinder heads. The manifolds and heads are cast from aluminum to aid in removing weight from the engine. Service procedures related to these components remain similar to those for a V-8 engine. However, a spark plug thread service procedure is provided in the event damage should occur to these threads.

Crankshaft, Camshaft and Balance Shaft

The crankshaft is supported on the bottom of the cylinder block by four steel backed, over-plated copper-lead main bearings. The No. 3 bearing insert limits crankshaft end play and absorbs thrust loads applied to the crankshaft ends. To provide smooth engine operation, the piston crankpins are positioned to provide a power impulse every 120 degrees of crankshaft rotation. This spacing, along with the necessary changes to camshaft lobe and distributor timing, provides smoothness of operation and quietness comparable to a V-8 engine. Two sprockets and a timing chain connect the crankshaft with the camshaft and provide a 2:1 drive ratio.

The camshaft is installed in the block and is supported on four babbit-lined bearing inserts. Thrust loads and end play, however, are limited by a thrust plate installed at the front of the camshaft. Immediately behind the thrust plate are the balance shaft drive gear, the camshaft sprocket, and the distributor drive gear.

The purpose of the balance shaft is to reduce vibration produced by the engine. The balance shaft is gear-driven by the camshaft. The balance shaft is located in the tappet valley of the block and is supported by a babbit bearing at each end.

During operation the balance shaft rotates at engine speed in the opposite direction of crankshaft rotation, producing a force which cancels the rotating couple of the crankshaft.

Valve Train

The configuration of the valve train is identical to that used in V-8 engines. A hydraulic roller tappet, providing automatic lash adjustment, rides on a camshaft lobe and transfers its up-and-down motion to the rocker arm through a push rod. The rocker arms are pedestal-mounted and pivot on fulcrums bolted to the cylinder head. The valves are arranged alternately intake / exhaust.