



Contents

00 - Technical data	1
1 Safety information	1
1.1 Safety measures when working on vehicles with a start/stop system	1
1.2 Safety precautions when using testers and measuring instruments during a road test	1
2 Identification	2
2.1 Gearbox identification	2
3 Repair notes	3
3.1 General repair instructions	3
4 Technical data	8
4.1 Capacities	8
4.2 Allocation gearbox - engine	8
4.3 Calculation of gear ratios	9
5 Overview - power transmission	10
5.1 Overview - power transmission - front-wheel drive	10
6 Electrical components	12
6.1 Overview of fitting locations - electrical components	12
30 - Clutch	14
1 Clutch mechanism	14
1.1 Assembly overview - pedal cluster	14
1.2 Assembly overview - clutch hydraulics	16
1.3 Assembly overview - clutch release mechanism	19
1.4 Removing and installing clutch pedal	20
1.5 Removing and installing over-centre spring	23
1.6 Removing and installing mounting bracket	25
1.7 Removing and installing clutch master cylinder	31
1.8 Removing and installing clutch slave cylinder	33
1.9 Bleeding clutch mechanism	37
1.10 Checking clutch master cylinder and clutch slave cylinder	38
1.11 Removing and installing clutch position sender G476	38
1.12 Repairing clutch release mechanism	41
2 Clutch	44
2.1 Assembly overview - clutch	44
2.2 Removing and installing clutch	45
34 - Controls, housing	51
1 Selector mechanism	51
1.1 Installation position - selector mechanism	51
1.2 Assembly overview - gear knob and cover	52
1.3 Assembly overview - selector mechanism	52
1.4 Removing and installing gear knob	54
1.5 Removing and installing selector mechanism	57
1.6 Adjusting selector mechanism	66
1.7 Checking selector mechanism	69
1.8 Repairing selector mechanism	69
1.9 Renewing selector shaft seal	71
2 Removing and installing gearbox	73
2.1 Distinguishing between different types of engines	73
2.2 Specified torques for gearbox	74
2.3 Removing gearbox	76
2.4 Installing gearbox	103
3 Assembly mountings	112



3.1	Assembly overview - assembly mountings	112
4	Transporting gearbox	115
5	Dismantling and assembling gearbox	117
5.1	Schematic overview - gearbox	117
5.2	Assembly overview - cover for gearbox housing and 5th/6th gear	117
5.3	Assembly overview - selector unit	119
5.4	Assembly overview - input shaft, output shafts, differential, selector rods	121
5.5	Assembly overview - selector forks	123
5.6	Repairing selector forks	124
5.7	Dismantling and assembling gearbox	129
6	Gearbox housing, clutch housing	153
6.1	Assembly overview - clutch housing	153
6.2	Assembly overview - gearbox housing and clutch housing	153
6.3	Assembly overview - gearbox housing cover	155
6.4	Repairing gearbox housing	157
6.5	Repairing gearbox housing cover	158
7	Securing to engine and gearbox support	162
8	Gear oil	164
8.1	Checking gear oil level	164
35 - Gears, shafts		166
1	Input shaft	166
1.1	Assembly overview - input shaft	166
1.2	Dismantling and assembling input shaft	169
1.3	Renewing input shaft seal	180
2	Output shaft	182
2.1	Assembly overview - output shaft	182
2.2	Dismantling and assembling output shaft	185
39 - Final drive - differential		193
1	Oil seals	193
1.1	Overview of fitting locations - seals	193
1.2	Renewing left seal	193
1.3	Renewing right seal	196
2	Differential	200
2.1	Assembly overview - differential	200
2.2	Dismantling and assembling differential	202
2.3	Adjusting differential	210