

**MIL ON WITH VARIOUS MISFIRE RELATED DTC'S
P0300-P0306 AND P0316—3.0L-2V VULCAN ENGINE**

TSB 05-26-3

FORD:

2004-2006 Ranger

ISSUE

Some 2004-2006 Rangers 3.0L-2V "Vulcan" vehicles may exhibit:

- Malfunction indicator lamp (MIL) on with diagnostic trouble codes (DTCs) P0300-P0306 and P0316
- Rough running at various RPM
- Rough idle
- Misfire

ACTION

This may be due to an engine exhaust valve seat recession causing a loss of compression. Refer to the following Service Procedure to diagnose exhaust valve seat recession.

SERVICE PROCEDURE

1. Perform a power balance test to clarify if a cylinder is misfiring. Identify and keep record of any cylinder that has a concern.
2. Perform a manual compression test with the spark plugs removed to locate any cylinder that may have low compression. Refer to the appropriate Workshop Manual, Engine System, General Information, 303-00.
3. If no low compression is found per shop manual instructions, proceed with normal misfire diagnostics per the Powertrain Controls/Emissions Diagnosis (PC/ED) manual for the appropriate model year.
4. If low compression is found and it is a cylinder that had a misfire on power balance, perform a leakdown test to determine the source of leakage that may be causing the low compression. Refer to the appropriate Workshop Manual, Engine System, General Information, 303-00.

5. If low compression is found in a cylinder that did not have a misfire detected then proceed with normal base engine diagnostics per the Workshop Manual, Engine System, General Information, 303-00.
6. If the exhaust valve is identified as the source, replace both cylinder heads with the newly released service cylinder heads. Refer to the appropriate Workshop Manual, Section 301-01A.

PART NUMBER	PART NAME
6U7Z-6049-A	Cylinder Head Assy.
2F1Z-6079-BB	Upper Gasket Kit
F8DZ-6065-AA	Cylinder Head Bolts
F7DZ-9448-BB	Engine Exhaust Gasket
4F1Z-6584-AA	Valve Cover Gasket
F6DZ-9439-C	Side Gasket
F2DZ-9A425-AA	China Gasket (Front)
F3DZ-9A424-BA	China Gasket (Rear)
4L5Z-9H486-AA	Gasket-Upper Intake Manifold

WARRANTY STATUS: Eligible Under Provisions Of New Vehicle Limited Warranty Coverage And Emissions Warranty Coverage

DEALER CODING

BASIC PART NO.	CONDITION CODE
6049	42

NOTE: The information in Technical Service Bulletins is intended for use by trained, professional technicians with the knowledge, tools, and equipment to do the job properly and safely. It informs these technicians of conditions that may occur on some vehicles, or provides information that could assist in proper vehicle service. The procedures should not be performed by "do-it-yourselfers". Do not assume that a condition described affects your car or truck. Contact a Ford, Lincoln, or Mercury dealership to determine whether the Bulletin applies to your vehicle. Warranty Policy and Extended Service Plan documentation determine Warranty and/or Extended Service Plan coverage unless stated otherwise in the TSB article. The information in this Technical Service Bulletin (TSB) was current at the time of printing. Ford Motor Company reserves the right to supersede this information with updates. The most recent information is available through Ford Motor Company's on-line technical resources.