



BMW 116i (F20) - Vehicle jerking at full load

Data sheet	
Manufacturer	BMW
Vehicle model	116i F20
Drive unit	1.6i
Engine code	N13
Year of manufacture	2011-2015
Symptoms	Engine stutters when under load, no fault message in the instrument cluster
Recommended tool	mega macs X

Important safety information

Vehicle jerking and misfiring at full load – causes and solutions

In the above-mentioned vehicle type, the vehicle may jerk at full load or briefly cut out power transmission – especially from fourth gear onwards. The engine malfunction indicator light remains off and no relevant entries are stored in the engine control unit fault memory.

If the above-mentioned fault pattern sounds familiar, and if no definite faults have been identified in the periphery of the affected systems during troubleshooting, pay special attention to the ignition system. The ignition coils may cause sporadic misfiring when under load, which are not clearly identified by the control unit and therefore do not trigger a fault memory entry. The resulting incomplete combustion manifests itself as a jerky power cut-outs while driving.

For troubleshooting, check the ignition system parameters using a suitable diagnostic unit during a test drive. If the live data in the control unit is abnormal in terms of misfiring under load, remove the spark plugs as per manufacturer's instructions and visually check them for faults. If there are

no abnormalities on the spark plugs, replace the ignition coils at one position at a time. Then repeat the test drive and re-analyse the parameters to narrow down the affected component.

If misfiring re-occurs on a different cylinder during the repeat test drive, replacing the affected ignition coil may eliminate the issue.

Once the cause of the fault has been rectified, delete the fault memory and then go for a test drive.

For your own safety and the safety of other road users, test and trial drives must always be carried out with a second person (driver) present.

Please note

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

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

Reprinting, distribution, reproduction, exploitation in any form whatsoever or disclosure of the contents of this document, even in part, is prohibited unless our express permission has been obtained in writing beforehand and the source is stated. The schematic illustrations, pictures and descriptions are provided for explanatory purposes and are only intended as a visual supplement to the document text, so they cannot be used as the basis for installation or assembly work. All rights reserved.