View

Models : LA - Discovery 3
LM - New Range Rover
LS - Range Rover Sport

Title : (42264) - AJV8 Cold Start Rattle - Variable Valve Timing (VVT) Variants

Engineer: Littler Mike

Date Last Updated: 18-09-2009 11:06:49

Content :

Issue:
Customer may complain of a rattling noise for approximately 4-5 seconds on cold start up of the engine, applicable to 4.2 and 4.4 Petrol AJV8 derivatives fitted with VVT.

Cause:
Excess run out on the VVT housing which is restraining the locking pin from engaging, allowing the unit to move between end stops resulting in a hammering/rattling noise.

Action:
Where the above concern is identified you are requested to replace the relevant (Bank A or B) variable valve timing unit (inlet camshaft sprocket as detailed in Microcat)

Once the repair is complete an EPQR must be raised with a photograph showing the date code stamped on the old VVT unit.

For further information/diagnostic procedure please refer to the attached file.

Procedure for replacing the inlet camshaft sprocket can be found in Global Technical Reference (GTR) under section **303-01A/B** - Engine – 4.2/4.4L Petrol AJV8.

Version: 1

Files: AJV8 Cold Start Rattle.pdf

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AJV8 4.2/4.4 Petrol Cold Start Rattle - Variable Valve Timing (VVT) Vehicles Only

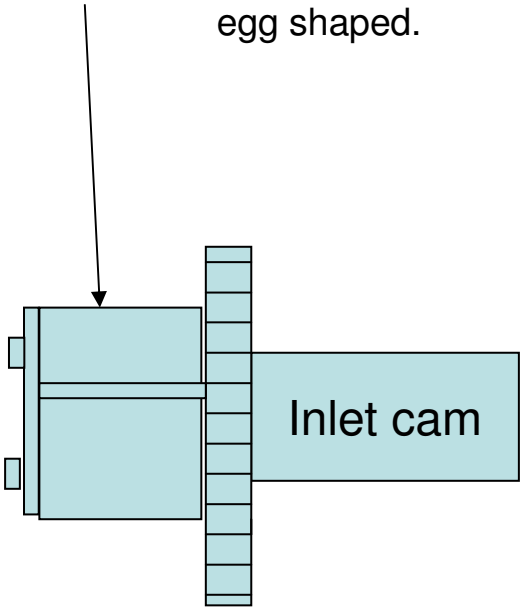
The customer may complain of a rattling noise which is prominent on cold start for 4 to 5 seconds.

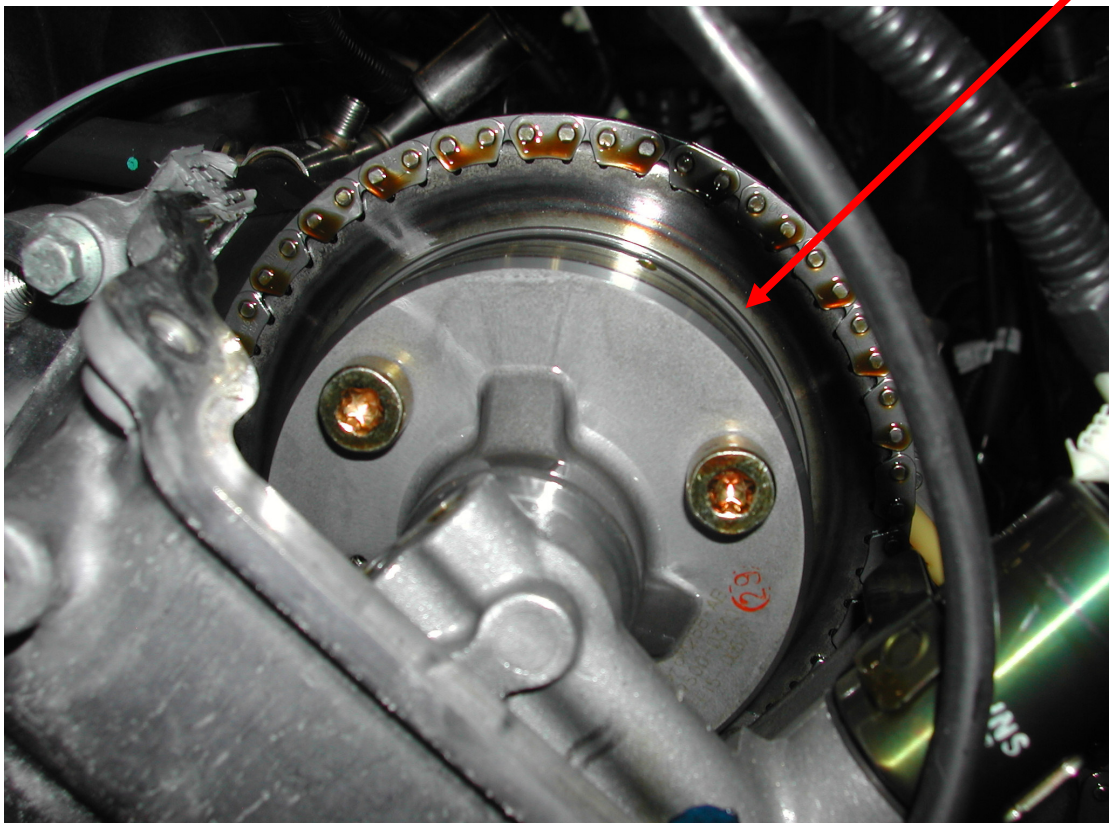
This specific noise can be confirmed by a cold start after a hot shutdown the previous day. If you hold the two VVT control valves while the engine is started you can feel the bank that has the failure.

This can be further confirmed by a dial gauge applied as shown in the picture below, this will show excess run out on the VVT housing that is restraining the locking pin from engaging, allowing the unit to move between end stops creating the hammering noise.

The only part that requires renewal is the VVT assembly this will eliminate the noise.

This is the area to check for run out normal will be around 150/200 microns/ .006 inch a faulty unit will be double this and it can be noted that all the run out is in a concentrated area as the housing is egg shaped.





Look for an even gap here of 2mm all the way round if the unit has failed it will vary distinctly.

2W93-6M288-AA

29800-0330

4E25 - 03532

4 = Apr

25th

E = 03

F = 04

G = 05

H = 06

I = 07

Once the old unit is removed, please provide an EPQR detailing the information shown in the Photograph above.