

Reference	SSM76279
Models	Defender / L663 New Range Rover / L460 New Range Rover Sport / L461
Title	Cylinder Head Carbon Build-Up / Valve-Coking
Category	Engine
Last modified	21-Feb-2025 00:00:00
Symptom	499000 Basic Engine
Content	<p>Model / Model Year / Derivative</p> <p>Range Rover / 22MY Onwards / V8 4.4L NC10/NC11 petrol Range Rover Sport / 23MY Onwards / V8 4.4L NC10/NC11 petrol Defender / 25MY Onwards / V8 4.4L NC11 petrol</p> <p>Situation:</p> <p>JLR Engineering investigations have identified reports of 1 or more of the below symptoms being present:</p> <ul style="list-style-type: none"> • The Malfunction Indicator Lamp (MIL) illuminated on the instrument panel • 1 or more of the below Diagnostic Trouble Codes (DTCs) stored in the Powertrain Control Module (PCM): - P0171-00, P0174-00, P0175-00, P0172-00 • Visible evidence of carbon build-up / valve-coking of the cylinder head intake ports / combustion chamber roof / piston crowns <p>These symptoms can become present due to carbon build-up / valve-coking being present within the cylinder head(s).</p> <p>Cause:</p> <p>The current software strategy for fuel trim learning is not able to efficiently compensate for the build-up of carbon deposits present within the engine. The build-up of carbon deposits within the engine <i>can</i> be common for a high performance engine with direct fuel injection, this will depend on the usage of the vehicle.</p> <p>Action:</p> <p>Refer to the service request below.</p> <p>Service Request:</p> <p>The relevant Engineering teams are working toward both medium and long term solutions for this concern. Until these solutions can be provided, follow the instructions below for further guidance from Technical Assistance (TA):</p> <p>Raise a TA which must include the below information:</p> <ul style="list-style-type: none"> - Reference to PTS_160 and PTS_100 - Reference to P379074 - Reference to this SSM (SSM 76279) - Reference to Technical Article 100323

The relevant Engineering team will provide further guidance.

(Ref 000379074 / 2133)

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