

## Contents

<b>00 - Technical data</b> .....	<b>1</b>
<b>1 Technical data</b> .....	<b>1</b>
1.1 Technical data .....	1
1.2 Engine number .....	1
1.3 Engine data .....	1
<b>10 - Removing and installing engine</b> .....	<b>3</b>
<b>1 Removing and installing engine, engine code ABZ, AEW, AKG, AKJ</b> .....	<b>3</b>
1.1 Removing and installing engine, engine code ABZ, AEW, AKG, AKJ .....	3
1.2 Removing .....	3
1.3 Stripping down engine .....	12
1.4 Attaching engine to repair stand .....	15
1.5 Installing .....	15
1.6 Tightening torques, engine codes ABZ, AEW, AKG and AKJ .....	16
<b>2 Removing and installing engine, engine codes AHC and AKH</b> .....	<b>17</b>
2.1 Removing and installing engine, engine codes AHC and AKH .....	17
2.2 Removing .....	17
2.3 Attaching engine to engine stand .....	26
2.4 Installing .....	26
2.5 Tightening torques, engine codes AHC and AKH .....	27
<b>13 - Crankshaft group</b> .....	<b>29</b>
<b>1 Belt drive</b> .....	<b>29</b>
1.1 Belt drive .....	29
1.2 Removing and installing ribbed belt .....	29
1.3 Removing and installing toothed belt .....	32
<b>2 Dismantling and assembling engine</b> .....	<b>40</b>
2.1 Dismantling and assembling engine .....	40
2.2 Servicing flywheel .....	41
2.3 Removing and installing needle bearing bush .....	42
2.4 Drive plate .....	43
2.5 Replacing crankshaft seal .....	44
2.6 Replacing seal for oil pump drive .....	44
<b>15 - Cylinder head, Valve gear</b> .....	<b>46</b>
<b>1 Removing and installing cylinder head</b> .....	<b>46</b>
1.1 Removing and installing cylinder head .....	46
1.2 Installing cylinder head bolts .....	51
1.3 Checking compression .....	52
<b>2 Servicing valve gear</b> .....	<b>53</b>
2.1 Servicing valve gear .....	53
2.2 Removing and installing camshafts .....	63
2.3 Renewing valve stem seals .....	66
2.4 Checking valve guides .....	68
2.5 Renewing valve guides .....	68
2.6 Reworking valve seats .....	70
2.7 Renewing camshaft oil seals .....	71
<b>17 - Lubrication</b> .....	<b>74</b>
<b>1 Removing and installing parts of the lubrication system</b> .....	<b>74</b>
1.1 Removing and installing parts of the lubrication system .....	74
1.2 Oil sump/oil pump, engine codes ABZ, AKG, AHC and AKH .....	75
1.3 Oil sump/oil pump, engine codes AEW and AKJ .....	78



1.4	Oil filter/oil cooler . . . . .	81
1.5	Oil pump drive . . . . .	84
1.6	Removing oil pump . . . . .	86
1.7	Replacing oil retention valves . . . . .	86
1.8	Checking oil pressure switch and oil pressure . . . . .	89
1.9	Engine oil . . . . .	91
1.10	Check oil level . . . . .	92
<b>19</b>	<b>- Cooling system . . . . .</b>	<b>93</b>
<b>1</b>	<b>Removing and installing parts of the cooling system . . . . .</b>	<b>93</b>
1.1	Removing and installing parts of the cooling system . . . . .	93
1.2	Removing and installing viscous fan . . . . .	96
1.3	Coolant pump . . . . .	98
1.4	Draining and filling cooling system . . . . .	99
1.5	Checking cooling system for leaks . . . . .	102
1.6	Checking relief valve in cap . . . . .	102
<b>26</b>	<b>- Exhaust system . . . . .</b>	<b>104</b>
<b>1</b>	<b>Exhaust system, engine codes ABZ, AHC, AKG and AKH . . . . .</b>	<b>104</b>
1.1	Exhaust system, engine codes ABZ, AHC, AKG and AKH . . . . .	104
1.2	Removing and installing exhaust system . . . . .	104
1.3	Catalytic converter mounting . . . . .	108
1.4	Flange connection between catalytic converter and exhaust pipe, front . . . . .	109
1.5	Stress free alignment of exhaust system . . . . .	109
1.6	Checking exhaust system for leaks . . . . .	111
<b>2</b>	<b>Exhaust system, engine codes AEW and AKJ . . . . .</b>	<b>112</b>
2.1	Exhaust system, engine codes AEW and AKJ . . . . .	112
2.2	Removing and installing exhaust system . . . . .	112
2.3	Stress free alignment of exhaust system . . . . .	117
2.4	Checking exhaust system for leaks . . . . .	120