# **Technical Bulletin**



### **Condition**

Camshaft Chain Tensioner(s) or Camshaft Adjuster(s), Rattle or Knocking Noise

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Model(s)	Year	Eng. Code	Trans. Code	VIN Range From	VIN Range To
(-)		3		3.	3.
All	1999 - 2005	1.8T, 2.8L, 4.2L	All	All	All
All	1333 - 2003	1.01, 2.02, 4.22	All	All	All

### **Technical Background**

The camshaft adjustment is hydraulically actuated and controlled by the engine oil pressure.

If the vehicle has been sitting, with the engine turned off for a period of time, the oil accumulation inside the camshaft adjusters partially bleeds off and the oil flows back into the oil sump.

To ensure an efficient camshaft adjustment after an engine cold start, the oil pressure inside the camshaft adjusters must be built up as quickly as possible.

During this time a slight rattle or knocking noise may be audible.

This noise is normal at engine start and will last until the oil pressure is fully reinstated.

#### **Production Solution**

No production change required.

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### **Service**

DO NOT replace the Camshaft Tensioner(s) or Camshaft Adjuster(s) for the noise concern as described above.



Replacing the Camshaft Tensioner(s) or Camshaft Adjuster(s) will not eliminate this noise.

### Warranty

Information only.

## **Required Parts and Tools**

No Special Tools required.

No Special Parts required. Always see ETKA for the latest part(s) information.