

Reference	SSM72919
Models	LR4 / L319 Range Rover / L405 Range Rover Sport / L320 Range Rover Sport / L494
Title	3.0 TDV6 Service Engine Failure - Poor Repair
Category	Engine
Last modified	08-Aug-2016 00:00:00
Symptom	499000 Basic Engine
Attachments	TDV6 Engine Locator Key Sheared Special Tool.pdf (TDV6 Engine Locator Key Sheared Special Tool.pdf)

Content**Issue:**

Brand new service engines (3.0 TDV6) with a loud knocking noise following first start up after fitment. Analysis of returned engines has shown the left hand (LH) camshaft/chain sprocket alignment marks were incorrect as a result of the Technician not following the TOPIx procedure for refitting the Fuel Injection Pump which is driven off the rear of the left hand (LH) side cylinder head exhaust camshaft.

Cause:

Root cause of this failure is incorrect assembly of the Fuel Injection Pump (FIP) drive. Procedure on TOPIx which details a service tool to hold the Fuel Injection Pump sprocket whilst the final torque is applied (this can be upwards of 200Nm) is not being adhered to. Failure to use this tool will result in the shearing of the camshaft pulley back plate/shaft locator (refer to attached file) resulting in loss of valve timing & piston/valve contact.

Action:

It is imperative that upon removal/refit of the Fuel Injection Pump that the mandatory service tool ([JLR-303-1523](#), refer to attached file) as detailed in TOPIx is used to hold the Fuel Injection Pump sprocket whilst the final torque is applied to the bolt, failure to follow this instruction can cause severe damage to the new engine.

Note: It is essential that TOPIx processes and use of special tools outlined in the Global Warranty Compliance and Procedure Manual – Section A1.7 and Section E1 are followed in order to avoid unnecessary customer dissatisfaction and warranty penalties.