

Front of Engine Rattle Noise on 2012-2015 Landrover 2.0L Engines

The AERA Technical Committee offers the following information on a rattle noise at the front of 2012-2015 Landrover 2.0L engines. The noise may also be accompanied with an error code such as P0016, P0017, P0026 or P0341.

The cause of this noise may be an inoperative intake VCT (Variable Cam Timing) actuator. This technical information offers an inspection procedure to prevent misdiagnosis. Review the information presented below to consider the intake VCT as the cause of this rattling noise.

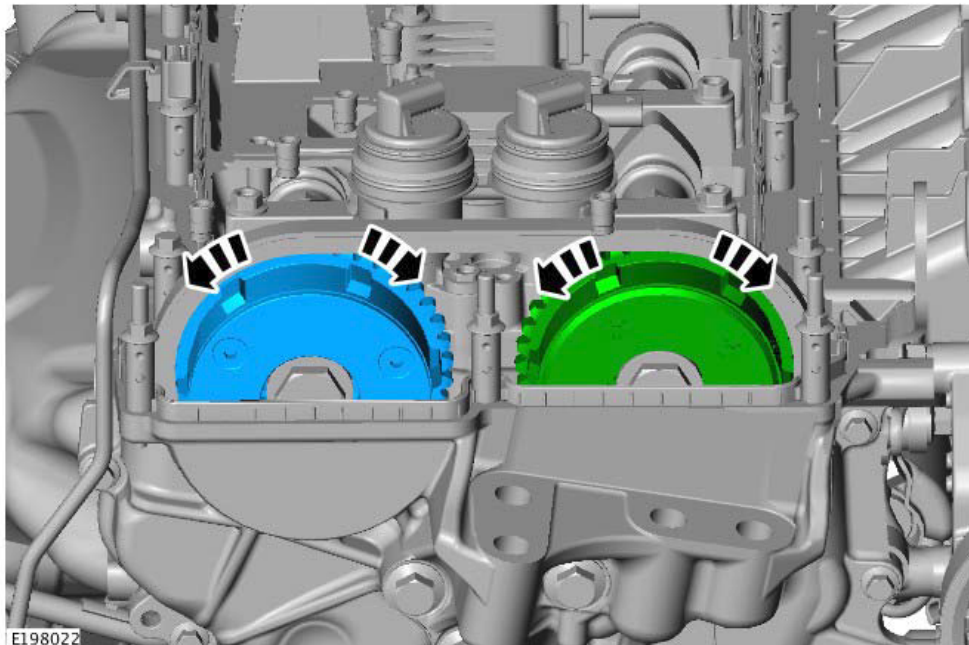


Figure 1. Blue Colored Exhaust, Green Colored Intake

The exhaust camshaft VCT actuator shown in blue in Figure 1 above has restricted movement when turned by hand. The intake camshaft VCT actuator shown in green has a less restricted movement when turned by hand.

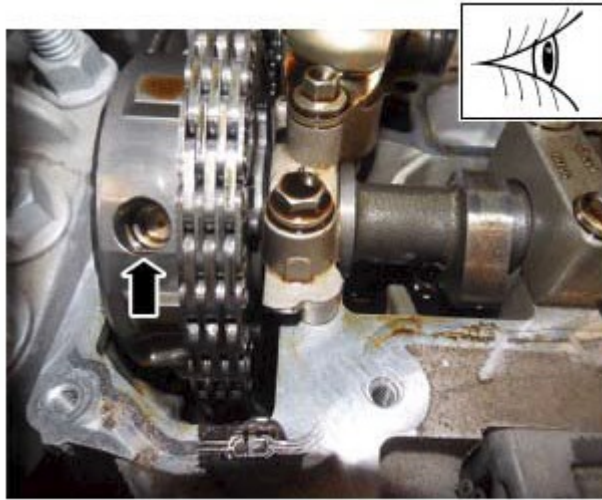


Figure 2. Plug Installed in Oil Gallery

After removing the camshaft cover, observe the plug indicated by the black arrow in the Figure 2. If the plug is missing, replace the intake VCT, if the plug is in position follow the steps listed below.

- As viewed from the front, fully rotate the camshaft counter-clockwise and then attempt to rotate the camshaft clockwise.
- If the camshaft rotates freely in both directions, the VCT actuator is not functioning properly and requires replacement with improved Part #LR050849.
- If no clockwise movement was possible without also rotating the engine, the VCT actuator is functioning properly, no replacement is recommended.