

Engine diagnosis warning lamp lights up: Camshaft adjustment solenoid seizes (0059, 0060, 0063, 0064, 0271, 0272, 0275, 0276) and/or is not oil-tight

Topic number	LI05.20-P-051268
Version	2
Design group	05.20 Camshaft, camshaft adjustment
Date	05-31-2011
Validity	Seizing of solenoids: All engine 272 up to engine number 2729xx 30 759427 (September 17, 2007) All engine 273 up to engine number 2739xx 30 193592 (September 17, 2007) Oil leakage (O-ring of camshaft adjuster solenoid): All engine 272 up to engine number 2729xx 30 895140 (February 2, 2008) All engine 273 up to engine number 2739xx 30 236360 (February 2, 2008) Oil leakage (O-ring of camshaft adjuster position sensor): All engine 272 up to engine number 2729xx 31 618975 (June 21, 2010) All engine 273 up to engine number 2739xx 30 385272 (June 21, 2010)
Reason for change	Supersedes DTB S-B-03.30/08
Reason for block	

Complaint:

The engine diagnosis warning lamp is activated due to one or more of the following fault codes stored in the engine electrical system control unit (0059, 0060, 0063, 0064, 0271, 0272, 0275, 0276).

The fault code is recorded as current and stored in the fault memory.

and/or

The camshaft adjustment solenoid is not oil-tight.

Cause:

Scoring formation at the piston by dirt entry leads to stiffness/seizing of the solenoid plunger for engines M272 up to engine number 2729xx 30 759427 and engines M273 up to engine number 2739xx 30 193592.

and/or

Vehicles up to engine number - engine 272: 2729xx 30 895140; engine 273: 2739xx 30 236360

The sealing ring of the camshaft adjustment solenoid is no longer providing an adequate seal.

Vehicles up to engine number - engine 272: 2729xx 31 618975; engine 273: 2739xx 30 385272

The sealing ring of the camshaft adjuster position sensor is no longer providing an adequate seal.

Remedy:

Replace the problem camshaft adjustment solenoid if the fault has resulted in activation of the engine diagnosis warning lamp (if the fault code has only been stored and has not resulted in activation of the engine diagnosis warning lamp, do not replace the solenoid).

The piston in the new camshaft adjustment solenoid has a nitrided surface to prevent seizing.

A software update of the engine control unit software is not required.

If the camshaft adjustment solenoid is only leaking (no fault code stored) and the engine number is within the number range up to engine number - engine 272: 2729xx 30 895140; engine 273: 2739xx 30 236360, then only replace the O-ring.

In the case of any leakage at the camshaft adjustment solenoid up to engine number - engine 272: 2729xx 31 618975; engine 273: 2739xx 30 385272, the O-ring of the camshaft adjustment position sensor nearest to the camshaft adjustment solenoid must also be replaced.

If the replaced parts have to be returned, the camshaft adjustment solenoid must be accompanied by the initial quick test log and the fault freeze frame data.

Note:

This LI takes precedents on the topics presented and supersedes the previously published DTB S-B-03.30/08. Please refer to other information provided in WIS and / or in the STAR TekInfo.

Symptoms
Power generation / Engine diagnosis / Engine management / Lights up / Engine management indicator lamp /
Power generation / Engine lubrication/oil cooling leaks / External oil loss / Engine lubrication/oil cooling /

Control unit/fault code		
Control unit	Fault code	Fault text
ME 9.7-Motor electronics 9.7, ME - Motor electronics 'ME97' for combustion engine 'M272' (N3/10) (CL (216),CLK (209),M (164),C (203),E (211),SL (230),R (251),CLS (219),GL (164),SLK (171),S (221),G (463))	0063	Continuous camshaft adjustment(LEFT):Incorrect position of the exhaust camshaft(P0024)
ME 9.7-Motor electronics 9.7, ME - Motor electronics 'ME97' for combustion engine 'M272' (N3/10) (CL (216),CLK (209),M (164),C (203),E (211),SL (230),R (251),CLS (219),GL (164),SLK (171),S (221),G (463))	0059	Continuous camshaft adjustment(RIGHT):Incorrect position of the exhaust camshaft(P0014)
ME 9.7-Motor electronics 9.7, ME - Motor electronics 'ME97' for combustion engine 'M272' (N3/10) (GLK (204),C (204),E (212),E (207))	0064	Adjustment of the exhaust camshaft (cylinder bank 2) is performed late.
ME 9.7-Motor electronics 9.7, ME - Motor electronics 'ME97' for combustion engine 'M272' (N3/10) (GLK (204),C (204),E (212),E (207))	0271	The position of the intake camshaft (cylinder bank 1) deviates from the specified value.
ME 9.7-Motor electronics 9.7, ME - Motor electronics	0276	Adjustment of the intake camshaft (cylinder bank 2) is performed late.

