

Engine Trouble Codes P0087, P1093 or P2293 on 2005-07 Audi 2.0L Engines

The AERA Technical Committee offers the following information regarding engine trouble codes P0087, P1093 or P2293 on 2005-07 Audi 2.0L BPG, BPY & BWT engines. These trouble codes deal with the fuel system and the pressure being too low.

The cause of this problem seems to be excessive wear of intake camshaft lobe that drives the high-pressure fuel pump. The wear limits maximum pump piston lift, causing fuel rail pressure fluctuations. The wear on the camshaft lobe can also lead to wear on the base of the high-pressure fuel pump cam follower.

Remove the high-pressure fuel pump and visually inspect the base surface of the cam follower in contact with the camshaft lobe, tip of the high-pressure fuel pump plunger and the high-pressure fuel pump camshaft lobe.



If the base of the camshaft follower looks like C or D, figure above, no excessive wear is present. Cam follower and camshaft should NOT be replaced. If the cam follower base surface is excessively worn so that its surface is concave B or missing A, as shown in the figure above, inspect the intake cam shaft lobe for wear. If excessive wear of the cam follower is found, an oil change should be performed on the vehicle following the repair.





If the high-pressure fuel pump camshaft lobe, figure above, shows excessive wear, replace the intake camshaft with Part #06F109101B and the cam follower with Part #06D109309C. Increased surface hardening of the camshaft lobe for the high-pressure fuel pump was implemented to the camshaft Part #06F109101B.

Tool T10252 may not properly lock the intake cam into position. Because of cam position, valve spring tension could cause cam to rotate clockwise (front of engine view). This will cause misalignment of sprocket teeth and chain. If this happens, rotate counterclockwise (front of engine view) until chain and sprocket teeth align; slack must be at top of drive. Rotating clockwise will cause timing to be off.



Inspect the tip of the high-pressure fuel pump plunger for excessive wear, figure above. If plunger tip of fuel pump is NOT WORN, DO NOT REPLACE the fuel pump. If excessive wear is found the high-pressure pump must also be replaced.

High pressure fuel pump plunger damage is only possible if the cam follower base has a hole in it and the plunger tip has come in direct contact with the camshaft lobe. If excessive wear of the cam follower is found, an oil change should be performed on the vehicle following the repair.