SECTION: 303-01
Intake Camshaft Variable Cam Timing Actuator - Component Failure

AFFECTED VEHICLE RANGE:

**Discovery Sport (LC)**
- Model Year: 2015 Onwards
- VIN: 503863 Onwards
- Engine: GTDi 2.0L Petrol
- Assembly Plant: Halewood

**Range Rover Evoque (LV)**
- Model Year: 2012 Onwards
- VIN: 000447 Onwards
- Engine: GTDi 2.0L Petrol
- Assembly Plant: Halewood

**LR2 (LF)**
- Model Year: 2013-2015
- VIN: 311358-439912
- Engine: GTDi 2.0L Petrol
- Assembly Plant: Halewood

MARKETS:

- NAS

CONDITION SUMMARY:

**Situation:** A rattle noise may be evident from the engine compartment and/or the Malfunction Indicator Lamp (MIL) is illuminated. The Diagnostic Trouble Code (DTC) that may be logged include P0016, P0017, P0026, or P0341.

**Cause:** This may be caused by the 'stopper' in the intake camshaft Variable Cam Timing (VCT) actuator becoming detached, leading to the VCT actuator not functioning.

**Action:** Should a customer express this concern, follow the Service Instruction below.

PARTS:

- LR085467 Intake camshaft VCT actuator (LR) Quantity: 1

TOOLS:

- Alignment Tool, Crankshaft Position Sensor
- JLR-303-1521

http://topix.landrover.jlr.ext.com/topix/content/document/view?id=644851
E121926

Lifting Bracket, Engine - Rear
JLR-303-1591

E136268

Engine support bracket
JLR-303-021

Refer to the Service Instruction/Workshop Manual for any other required special tools.

**WARRANTY:**

⚠️ **NOTE:** Repair procedures are under constant review, and therefore times are subject to change; those quoted here must be taken as guidance only. Always refer to TOPIx to obtain the latest repair time.

⚠️ **NOTE:** DDW requires the use of causal part numbers. Labor only claims must show the causal part number with a quantity of zero.

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>SRO</th>
<th>TIME (HOURS)</th>
<th>CONDITION CODE</th>
<th>CAUSAL PART</th>
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<tr>
<td>Variable Camshaft Timing actuator - Intake - Check - LR2 (L359)</td>
<td>12.13.46</td>
<td>1.1</td>
<td>01</td>
<td>LR050849</td>
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<td>Variable Valve Timing actuator - Intake - Renew - LR2 (L359)</td>
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</tbody>
</table>

⚠️ **NOTE:** Normal Warranty procedures apply.

**COMPONENT LOCATION**

1. Intake camshaft Variable Camshaft Timing (VCT) actuator location
SERVICE INSTRUCTION:
1. Remove the camshaft cover (see TOPIx Workshop Manual, section 303-01A / 303-01B: Engine).

2. Inspect the Variable Camshaft Timing (VCT) actuator.
   - If the VCT actuator is noisy but the 'stopper' is in place, proceed to step 3.
   - If the 'stopper' is not in place in the VCT actuator, proceed to step 4.

3. ▲ NOTE: clockwise movement should NOT be possible without also rotating the engine.

   Fully rotate the camshaft anti-clockwise (1) and then attempt to rotate the camshaft clockwise (2).
   - If no clockwise movement was possible without also rotating the engine, the VCT actuator is functioning correctly.
     - Reverse the removal procedure.
   - If the camshaft rotates freely in both directions, the VCT actuator is NOT functioning correctly; proceed to step 4.
4. Renew the intake camshaft VCT actuator (see TOPiX Workshop Manual, section 303-01A / 303-01B: Engine).