'ME97' for combustion engine 'M272' (N3/10) (GLK (204),C (204),E (212),E (207))		
ME 9.7-Motor electronics 9.7, ME - Motor electronics 'ME97' for combustion engine 'M272' (N3/10) (CL (216),CLK (209),M (164),C (203),E (211),SL (230),R (251),CLS (219),GL (164),SLK (171),S (221),G (463))	0276	Continuous camshaft adjustment(LEFT):Incorrect position of the intake camshaft(P0022)
ME 9.7-Motor electronics 9.7, ME - Motor electronics 'ME97' for combustion engine 'M272' (N3/10) (CL (216),CLK (209),M (164),C (203),E (211),SL (230),R (251),CLS (219),GL (164),SLK (171),S (221),G (463))	0064	Continuous camshaft adjustment(LEFT):Incorrect position of the exhaust camshaft(P0025)
ME 9.7-Motor electronics 9.7, ME - Motor electronics 'ME97' for combustion engine 'M272' (N3/10) (GLK (204),C (204),E (212),E (207))	0272	Adjustment of the intake camshaft (cylinder bank 1) is performed late.
ME 9.7-Motor electronics 9.7, ME - Motor electronics 'ME97' for combustion engine 'M272' (N3/10) (GLK (204),C (204),E (212),E (207))	0060	Adjustment of the exhaust camshaft (cylinder bank 1) is performed late.
ME 9.7-Motor electronics 9.7, ME - Motor electronics 'ME97' for combustion engine 'M272' (N3/10) (CL (216),CLK (209),M (164),C (203),E (211),SL (230),R (251),CLS (219),GL (164),SLK (171),S (221),G (463))	0272	Continuous camshaft adjustment(RIGHT):Incorrect position of the intake camshaft(P0012)
ME 9.7-Motor electronics 9.7, ME - Motor electronics 'ME97' for combustion engine 'M272' (N3/10) (GLK (204),C (204),E (212),E (207))	0059	The position of the exhaust camshaft (cylinder bank 1) deviates from the specified value.
ME 9.7-Motor electronics 9.7, ME - Motor electronics 'ME97' for combustion engine 'M272' (N3/10) (GLK (204),C (204),E (212),E (207))	0063	The position of the exhaust camshaft (cylinder bank 2) deviates from the specified value.
ME 9.7-Motor electronics 9.7, ME - Motor electronics 'ME97' for combustion engine 'M272' (N3/10) (CL (216),CLK (209),M (164),C (203),E (211),SL (230),R (251),CLS (219),	0275	Continuous camshaft adjustment(LEFT):Incorrect position of the intake camshaft(P0021)

GL (164),SLK (171),S (221),G (463))		
ME 9.7-Motor electronics 9.7, ME - Motor electronics 'ME97' for combustion engine 'M272' (N3/10) (CL (216),CLK (209),M (164),C (203),E (211),SL (230),R (251),CLS (219),GL (164),SLK (171),S (221),G (463))	0060	Continuous camshaft adjustment(RIGHT):Incorrect position of the exhaust camshaft(P0015)
ME 9.7-Motor electronics 9.7, ME - Motor electronics 'ME97' for combustion engine 'M272' (N3/10) (GLK (204),C (204),E (212),E (207))	0275	The position of the intake camshaft (cylinder bank 2) deviates from the specified value.
ME 9.7-Motor electronics 9.7, ME - Motor electronics 'ME97' for combustion engine 'M272' (N3/10) (CL (216),CLK (209),M (164),C (203),E (211),SL (230),R (251),CLS (219),GL (164),SLK (171),S (221),G (463))	0271	Continuous camshaft adjustment(RIGHT):Incorrect position of the intake camshaft(P0011)

Parts							
Part number	xsl-Par-tEs1	xsl-Par-tEs2	Designation	Quantity	Note	EPC	Non-EPC
A 272 051 01 77			Camshaft adjustment solenoid	1		X	
A 019 997 37 45			O-ring	1	To be used when camshaft adjustment solenoid is not oil-tight, without fault code. Vehicles up to engine number - engine 272: 2729xx 30 895140; engine 273: 2739xx 30 236360	X	
A 023 997 12 45			O-ring	1	If the camshaft adjustment solenoid is leaking, the position sensor O-ring nearest to the camshaft adjustment solenoid must be replaced. Vehicles up to engine number - engine 272: 2729xx 31 618975; engine 273: 2739xx 30 385272	X	