

Contents

00 - Technical data	1
1 Safety instructions	1
1.1 Safety precautions when working on vehicles with a compressed natural gas (CNG) system	1
2 General information	2
2.1 General instructions for fuel engine	2
2.2 Controlled gas release and uncontrolled gas leakage	2
3 Training / personnel qualification	3
3.1 Training	3
4 Vehicle repairs acceptance	4
4.1 Acceptance of repairs for gas vehicles	4
5 Laws and regulations	5
5.1 Regulations and directives	5
5.2 Valid instructions, regulations, standards and recommendations for the service, assembly and repair work on the natural gas system (CNG)	5
5.3 Workplace requirements	6
6 Technical and physical principles	7
6.1 Physical properties	7
7 Repair notes	8
7.1 Rules of cleanliness	8
8 Checking the gas system	9
8.1 Test requirements for gas systems	9
8.2 Inspecting the natural compressed gas system (NCG) for leak tightness	9
8.3 Search for leaks in the gas system with the gas leak detector	14
8.4 Search for leaks in the gas system with the leak search spray	15
20 - Fuel supply system	17
1 Fuel tank	17
1.1 Fitting location overview - fuel system	17
1.2 Damage assessment catalogue for natural gas fuel tanks	24
1.3 Reduce fuel pressure	27
1.4 Emptying natural gas fuel tank	29
1.5 Determining the residual pressure in the natural gas fuel tank	30
1.6 Inerting the natural gas fuel tank	42
1.7 Handling natural gas fuel tanks	43
1.8 Storing natural gas fuel tanks	43
1.9 Disposing of the natural gas fuel tank	45
2 Senders and sensors	46
2.1 Gas rail temperature and pressure sensor GX21	46
2.2 High-pressure valve for gas mode N372	46
2.3 Gas distribution line sensor G401	47
2.4 Tank pressure sensor G400	47
24 - Mixture preparation - injection	49
1 Mixture preparation - injection	49
1.1 Differentiating pressure area of the natural gas fuel supply system	49