

Contents

24 - Mixture preparation - injection	1
1 Safety precautions and rules for cleanliness	1
1.1 General notes on self-diagnosis	1
1.2 Safety precautions when working on the fuel system	2
1.3 Safety precautions when working on the injection and ignition system	2
1.4 Safety precautions when working on vehicles with start/stop system	3
1.5 Safety precautions after working in the engine compartment	3
1.6 Safety precautions when using testers and measuring instruments during a road test	4
1.7 Rules for cleanliness and instructions for working on fuel system	4
1.8 Reducing pressure in high-pressure section of injection system	4
1.9 Checking for leaks in the fuel system	5
1.10 Checking vacuum system	6
2 Injection system	7
2.1 Test data	7
2.2 Overview of fitting locations - injection system	8
3 Air cleaner	18
3.1 Exploded view - air cleaner	18
3.2 Removing and installing air filter element	18
3.3 Removing and installing air cleaner housing	20
4 Intake manifold, fuel rail and injectors	23
4.1 Exploded view - intake manifold	23
4.2 Removing and installing intake manifold	25
4.3 Removing and installing intake manifold flap potentiometer	32
4.4 Removing and installing injectors	34
4.5 Removing and installing intake air temperature sender G42	37
4.6 Removing and installing fuel pressure senders	39
4.7 Exploded view - throttle valve module	41
4.8 Removing and installing intake manifold pressure sender G71	42
4.9 Removing and installing throttle valve module J338	43
4.10 Removing and installing temperature sender for charge air cooler G763 / G764	44
5 High-pressure pump	45
5.1 Exploded view - high-pressure pump	45
5.2 Exploded view - fuel lines	46
5.3 Removing and installing high-pressure pipe	49
5.4 Removing and installing fuel pressure sender for low pressure G410	54
5.5 Removing and installing high-pressure pump	55
6 Lambda probes	58
6.1 Overview - Lambda probes	58
6.2 Removing and installing Lambda probes	58
7 Engine control unit	63
7.1 Wiring and component check with isolator boxes VAS 6606	63
7.2 Removing and installing engine control unit J623	64
28 - Ignition system	68
1 General notes and safety precautions	68
1.1 General notes on ignition system	68
1.2 Safety precautions when working on the injection and ignition system	68
1.3 Safety precautions when working on vehicles with start/stop system	69
1.4 Safety precautions after working in the engine compartment	69
1.5 Safety precautions when using testers and measuring instruments during a road test	70
2 Servicing ignition system	71
2.1 Test data	71



2.2	Ignition system - exploded view	72
2.3	Removing and installing ignition coils	73
2.4	Removing and installing knock sensors	77
2.5	Removing and installing Hall senders	83
2.6	Removing and installing engine speed sender G28	87