

Engine noises after engine start

Topic number	LI05.10-P-049909
Version	2
Design group	05.10 Timing chain drive, toothed belt drive
Date	06-09-2015
Validity	ENGINE 642
Reason for change	Test method adjusted, model designation validities expanded
Reason for block	

Complaint:

Rattling or thumping noise from the area of the chain drive approx. 2-5 seconds after engine start.

Note:

It is essential to compare the noise of the complaint with the reference sound sample, see attachment "Sound".

Attachments	
File	Description
Sound.mp3	Rattling noise immediately after engine start.

Cause:

Timing chain may have stretched.

Note:

Vehicles with less than 50,000 kilometers (31,068 miles) require an individual assessment.

In these cases please open a PTSS case.

Remedy:

Check timing chain and replace if necessary.

Note:

The elongation of the timing chain is checked using the measuring chain tensioner W 642 589 03 63 00, see WIS references.

Measurement of the elongation of the timing chain must be documented.

The documentation must always be sent in together with the removed timing chain.

Symptoms
Power generation / Engine noise / Clattering
Power generation / Engine noise / Pounding

Parts						
Part number	ES1	ES2	Designation	Quantity	Note	EPC
A 000 993 63 76			Double roller chain	1	Modified IC+ chain	X
A 000 993 71 76			Single roller chain	1		X

Work units				
Op. no.	Operation text	Time	Damage code	Note
94-1013	ENGINE NOISE LOCATE		05111 49	
01-5011	VALVE COVERS		05111 49	
05-7601	TIMING CHAIN		05111 49	

WIS-References			
Document number	Title	Note	Allocation
AR05.10-P-7600CO	Check timing chain.	Model 204	Cause
AR05.10-P-7600GY	Check timing chain	Model 461, 463	Cause
AR05.10-P-7600GZB	Check timing chain	Model 164, 251	Cause
AR05.10-P-7600PI	Check timing chain	Model 203, 209	Cause
AR05.10-P-7600SXI	Check timing chain	Model 207, 212, 218, 221, 222	Cause
AR05.10-P-7600TI	Check timing chain	Model 211	Cause
AR05.10-P-7600TQ	Check timing chain	Model 219.322	Cause
AR05.10-P-7601	Replace timing chain	Observe validity for the models in question.	Remedy
AR05.10-P-7600OGR	Check timing chain	Model 166, 292	Cause

Validity		
Vehicle	Engine	Transmission
461.304	642	*
461.305	642	*
461.330	642	*
461.333	642	*
461.334	642	*
461.340	642	*
461.343	642	*
461.344	642	*
461.346	642	*
461.371	642	*
461.391	642	*
461.392	642	*
C (203)	642	*
C (204)	642	*
CLK (209)	642	*
CLS (218)	642	*
CLS (219)	642	*
E (211)	642	*
E (212)	642	*

G (463)	642	*
GL (164)	642	*
GL/GLS (166)	642	*
GLE (292)	642	*
GLK (204)	642	*
M (164)	642	*
M/GLE (166)	642	*
R (251)	642	*
S (221)	642	*
S (222)	642	*

Full model designation breakdown		
Vehicle	Engine	Transmission
164.120	642.940	722.902
164.121	642.820	722.902
164.122	642.940	722.902
164.124	642.820	722.902
164.125	642.820	722.902
164.822	642.940	722.902
164.823	642.822	722.903
164.824	642.820	722.902
164.825	642.820	722.902
166.023	642.826	722.903
166.023	642.826	725.031
166.024	642.826	722.903
166.024	642.826	725.031
166.823	642.826	722.903
166.823	642.826	725.031
166.824	642.826	722.903
166.824	642.826	725.031
203.020	642.910	716.653
203.020	642.910	722.902
203.220	642.910	716.653
203.220	642.910	722.902
204.022	642.960	711.670
204.022	642.960	722.902
204.023	642.834	711.670
204.023	642.834	722.903
204.025	642.830	711.670
204.025	642.830	722.902
204.089	642.961	722.962
204.092	642.832	722.962

