

Engine makes noise, ticking/cracking

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Version 2
Design group 03.20 Crankshaft
Date 02-22-2010
Validity Model series 211, 219 with OM 642
Model series 164, 251 with OM 642
Model series 203, 204, 209, 221, 461, 463 with OM 642
Work steps updated.

Reason for change

Reason for block

Complaint:

The engine makes ticking/cracking noises at idle speed and at speeds up to approx. 1500 rpm

Notes:

- The noise occurs from mileages of approx. 20,000 km (aprx. 12,000 miles) or after an oil change.
- Noise is clearly noticeable in area of 1st crankshaft main bearing.
- Noise can no longer be heard when the poly-V belt is removed.
- It is essential that the problem noise be compared with the example noise listed.
- Noise is not regular. Pulsed cracking noises occur at irregular intervals; compare reference noise in attachment.
- 20 pulses (ticks) that could potentially be the cause of complaints can be heard in the attached reference noise.

Attachments

File	Designation
Tickern OM642_neu.mp3	Cracking noise, isolated ticking/cracking

Cause:

Run-in effect of 1st crankshaft main bearing.

Scope of testing:

Remove/install poly-V belt.

- Compare reference noise. (When doing so, run engine without poly-V belt)

Note:

If the ticking noise is still present after the poly-V belt has been removed, the bearing shells of the 1st crankshaft main bearing are not defective. Proceed further to determine the cause.

If the ticking noise is no longer present after the poly-V belt has been removed, the bearing shells of the 1st crankshaft main bearing are defective. The bearing shells of the 1st crankshaft main bearing must be replaced.

Remedy:

Replacement of bearing shells of 1st crankshaft main bearing

Note: