 <b>TSB-Local</b>	<b>Model</b>	Sorento [BL](2006MY), Sorento [BL](2007MY)
	<b>Group</b>	Fuel System(14)
	<b>TSB No.</b>	JC039 / AS160;C21VA
<b>Subject</b>  <b>Injector Seal Replacement</b>	<b>Published</b>	4/15/2010
	<b>TSB Type</b>	Service Action
	<b>Area &amp; Distributor</b>	U.K (C21VA)

## 1. Description

### Symptom

Some Sorento (BL) vehicles with 2.5L A - diesel engine may experience damage to the turbocharger.

### Cause

Combustion gases leaking from the cylinder due to insufficient sealing of the copper injector seals is mixing with engine oil in the engine head cover. The result is a possible deterioration in the quality of engine oil, the oil strainer may become blocked and subsequently the oil supply to the turbo is restricted causing the turbo bearings to fail. (this is the worst case scenario)

### Initial action:

- Carry out replacement of the injector seals and injector cleaning as detailed in the Service Procedure below. If any blowby from injectors has been detected, proceed as follows.
- Carry out an oil pressure test at idle and at 3 - 4,000rpm with a hot engine, approximate readings are as follows :-

**Idle ~ 1.3 bar**

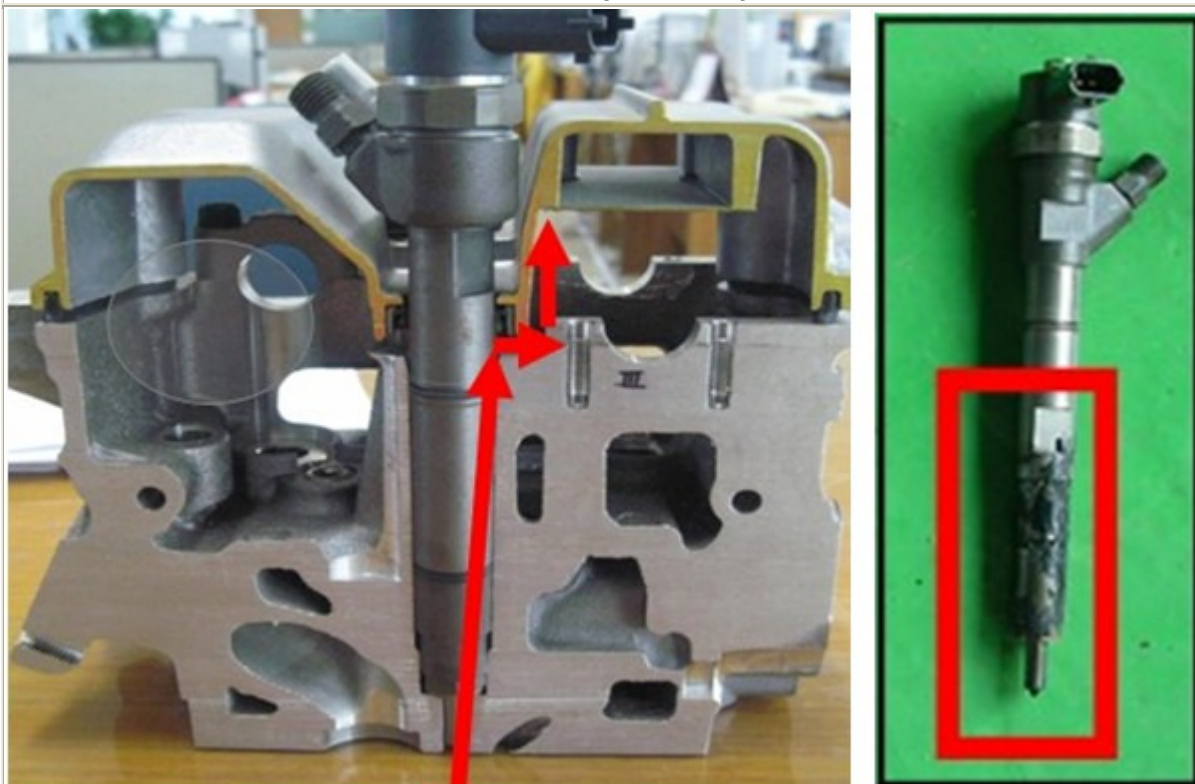
**3 - 4,000rpm ~ 3.5 to 4.0 bar**

- If the oil pressure is within range then replace the engine oil together with the filter.

**Note: If this Campaign is being completed during routine servicing the oil and filter should be invoiced directly to the customer. This may be subject to audit.**

- If the oil pressure is not within range, remove the sump and check the oil strainer for signs of blockage or contamination, clean the strainer, refit the sump and replace the engine oil and filter.

### Gas leaks from injector & cylinders



#### Countermeasure

For all affected vehicles, remove each injector and thoroughly clean the injector bodies and injector mounting holes in the cylinder head, replace the injector seals following the Service Procedure below.

### 2. Applicable Vehicles

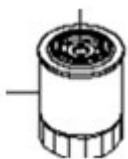
Model: Sorento (BL)

Applicable vehicle production date range: From May, 2006 ~ April, 2007. See the attached VIN list for details of all the affected vehicles.

