



Contents

24 - Mixture preparation - injection	1
1 Technical data	1
2 Safety precautions	2
2.1 Safety precautions when working on the fuel supply system	2
2.2 Safety precautions when working on vehicles with start/stop system	2
2.3 Safety precautions when using testers and measuring instruments during a road test	3
2.4 Safety precautions when working on the cooling system	3
2.5 Safety precautions when working on the exhaust system	3
2.6 Safety precautions when working on the ignition system	4
2.7 Safety precautions when working on the subframe	4
3 Repair instructions	5
3.1 Identification plates	5
3.2 Use of impact wrenches	5
3.3 Rules for cleanliness	6
3.4 General notes	6
3.5 General repair instructions	6
3.6 Foreign particles in engine	7
3.7 Contact corrosion	7
3.8 Routing and attachment of pipes, hoses and wiring	7
3.9 Nuts, bolts	7
3.10 Installing radiators and condensers	8
3.11 Checking vacuum system	8
4 Overview of fitting locations - injection system	9
4.1 Exploded view - air cleaner	17
4.2 Removing and installing engine cover panel	18
4.3 Removing and installing air filter element	18
4.4 Removing and installing air mass meter G70	20
4.5 Exploded view - intake manifold	20
4.6 Fuel rail - exploded view	23
4.7 Removing and installing intake manifold with fuel rail	24
4.8 Removing and installing fuel rail	28
4.9 Removing and installing injectors	29
4.10 Renewing combustion chamber ring seal (teflon ring seal)	31
4.11 Cleaning injectors	33
4.12 Removing and installing intake manifold flap motor V157 with intake manifold flap potentiometer G336	34
4.13 Removing and installing fuel pressure sender G247	36
4.14 Checking fuel pressure sender G247	37
4.15 Checking fuel pressure and residual pressure (up to high-pressure pump)	39
4.16 Exploded view - high-pressure pump	43
4.17 Removing and installing high-pressure pump	44
4.18 Wiring and component check with test box V.A.G 1598/42	45
4.19 Renewing engine control unit J623	47
4.20 Removing and installing Lambda probe G39 and Lambda probe heater Z19 before catalytic converter	51
4.21 Removing and installing Lambda probe after catalytic converter G130 and Lambda probe 1 heater after catalytic converter Z29	52
28 - Ignition system	54
1 Checking ignition system	54
1.1 Technical data for ignition system	54
2 Servicing ignition system	55
2.1 Exploded view - ignition system	55



2.2	Removing and installing ignition coils with output stages	55
2.3	Removing and installing knock sensor 1 G61 and knock sensor 2 G66	57