204.222	642.960	711.670
204.222	642.960	722.902
204.223	642.834	711.670
204.223	642.834	722.903
204.225	642.830	711.670
204.225	642.830	722.902
204.289	642.961	722.962
204.292	642.832	722.962
204.983	642.961	722.962
204.992	642.832	722.962
204.993	642.835	722.966
209.320	642.910	716.653
209.320	642.910	722.902
209.420	642.910	716.653
209.420	642.910	722.902
211.020	642.920	716.646
211.020	642.920	716.653
211.020	642.920	722.902
211.022	642.920	722.902
211.024	642.920	722.902
211.084	642.921	722.689
211.089	642.921	722.689
211.220	642.920	716.646
211.220	642.920	716.653
211.220	642.920	722.902
211.222	642.920	722.902
211.284	642.921	722.689
211.289	642.921	722.689
211.620	642.920	722.902
212.020	642.850	722.902
212.021	642.852	711.670
212.021	642.852	722.903
212.021	642.852	725.011
212.023	642.852	711.670
212.023	642.852	722.903
212.023	642.852	725.011
212.024	642.850	711.670
212.024	642.850	722.902
212.024	642.850	725.011
212.025	642.850	711.670
212.025	642.850	722.902
212.025	642.850	725.011
212.025	642.856	711.670

212.025	642.856	722.902
212.025	642.856	725.011
212.026	642.852	711.670
212.026	642.852	722.903
212.026	642.852	725.011
212.027	642.852	711.670
212.027	642.852	722.903
212.027	642.852	725.011
212.089	642.856	722.962
212.093	642.858	722.966
212.093	642.858	725.021
212.094	642.858	722.966
212.094	642.858	725.021
212.220	642.850	722.902
212.221	642.852	711.670
212.221	642.852	722.903
212.221	642.852	725.011
212.223	642.852	711.670
212.223	642.852	722.903
212.223	642.852	725.011
212.224	642.850	711.670
212.224	642.850	722.902
212.224	642.850	725.011
212.225	642.850	711.670
212.225	642.850	722.902
212.225	642.850	725.011
212.226	642.852	711.670
212.226	642.852	722.903
212.226	642.852	725.011
212.227	642.852	711.670
212.227	642.852	722.903
212.227	642.852	725.011
212.289	642.856	722.962
212.293	642.858	722.966
212.293	642.858	725.021
212.294	642.858	722.966
212.294	642.858	725.021
218.323	642.852	722.903
218.323	642.852	725.011
218.323	642.853	722.903
218.323	642.853	725.011
218.326	642.852	722.903
218.326	642.852	725.011

218.393	642.854	722.966
218.393	642.858	722.966
218.394	642.858	722.966
218.923	642.852	722.903
218.923	642.852	725.011
218.923	642.853	722.903
218.923	642.853	725.011
218.926	642.852	722.903
218.926	642.852	725.011
218.993	642.854	722.966
218.993	642.858	722.966
218.994	642.858	722.966
219.322	642.920	722.902
221.022	642.930	722.902
221.026	642.862	722.903
221.080	642.932	722.962
221.083	642.868	722.966
221.122	642.930	722.902
221.126	642.862	722.903
221.180	642.932	722.962
221.183	642.868	722.966
222.032	642.861	722.903
222.032	642.861	725.011
222.033	642.867	722.966
222.123	642.861	722.903
222.123	642.861	725.011
222.132	642.861	722.903
222.132	642.861	725.011
222.133	642.867	722.966
251.020	642.950	722.902
251.021	642.872	722.903
251.022	642.950	722.902
251.023	642.872	722.903
251.026	642.950	722.902
251.122	642.950	722.902
251.123	642.872	722.903
251.124	642.870	722.902
251.125	642.870	722.902
251.126	642.950	722.902
292.324	642.826	722.903
292.324	642.826	725.031
461.304	642.975	722.637
461.304	642.975	722.638

461.305	642.884	722.638
461.305	642.975	722.638
461.330	642.884	722.638
461.330	642.975	722.638
461.333	642.884	722.638
461.333	642.975	722.638
461.334	642.975	722.637
461.334	642.975	722.638
461.340	642.884	722.638
461.340	642.975	722.638
461.343	642.884	722.638
461.343	642.975	722.638
461.344	642.975	722.637
461.344	642.975	722.638
461.346	642.975	722.637
461.346	642.975	722.638
461.371	642.884	722.638
461.371	642.975	722.638
461.391	642.884	722.638
461.391	642.975	722.638
461.392	642.884	722.638
461.392	642.975	722.638
463.303	642.970	722.902
463.306	642.886	722.902
463.306	642.970	722.902
463.336	642.886	722.902
463.340	642.970	722.902
463.341	642.970	722.902
463.346	642.886	722.902
463.346	642.887	722.902
463.348	642.887	722.903