

TECHNICAL BULLETIN
LTB00710NAS1
05 JAN 2015



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NOTE: The information in Technical Bulletins is intended for use by trained, professional Technicians with the knowledge, tools, and equipment required to do the job properly and safely. It informs these Technicians of conditions that may occur on some vehicles, or provides information that could assist in proper vehicle service. The procedures should not be performed by 'do-it-yourselfers'. If you are not a Retailer, do not assume that a condition described affects your vehicle. Contact an authorized Land Rover service facility to determine whether this bulletin applies to a specific vehicle.

SECTION: 303-04

Metallic 'Clicking' / 'Rasping' Noise From The Engine

AFFECTED VEHICLE RANGE:

LR4 (LA)

Model Year: 2014 Onwards
VIN: EA679426 Onwards

Engine: V6 S/C 3.0L Petrol

Range Rover Sport (LW)

Model Year: 2014 Onwards
VIN: EA000002 Onwards

Engine: V6 S/C 3.0L Petrol

Range Rover (LG)

Model Year: 2014 Onwards
VIN: EA110440 Onwards

Engine: V6 S/C 3.0L Petrol

MARKETS:

NAS

CONDITION SUMMARY:

Situation: A metallic 'clicking' / 'rasping' noise may be evident from the engine. The noise may be more noticeable when the engine is at idle speed and when the engine is cold.

Cause: This may be caused by a noisy high pressure fuel pump outlet valve.

Action: Should a customer express this concern, follow the Service Instruction outlined below to determine if the noise is emitted from one of the high pressure fuel pumps located in the engine bay.

PARTS:

LR035527 High pressure fuel pump Quantity: 1

TOOLS:



NOTE: This is an 'Active Bulletin' that will display a functional programming shortcut if accessed within a diagnostic session using SDD.

SDD with latest DVD and Calibration File; first available on DVD139.06 v.189
Jaguar Land Rover-approved Midtronics battery power supply

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.

DESCRIPTION	SRO	TIME (HOURS)	CONDITION CODE	CAUSAL PART
Fuel pump test - SDD	19.90.18	0.3	42	LR035527
High pressure fuel pump - Rear - Renew - LR4 (L319)	19.45.31	2.0	42	LR035527
High pressure fuel pump - Front - Renew - LR4 (L319)	19.45.30	1.9	42	LR035527
High pressure fuel pump - Rear - Renew - Range Rover Sport (L494); Range Rover (L405)	19.45.31	2.2	42	LR035527
High pressure fuel pump - Front - Renew - Range Rover Sport (L494); Range Rover (L405)	19.45.30	2.5	42	LR035527
Fuel pump test - SDD	19.90.18	0.3	42	LR035527



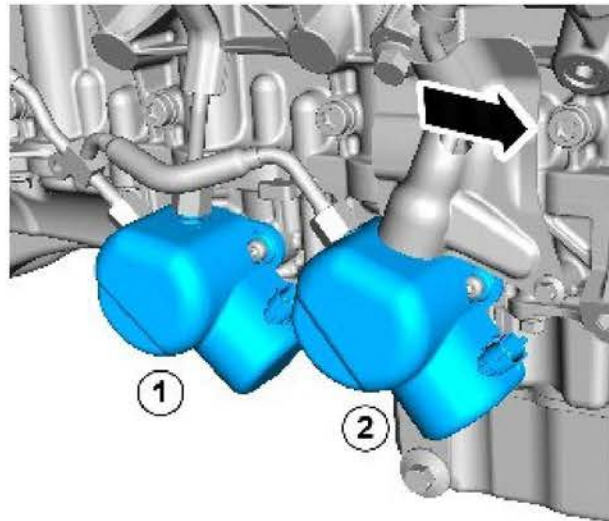
NOTE: Normal Warranty procedures apply.

SERVICE INSTRUCTION:

1. **NOTE: Direction arrow indicates the front of the engine.**

The illustration shows the high pressure fuel pumps and their possible alternate designation.

- Pump 1: Left or rear
- Pump 2: Right or front



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The following diagnostic routine will aid in the diagnosis of which of the high pressure fuel pumps is noisy.

2. **NOTE: Carry out the diagnostic routine on a cold engine (less than 35°C) at idle speed with the bonnet open.**

Carry out the following diagnostic routine, listening for the suspected fuel pump noise. As the fuel pumps are deactivated in turn it should be possible to diagnose which pump is noisy as the metallic 'clicking' / 'rasping' noise will stop when that fuel pump is no longer running. Only replace a noisy pump; if no difference can be determined from either pump during the diagnostic routine, further diagnostics would be required into the source of the noise. In the unlikely event that both pumps are suspected to be noisy, contact Technical HelpLine for further advice.



CAUTION: A Jaguar Land Rover-approved Midtronics battery power supply must be connected to the vehicle battery during SDD diagnosis / module programming.



CAUTION: Ensure all ignition 'ON' / ignition 'OFF' requests are carried out; failure to perform these

steps may cause damage to control modules in the vehicle.



NOTE: SDD must be loaded with DVD139.06 v.189 or later.

3. Connect the Jaguar Land Rover-approved Midtronics battery power supply to the vehicle battery.
4. Connect SDD to the vehicle and begin a new diagnostic session, by reading the vehicle identification number (VIN) for the current vehicle and initiating the data collect sequence.
5. Follow the SDD prompts.



NOTE: The primary function of the following SDD routine is to assist in diagnosing pump performance. In this bulletin the test is being utilized for an audible fault. The test will conclude with a pass or fail. If the test concludes with a pass, this does not indicate the pump is not causing an audible fault.

6. Turn ignition 'ON' (engine not running).
7. Connect the Symptom Driven Diagnostics (SDD) system to the vehicle and begin a new session.
8. Follow the on-screen prompts, allowing SDD to read the VIN and identify the vehicle and initiating the data collect sequence.
9. Select 'Diagnosis' from the Session Type screen.
10. Select the 'Selected Symptoms' tab, and then select:
 - Powertrain > Engine system > Engine performance
11. Select 'continue'.
12. Select the 'Recommendations' tab, and then select '**Run**' to perform the 'Powertrain - High pressure fuel pump test' option.
 - When the SDD application is running the high pressure fuel pumps will be sequenced as follows.
 1. High pressure fuel pump 2 - disabled (SDD will display the following: High pressure fuel pump 1 - PCM - Switch off).
 2. Both high pressure fuel pumps - enabled.
 3. High pressure fuel pump 1 - disabled (SDD will display the following: High pressure fuel pump 2 - PCM - Switch off).
 4. Both high pressure fuel pumps - enabled.
 - If error message of '36' or '37' appears, run the following procedure and repeat the high pressure fuel pump test.
13. Select the 'Recommendations' tab, and then select '**Run**' to perform the 'Powertrain - High pressure fuel pump test' option.
14. Select the 'Service Functions' Session Type screen.
 - select '**Run**' to perform the 'Powertrain - Powertrain control module unlock application'.
15. Follow all on-screen instructions to complete this task, ensuring all DTCs are cleared.
16. Exit the current session.
17. Disconnect the SDD and the battery power supply from the vehicle.

- 18.** Install a new high pressure fuel pump as per diagnostics (see TOPIx workshop Manual, section 303-04).
- 19.** Retest vehicle to confirm the noise has been rectified.