BMW 520d F11 - vehicle is leaning to one side

Data sheet	
Manufacturer	BMW
Vehicle model	520d
Engine	2.0 d
Engine code	N47/B47
Year of manufacture	2010-2017
Symptoms	Vehicle leaning to one side / error message states that levelling system is faulty
Recommended tool	mega macs X

Important safety information

Vehicle is leaning to one side as a result of a leak in the rear axle air suspension

In the case of the above-mentioned vehicle type, if the vehicle has been stationary for a longer period of time, it can happen that the vehicle drops to one side or the rear axle ends up completely in its lowest position. Then when the car is being driven, the message "Level control faulty" may well be displayed in the instrument cluster. The entry "Raise control time" or a comparable error relating to levelling control is often stored in the error memory.

If the compressor, valve block and level sensors have all been checked during troubleshooting and no problems found, special attention should be paid to the air springs on the rear axle. Hairline cracks or porous areas on the air springs lead to a loss of pressure, as a result of which the level control can no longer maintain the specified height.

In order to check this, raise the vehicle using a lift so that the wheels are hanging freely and the air springs are not under load. The air springs should then be sprayed with a soapy water mixture.

The formation of bubbles indicates leaks. The area around the folds of the air spring should be checked particularly carefully, as leaks often occur in this area.

If no abnormalities are found, the test should be carried out again on a lifting platform with drive-on ramps or runways so that the air springs of the rear axle can be tested in their compressed, i.e. deflected state. In this way, leaks that only occur under load can be clearly localised.

If the above-mentioned defect applies and a leak has been detected on one air spring, both air springs on the rear axle must always be replaced. Continued driving with leaking air springs means that the compressor carries on pumping and may overheat or fail.

Once the cause of the fault has been rectified, delete the error memory and then carry out a test drive.

Please note

Please always observe the maintenance and repair notes provided by the vehicle manufacturer when carrying out such work and checks!

This fault profile may also occur in other vehicle models with comparable equipment variants.

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