

Contents

23 - Mixture preparation - injection	1
1 Safety precautions and rules for cleanliness	1
1.1 Safety precautions when using testers and measuring instruments during a road test	1
1.2 Safety precautions when working on the fuel system	1
1.3 Safety precautions when working on the ignition system	3
1.4 Contact corrosion!	3
1.5 Checking vacuum system	4
2 Injection system	5
2.1 Overview of fitting locations	5
2.2 System layout	10
2.3 Air cleaner - exploded view	12
2.4 Removing and installing engine cover panel	13
2.5 Removing and installing air filter element (left-side)	14
2.6 Removing and installing air filter element (right-side)	15
2.7 Removing and installing air cleaner housing	16
2.8 Removing and installing air mass meter G70	18
2.9 Removing and installing air mass meter 2 G246	19
2.10 Intake manifold - exploded view	20
2.11 Removing and installing intake manifold	22
2.12 Removing and installing intake manifold flap motor V157 / V275	24
2.13 Removing and installing throttle valve module J338	25
2.14 Injectors, high-pressure pipes, rail element - exploded view	26
2.15 Installing high-pressure pipes	29
2.16 Checking injectors	31
2.17 Adaption of injector delivery calibration values and injector voltage calibration values	31
2.18 Checking return flow rate of injectors with engine running	32
2.19 Checking return flow rate of injectors at starter cranking speed	35
2.20 Checking pressure retention valve in fuel return line	36
2.21 Removing and installing injectors	37
2.22 Removing and installing fuel pressure sender G247 / G624	43
2.23 Removing and installing fuel pressure regulating valve N276 / N484	45
2.24 High-pressure pump - exploded view	48
2.25 Removing and installing high-pressure pump (left-side)	50
2.26 Removing and installing high-pressure pump (right-side)	57
2.27 Performing first fuel filling after installing high-pressure pump	64
2.28 Bleeding fuel system and checking for leaks	66
2.29 Removing and installing fuel temperature sender G81	67
2.30 Lambda probe, exhaust gas temperature senders and pressure senders - exploded view	67
2.31 Removing and installing Lambda probe G39 / G108	69
2.32 Removing and installing pressure differential sender G505 / G524	70
3 Engine control units	72
3.1 Renewing engine control unit J623 (master control unit)	72
3.2 Renewing engine control unit 2 J624 (slave control unit)	75
28 - Glow plug system	81
1 Glow plug system	81
1.1 Glow plugs, Hall sender, engine speed sender - exploded view	81
1.2 Checking glow plug system	81
1.3 Removing and installing glow plugs	82
1.4 Removing and installing engine speed sender G28	83
1.5 Removing and installing Hall sender G40	84