

Engine

The 4.0L SOHC engine consists of the following:

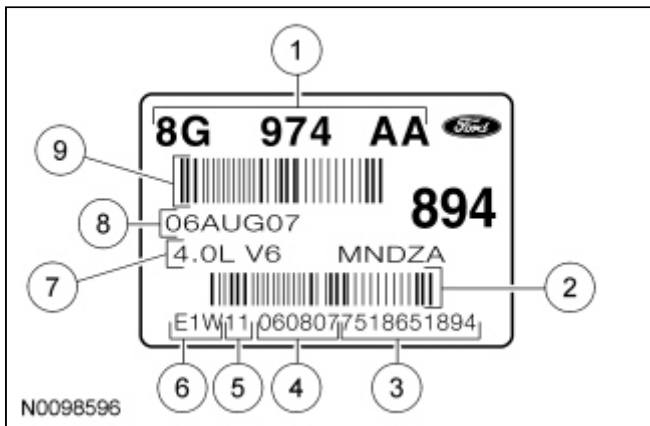
- Single overhead camshafts
- Sequential Multi-Port Fuel Injection (SFI)
- Distributorless ignition system
- Aluminum cylinder heads
- Cast iron, 60-degree V cylinder block
- Balance shaft (manual transmission only)
- Jackshaft
- Unique engine timing configuration

Engine Identification

Always refer to these labels when installation of new parts is necessary or when checking engine calibrations. The engine parts often differ within a CID family. Verification of the identification codes will make sure that the correct parts are obtained. These codes contain all the pertinent information relating to the dates, optional equipment and revisions. The Ford Master Parts Catalog contains a complete listing of the codes and their applications.

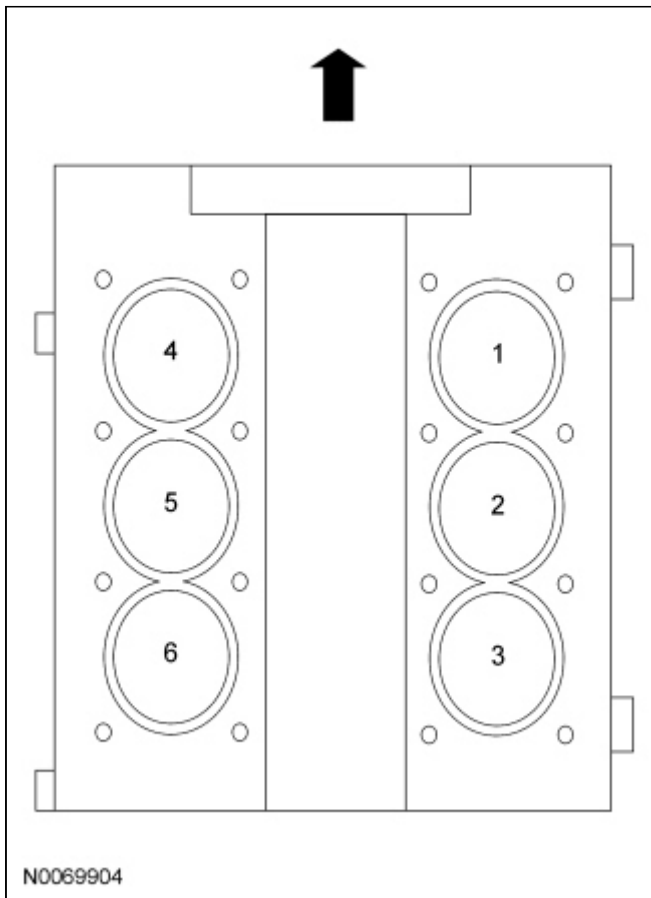
Engine Code Information Label

The engine code information label is located on the side of the LH valve cover, it contains the following:



Item	Description
1	Engine part number
2	Bar code
3	Running number
4	Engine build date (DDMMYY)
5	Plant shift assembly line
6	Cologne engine plant
7	Engine displacement
8	Engine build date (DDMMYY)

Engine Cylinder Identification



Exhaust Emission Control System

Operation and required maintenance of the exhaust emission control devices used on this engine is covered in the Powertrain Control/Emissions Diagnosis (PC/ED) manual.

Induction System

The [SFI](#) provides the fuel/air mixture needed for combustion in the cylinders. The fuel charging and controls system consists of the:

- electronic Throttle Body (TB).
- fuel injectors.
- fuel rail.
- fuel rail pressure and temperature sensor.

The fuel charging and controls system is:

- Pulse Width Modulated (PWM).
- Mass Air Flow (MAF)-controlled.

PCV System

The PCV valve:

- controls the amount of ventilating air and blow-by gases going to the intake manifold.

EGR System

The EGR system module transducer:

- monitors the EGR system module flow rate through the EGR-to-exhaust manifold tube.
- sends an EGR system module flow rate signal to the PCM.

Lubrication System

The engine lubrication system is of the force-feed type in which oil is supplied to the crankshaft, connecting rod bearings, camshaft roller followers, hydraulic lash adjusters and camshafts.

Oil Pump

The lubrication system is designed to provide optimum oil flow to critical components of the engine through its entire operating range.

Generically this design is known as a gerotor pump, which operates as follows:

- Oil pump displacement has been selected to provide adequate volume to make sure of correct oil pressure both at hot idle and maximum speed.
- The oil pump is mounted on the bottom side of the crankshaft.
- The oil pump is driven by a oil pump intermediate shaft.
- The relief valve calibration protects the system from excessive pressure during high viscosity conditions.
- The relief valve is designed to provide adequate connecting rod bearing lubrication under high-temperature and high-speed conditions.

Cooling System

The engine cooling system includes the following:

- Radiator
 - Degas bottle (aids in maintaining the correct volume of engine coolant)
 - Coolant thermostat
 - Coolant hoses
 - Single electric fan
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