



Assembled Camshaft - Injector Lobe Rotation Inspection; P025700, P2A1700, Or P2A1F00, Possible Lack Of Power – US17+OBD16 and Newer Emissions



> Internal Content

This procedure should be performed if the following conditions are present:

- Fault codes listed below are present on a DTC Readout:

P0257	Injection Pump Fuel Metering Control "B" Range/Performance (Cam/Rotor/Injector)
P2A17	Injection Pump Fuel Metering Control "D" Range/Performance (Cam/Rotor/Injector)
P2A1F	Injection Pump Fuel Metering Control "F" Range/Performance (Cam/Rotor/Injector)

Inspection Steps

1. Rotate the engine with the turning tool in the normal direction of rotation until the timing marks are aligned for the Injector Pump(s).

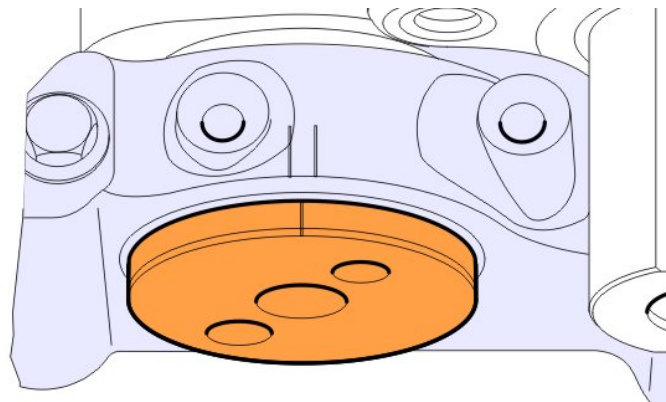
IMPORTANT
While the engine is being rotated, confirm each injector lobe is rotating with the camshaft and DOES NOT SLIP.

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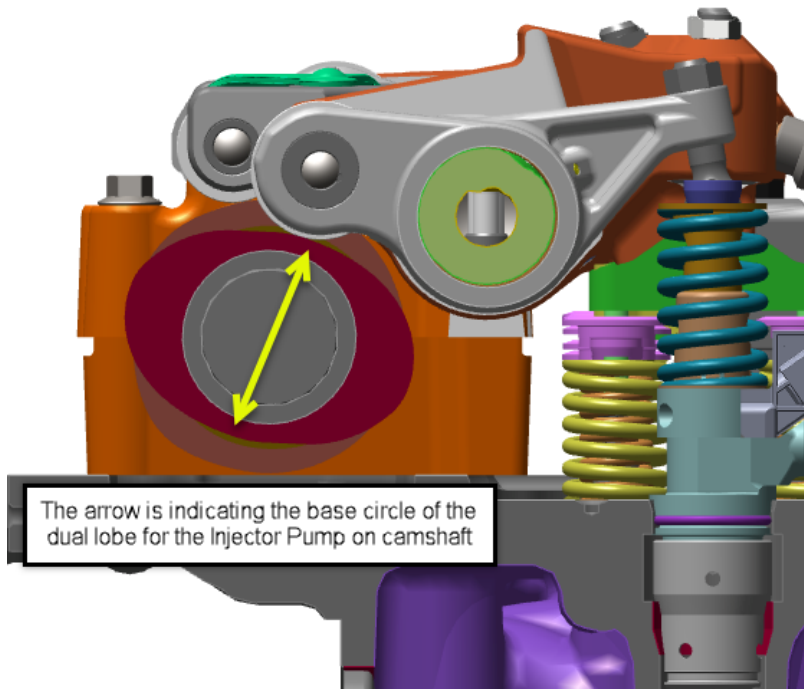
CAM POSITION	INLET	INJECTOR / PUMP	EXHAUST
TDC/V3	–	–	Cylinder 3
(P) 4	Cylinder 4	Pump 4	–
V5	–	–	Cylinder 5
(P) 2	Cylinder 2	Pump 2	–
V1	–	–	Cylinder 1
(P) 6	Cylinder 6	Pump 6	–
V4	–	–	Cylinder 4
3	Cylinder 3	–	–
V2	–	–	Cylinder 2
5	Cylinder 5	–	–
V6	–	–	Cylinder 6
1	Cylinder 1	–	–

13L

CAM POSITION	INLET	INJECTOR / PUMP	EXHAUST
5/PE6	Cylinder 5	Pump 6	Cylinder 6
3/PE2	Cylinder 3	Pump 2	Cylinder 2
6/PE4	Cylinder 6	Pump 4	Cylinder 4
2/E1	Cylinder 2	–	Cylinder 1
4/E5	Cylinder 4	–	Cylinder 5
1/E3	Cylinder 1	–	Cylinder 3



2. Once the timing marks are aligned for a specific Injector Pump, verify the injector rocker roller is on the base circle of the injector
 refer to the illustration below.



If an injector lobe rotates on the camshaft, the rotation is normally by 60 degrees. It takes approximately 15 degrees of rotation before potentially causing the faults codes listed previously or a fault for a pumping injector during the Common Rail Fuel System Test.

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