



# Technical Service Bulletin

GROUP  
**ENGINE MECHANICAL**

NO.  
**14-20-002**

SUBJECT  
**ELANTRA SEDAN (UD) ENGINE KNOCKING NOISE**

DATE  
**MARCH 3, 2014**

MODEL  
**ELANTRA (UD)**

There have been cases of some 2011-2013MY Elantra Sedan (UD) vehicles equipped with a 1.8L engine which exhibit a knocking noise. Hyundai Auto Canada Corp. has reported this condition and has conducted extensive quality research with Hyundai Motor Manufacturing Alabama (HMMA) to determine the root cause of this condition. It was determined that this issue is caused by defects in the piston skirt coating as well as improper finishing of the connecting rods. The engine knocking condition is more prone to occur when the following conditions are present:

1. Cold temperatures
2. Poor fuel quality
3. Fuel delivery issues

There have been a series of corrective measures implemented in order to resolve the condition as described below:

<u>Improvement</u>	<u>Implementation Date</u>
1. Added piston surface alkali washing	September 2011
2. Improved quality control of connecting rod manufacturing process	June 2013
3. Improved piston surface finish	September 2013

These improvements have been implemented in the manufacturing process and vehicles produced effective September 2013 have received all the quality improvements.

In cases where dealers receive a customer complaint regarding an engine knocking noise, dealers are required to validate the concern and confirm scheduled maintenance (oil changes) have been performed. The symptoms of this particular engine knocking condition is the engine exhibits a loud knock during start up but the noise reduces as the engine reaches operating temperature. For vehicles exhibiting these conditions we are advising dealers not to conduct any further diagnosis but to order a replacement engine short block assembly.

Please note that engine replacement without further diagnosis is only authorized for vehicles exhibiting the particular engine knocking condition outlined above.

In the short term engines should not fail due to the engine knocking noise. There is no need to disassemble the engine for inspection. Both the Hyundai Warranty Department and HYTAC will not require tear down of an Elantra (UD) engine for this knocking issue. Before beginning the repair

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ensure your dealership has a replacement engine on hand. Customers can continue to drive their vehicle until parts are available. If a vehicle exhibits excessive knocking noise contact the Hyundai Warranty department for possible vehicle rental car assistance.

### PARTS SUPPLY

Vehicles built from Job 1 to March 1, 2012 require a Korean manufactured engine (Part # : R2D032-2EU00A). We have had meetings with Hyundai Mobis requesting support to increase current supply. We will continue to follow up for additional supply. Please note that vehicles built from Job 1 to March 28, 2011 will also require a change to the A/C compressor (refer to TSB #12-20-006).

Vehicles built from March 1, 2012 to September 2013 require HMMA production engines (Part # : R21102-2EK00). We have contacted HMMA and they will perform special weekend production runs to improve supply. Similar to Hyundai Mobis we will continue to follow up with HMMA until the supply situation is resolved.

### AFFECTED VEHICLES

Some 2011-2013MY Elantra Sedan vehicles produced from Job 1 to September 2013.

**NOTE: Normal warranty policies and procedures apply.**