



KIA MOTORS

GROUP
Engine

MODEL
Sedona (VQ), Amanti (GH)
Sorento (BL)

NUMBER
028 (Revised)

DATE
April 2008

TECHNICAL SERVICE BULLETIN

SUBJECT:

3.8/3.3L ENGINE NOISES

This revised bulletin replaces information previously issued on June 1, 2007, Engine 028. It readdresses several noises on 3.8 or 3.3 litre engines used in 2006 and later Sedona (VQ) and 2007 and later Amanti (GH) and Sorento (BL). Three separate noises are covered.

Noise 1) 3.8/3.3L engines may exhibit noise for several seconds during initial start-up after sitting several hours, which typically sound like loose timing chains or excessive bearing clearance.

Noise 2) 3.8/3.3L engines may exhibit noise during or after full warm-up, which can sound like excessive valve lash (valve tap) on one or more cylinders – or – loose timing chains.

Noise 3) In fewer cases, the catalyst heat shields may produce buzzing sounds that are most noticeable after full warm-up, and under slight engine load.

This TSB will distinguish when and how to address these concerns. Please note that there have been changes to acceptable repair limits. Additionally there have been changes to the repair procedures, which are provided in the service information on KGIS.

Noise	Noise Type	Condition	Recommendation
1	Timing chain / bearing clearance noise at cold start-up, which diminishes after the first 3 to 4 seconds of running time	Cold engine after sitting several hours	NO REPAIR OR ACTION NECESSARY OR RECOMMENDED
2	Valve lash noise (valve tap) on one or several cylinders — OR — Timing chain noise lasting longer than the initial 3 to 4 seconds start-up time	Cold or Warm Engine	Replace both timing chain tensioners with part number 24410 3C300 (unless previously done)
3	Rattling or buzzing noise at various off-idle engine speeds Applies only to Sedona (VQ) and Amanti (GH) <i>Does NOT apply to Sorento (BL)</i>	Warm Engine Only (May be more noticeable with slight engine load)	Adjust the catalyst heat shield clearance

File Under: Engine

Circulate To:
 General Manager
 Service Manager
 Parts Manager
 Service Advisor(s)
 Technician(s)
 Body Shop Manager
 Fleet Repair

Noise 1 – Engine Noise Only at Initial Start-up

This can be caused by oil draining back into the crankcase after sitting several hours or more so after sitting overnight. Since the primary tension application of the chain tensioners is oil pressure, the tensioners may initially have slack until significant oil reaches them and pressure begins to build.

If the noise diminishes at the same time oil pressure builds, there is no fault with the current design timing chain tensioners. **No action or repair is necessary or recommended.**

*NOTICE

If necessary, this can be easily confirmed by installing an oil pressure gauge and monitoring the noise before and after oil pressure build-up.

Noise 2 – Valve Lash (Valve Tap) Type Noise – or – Excessive Timing Chain Noise

For valve tap type noise on one or more cylinders – or – for timing chain noise lasting longer than the initial 3 to 4 second start-up time, replace both LH and RH timing chain tensioners with part number 24410 3C300, unless previously done.

*NOTICE

Engine removal is no longer recommended. Please see updated service information (on KGIS) and labor op time on timing chain tensioner replacement.



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3.8/3.3L ENGINE NOISES

Noise 3 – Catalyst Heat Shield Buzzing / Rattling Under Slight Load



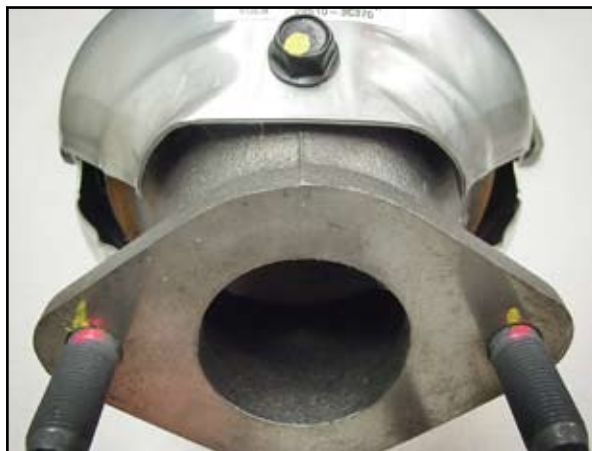
Noise can occur with less than 3mm clearance between catalyst and heat shield.



Good clearance of more than 3mm.

*NOTICE

Check and if necessary adjust ALL heat shields on both front and rear catalysts. A good inspection measurement can be taken with a 3mm hex wrench.



Example of correct heat shield clearance.

SUBJECT:**3.8/3.3L ENGINE NOISES****AFFECTED PRODUCTION RANGE:**

Timing Chain Tensioner Replacement	Catalyst Heat Shield Adjustment
2006 and later Sedona (VQ) 2007 and later Amanti (GH) 2007 and later Sorento (BL)	2006 / 2007 Sedona (VQ) 2007 Amanti (GH) Vehicles produced up to October 9, 2006

REQUIRED PART:

Timing Chain Tensioner: 24410 3C300

WARRANTY CLAIM INFORMATION:

Claim Type	Causal P/N	Qty.	N Code	C Code	Repair Description	Labor Op Code	Time	Related Parts	Qty.
W	24410 3C250	0	N29	C10	Sedona (VQ) Timing Chain Tensioners, R&R	24322R00	6.4	24410 3C300	2
W	24410 3C250	0	N29	C10	Amanti (GH) Timing Chain Tensioners, R&R	24322R0B	6.6	24410 3C300	2
W	24410 3C250	0	N29	C10	Sorento (BL) Timing Chain Tensioners, R&R	24322R00	7.9	24410 3C300	2
W	Amanti (GH) 28950 3C210	0	N29	C61	Catalyst Heat Shields, Adjust- ment	28525 F00	0.2	NA	0
	Sedona (VQ) 28950 3C620				Sedona (VQ) and Amanti (GH) Only				

N29: Abnormal Noise

C10: Weakened

C61: Incorrect Part