**Note, vehicles affected by this Campaign may also require an ECM upgrade as detailed in TSB JC043 / AS190 (ECM Upgrade - Turbocharger Overspeed Logic Improvement)**

### 3. Parts Information

#### ■ PARTS REQUIRED

Part Name	Part No.	Figure	Q'ty per 1 vehicle
Oil Filter - Engine	263104A010		1 EA

seal - Injector	338134A000		4 EA
Oil - Engine	NPNENGOILD		9 EA
Injector Pipe	314204A440		1 EA
Injector Pipe	314304A440		1 EA
Injector Pipe	314404A440		1 EA
Injector Pipe	314504A440		1 EA

#### 4. Operation Code And Time

OP CODE	OPERATION	OP TIME
090064R0	Cleaning Injectors	0.8 M/H
090064R1	Cleaning Injectors & Engine Oil Filter Replacement	1.1 M/H

#### Campaign Claim Information

The initial operation for replacing the injector seals / cleaning injectors **MUST** be claimed as a Campaign using the procedure below. Warranty claims must be processed immediately following the repair. The **ONLY** parts included within this Campaign are the 4 injector seals and the oil filter if required. A supplementary 'Normal' Warranty claim for any additional parts / labour (injector pipes, oil pressure check etc) will be required (see details below).

1. Enter the VIN or Registration Number, click on 'Enquiry'
2. Enter the campaign number 090064 and 'click on' Enquiry.
3. Select the operation code from the list above (failure to select the correct Campaign LTS code will result in parts not being credited)
4. Complete the blank fields on the preformed claim
5. Click on 'Submit Claim'

#### Normal Claim Information

Follow the process for submitting a claim on a 'W' claim type using the following information as applicable.

OP CODE	OPERATION	OP TIME	CAUSAL PART	NATURE CODE	CAUSE CODE
33813HTT	Oil Pressure Check	0.3 hrs	338134A000	N93	C38
26250R0D	Oil Screen r&r (cleaning oil strainer pick up)	1.9 hrs			
26250RA0	Vehicles with A/C	0.2 hrs			

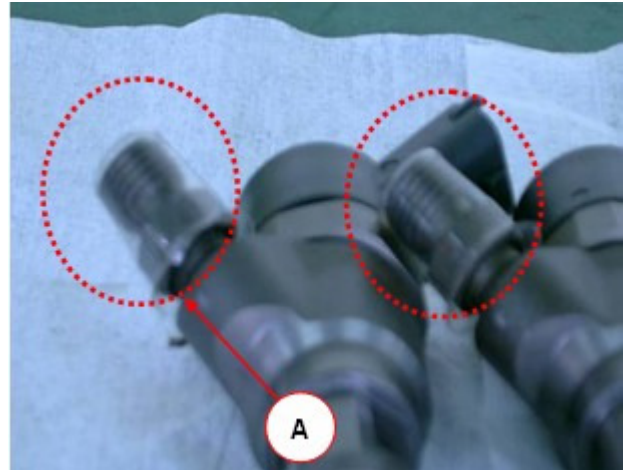
**Replaced Parts** - As required from table above (excluding Campaign parts)

## 5. Service Procedure

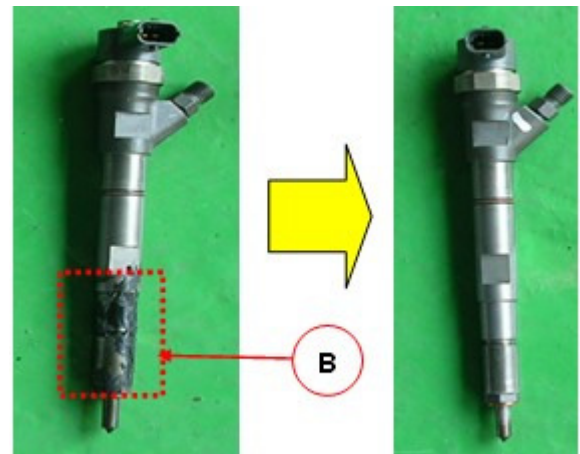
1. Remove all the injectors from the engine.

NOTE: Ensure that you mark which injector is removed from which cylinder as these should be returned as they were removed, e.g injector 1 from cylinder 1 etc.

2. Plug caps (A) (these can be found in the CRDI Test Kit) onto the inlets of all the removed injectors as shown on the photo to prevent foreign materials from entering into the injectors.



3. With alcohol cleanser clean off carbon deposits from the injector body (B).



4. Remove the injector seal from the injector nozzle.

5. Spray cleaner on the injector nozzle.

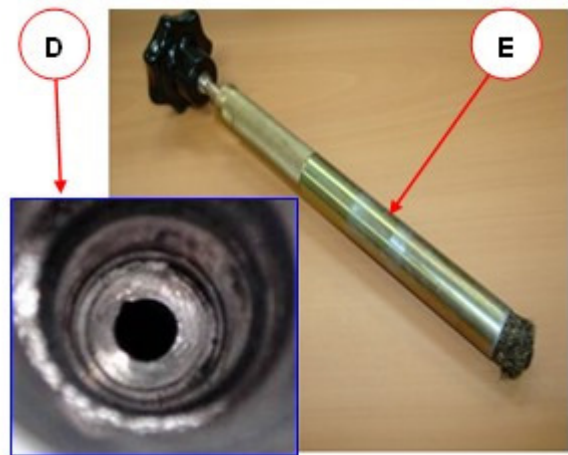
6. With a clean fabric cloth remove carbon deposits from the injector nozzle.



7. Using the SST (E) remove carbon deposits from injector mounting holes (D) in the engine head assembly.

\* SST  
: 0935127300 (injector hole cleaning brush)

**Note, this tool will be auto issued to ALL dealers via your normal parts delivery shortly.**



8. Insert a new injector seal (F) to each injector nozzle and reinstall all the removed injectors.

**Caution**  
When tightening injector clamp bolts, make sure to use the specified torque.

**Tightening torque**  
2.9~3.4 kgf-m (28.4~33.3 N-m, 21.0~24.6 lbf-ft)

