MISFIRE

Group 10

P 0300
P 0301
P 0302
P 1313 / P 0303
P 1314 / P 0304
P 1315 / P 0305
P 1316 / P 0306

Monitoring Procedure

Two algorithms running in parallel are used to detect misfire, by monitoring variation in crankshaft period measurements. One algorithm detects rates less than one in five and the other, rates greater than one in five, of misfires per number of engine cycles. Variations in crankshaft period are compared to their respective speed and load limits and if the changes exceed the limit then a misfire has occurred. Faults are detected if the number of misfires in 200 or 1000 revolutions of the crankshaft exceed the limits.

The system is disabled during transient conditions, which could give false indications of a misfire.

The strategy will report to the Diagnostic Status Manager (DSM) when a misfire fault is present and the DSM will then decide whether to store a fault code and illuminate the MIL Lamp.

Random Misfire Detected *P 0300*

Possible causes:

- Low fuel pressure
- EGR valve stuck part open
- Fuel contaminated

Misfire Detected;

Cylinder 1	*P 0301*
Cylinder 2	*P 0302*
Cylinder 3	*P 0303*
Cylinder 4	*P 0304*
Cylinder 5	*P 0305*
Cylinder 6	*P 0306*

Possible causes:

- Harness fault – injector or coil – partial open circuit or short circuit
- Spark plug problems
- Injector fault
- Ignition coil fault
- ECM fault – ignition coil drive or injector drives

Misfire Rate, Catalyst Damage – Bank 1	*P 1313*
Misfire Rate, Catalyst Damage – Bank 2	*P 1314*

Possible causes:

- Harness fault – more than one cylinder or coil open circuit or short circuit
- Very low fuel pressure
- Crank sensor / harness problem
- ECM fault – ignition coil drive or injector drives