
Intermittently reduced power, faults including some referring to exhaust back pressure sensor logged

Topic number	LI54.18-P-061568
Version	1
Design group	54.18 Cable harnesses
Date	06-09-2015
Validity	Model 166, 222 with engine 642.8
Reason for change	
Reason for block	

Complaint:

Intermittently reduced power. After an ignition cycle, the complaint is no longer reproducible.

- No warning was displayed in the instrument cluster and no faults are logged in the engine control unit (N3/9) in the quick test.
- The engine diagnosis warning lamp was activated and faults including some referring to the exhaust back pressure sensor (B60) are logged in the quick test. For relevant fault codes see 'Control unit/ fault code'.

Cause:

Intermittent transition resistances in the wiring harness at the crimp connections of the female contacts.

Remedy:

If all the test steps stored in Xentry Diagnostics have been performed and no component faults were found, the following work must be carried out:

- Visually inspect contacts at engine control unit (N3/9) connector M+F.
- Visually inspect connections/ female contacts of relevant sensors for which faults are logged.

If no noticeable problems are found, perform the following work:

If no faults were logged under the engine control unit (N3/9) in the quick test, read out the fault codes without status filter. (Xentry Diagnostics => Engine control unit (N3/9) => Special processes => 'Display all fault codes without status filter')

- For faults in the differential pressure sensor (B28/8): Install repair wiring harness (see Parts) using solder connectors. For this, refer to WIS document AR00.19-P-0100-09A!
- For faults in the exhaust back pressure sensor (B60): Replace female contacts (see Parts) of connector on sensor.
- For faults in the high-pressure fuel pressure sensor (B4/6): Replace female contacts (see Parts) of connector on sensor.

Notes:

Contact spray must never be used on contacts on the engine wiring harness. The use of contact cleaners can cause consequential damage!

If the fault reoccurs, please Open a PTSS case and provide Copy of the Quick Test, Copy of "Display all fault codes without status filter", test steps performed with parts numbers replaced.

Symptoms
Power generation / Engine management / Engine management indicator lamp / Electronic diesel control / lit
Power generation / Engine management / Engine performance / Goes into limp-home mode
Power generation / Engine management / Engine performance / No/poor output
Power generation / Engine management / Engine performance / Cuts off

Control unit/fault code		
Control unit	Fault code	Fault text
CDI - Motor electronics 'CDI60LS' for combustion engine 'OM642' (N3/9) (CR60LS) (M/GLE (166),GL/GLS (166))	159300	There is an internal fault in component 'B60 (Exhaust pressure sensor)'.
CDI - Motor electronics 'CDI60LS' for combustion engine 'OM642' (N3/9) (CR60LS) (M/GLE (166),GL/GLS (166))	11B800	The control deviation during rail pressure regulation via the quantity control valve is too high.
CDI - Motor electronics 'CDI60LS' for combustion engine 'OM642' (N3/9) (CR60LS) (M/GLE (166),GL/GLS (166))	11B900	The control deviation during rail pressure regulation via the quantity control valve is too high.
CDI - Motor electronics 'CDI60LS' for combustion engine 'OM642' (N3/9) (CR60LS) (M/GLE (166),GL/GLS (166))	11C500	The signal voltage of component 'B4/6 (Rail pressure sensor)' is too high.
CDI - Motor electronics 'CDI60LS' for combustion engine 'OM642' (N3/9) (CR60LS) (M/GLE (166),GL/GLS (166))	159600	Component 'B60 (Exhaust pressure sensor)' has a short circuit to ground.
CDI - Motor electronics 'CDI61' for combustion engine 'OM642' (N3/9) (CR61)	P047129	Exhaust back pressure sensor 1 has a malfunction. There is an invalid signal.
CDI - Motor electronics 'CDI61' for combustion engine 'OM642' (N3/9) (CR61)	P047200	Exhaust back pressure sensor 1 has a short circuit to ground. _
CDI - Motor electronics 'CDI60LS' for combustion engine 'OM642' (N3/9) (CR60LS) (M/GLE (166),GL/GLS (166))	15FE00	The signal voltage of component 'B28/8 (DPF differential pressure sensor)' is too high.
CDI - Motor electronics 'CDI61' for combustion engine 'OM642' (N3/9) (CR61)	P245328	The input for differential pressure sensor 1 in the diesel particulate filter has a malfunction. The signal offset is outside the permissible range.
CDI - Motor electronics 'CDI61' for combustion engine 'OM642' (N3/9) (CR61)	P245400	The input for differential pressure sensor 1 in the diesel particulate filter has a short circuit to ground. _

CDI - Motor electronics 'CDI61' for combustion engine 'OM642' (N3/9) (CR61)	P019185	The rail pressure sensor has a malfunction. There is a signal above the permissible limit value.
CDI - Motor electronics 'CDI60LS' for combustion engine 'OM642' (N3/9) (CR60LS) (M/GLE (166),GL/GLS (166))	131E00	Control deviation during rail pressure regulation due to tank run empty

Parts						
Part number	ES1	ES2	Designation	Quantity	Note	EPC
A 014 545 27 26			Female contact MQS	2	Female contact B60	X
A 204 440 64 40			Repair wiring harness for differential pressure sensor	1	Repair kit B28/8	X
A 009 545 81 26			Female contact SLK2.8	3	Female contact B4/6	X

WIS-References			
Document number	Title	Note	Allocation
AR00.19-P-0100A	Wiring harness general repair methods		Remedy
AR00.19-P-0120A	Remove contacts from connectors, couplings		Remedy
AR00.19-P-0100-03A	Repair wiring harness by crimping		Remedy
AR00.19-P-0100-09A	Repair wiring harness using solder connectors		Remedy

Validity		
Vehicle	Engine	Transmission
GL/GLS (166)	642	*
M/GLE (166)	642	*
S (222)	642	*

Full model designation breakdown		
Vehicle	Engine	Transmission
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

XENTRY

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