

Contents

00 - Technical data	1
1 Gearbox identification	1
1.1 Gearbox identification	1
1.2 Code letters, gearbox allocation, ratios, capacities	2
2 Identification of rear final drive	3
2.1 Identification of rear final drive	3
2.2 Code letters, allocation, ratios and capacities	4
3 Transmission layout	5
3.1 Transmission layout	5
3.2 Notes on engine output/brake test and towing/tow starting	6
4 Calculations	7
4.1 Calculations	7
4.2 Calculating transmission ratios "i"	7
5 Repair instructions	7
5.1 Repair instructions	7
5.2 Contact corrosion	7
5.3 General repair instructions	8
30 - Clutch	11
1 Servicing clutch mechanism	11
1.1 Servicing clutch mechanism	11
1.2 Assembly overview, pedal cluster	12
1.3 Removing and installing clutch pedal and coil spring	17
1.4 Removing and installing master cylinder	17
1.5 Hydraulic system - general layout	19
1.6 Bleeding clutch system	22
2 Servicing clutch release mechanism	24
2.1 Servicing clutch release mechanism	24
3 Servicing clutch	27
3.1 Servicing clutch	27
34 - Controls, Housing	33
1 Servicing selector	33
1.1 Servicing selector	33
1.2 Servicing selector mechanism	33
1.3 Adjusting gear selector mechanism	37
1.4 Checking gear stick adjustment	38
1.5 Servicing short-travel selector mechanism	39
1.6 Adjusting short-travel selector mechanism	45
1.7 Checking gear stick adjustment	48
2 Removing and installing gearbox	49
2.1 Removing and installing gearbox	49
2.2 Removing	49
2.3 Transporting the gearbox	53
2.4 Securing gearbox to engine and gearbox support	54
2.5 Installing	54
3 Checking gearbox oil level in gearbox	56
3.1 Checking gearbox oil level in gearbox	56
4 Removing and installing cover with Torsen differential	57
4.1 Removing and installing cover with Torsen differential	57
5 Dismantling and assembling gearbox	59
5.1 Dismantling and assembling gearbox	59



5.2	Gearbox overview	59
5.3	Assembly overview	61
5.4	Removing and installing input shaft ball bearing and multi-function sender	62
5.5	Removing and installing input shaft, drive pinion, hollow shaft, selector rods, gearbox cover and cover with Torsen differential	65
5.6	Removing and installing input shaft ball bearing, multi-function sender, input shaft, drive pinion, selector rods, gearbox cover and cover with Torsen differential	69
6	Servicing cover for Torsen differential, removing and installing Torsen differential	77
6.1	Servicing cover for Torsen differential, removing and installing Torsen differential	77
7	Dismantling and assembling selector mechanism in gearbox	85
7.1	Dismantling and assembling selector mechanism in gearbox	85
35 - Gears, Shafts		93
1	Dismantling and assembling input shaft	93
1.1	Dismantling and assembling input shaft	93
2	Adjusting input shaft	105
2.1	Adjusting input shaft	105
3	Dismantling and assembling drive pinion and hollow shaft	107
3.1	Dismantling and assembling drive pinion and hollow shaft	107
4	Removing and installing reverse gear wheel	128
4.1	Removing and installing reverse gear wheel	128
39 - Final drive, Differential rear		130
1	Renewing seal for flange shaft	130
1.1	Renewing seal for flange shaft	130
2	Renewing oil seal for flange shaft/propshaft	132
2.1	Renewing oil seal for flange shaft/propshaft	132
3	Removing and installing speedometer sender and drive wheel	135
3.1	Removing and installing speedometer sender and drive wheel	135
3.2	Removing and installing speedometer sender -G22	135
3.3	Removing and installing speedometer drive wheel	135
4	Removing and installing differential	137
4.1	Removing and installing differential	137
5	Dismantling and assembling differential	141
5.1	Dismantling and assembling differential	141
6	Adjusting drive pinion and crown wheel	150
6.1	Adjusting drive pinion and crown wheel	150
6.2	Adjusting and marking of gear sets	150
6.3	Position of shims	152
6.4	Adjustment overview	152
6.5	Recommended sequence for readjusting final drive set	153
6.6	Adjusting drive pinion	154
6.7	Re-determining "S4" shim when fitting new gearbox cover	163
6.8	Adjusting crown wheel	165
7	Servicing propshaft	172
7.1	Servicing propshaft	172
7.2	Removing and installing propshaft	175
7.3	Adjusting propshaft	179
8	Checking oil level in rear final drive	181
8.1	Checking oil level in rear final drive	181
9	Removing and installing rear final drive	182
9.1	Removing and installing rear final drive	182
9.2	Securing rear final drive to engine and gearbox support	186
10	Renewing flange shaft oil seals	187

10.1	Renewing flange shaft oil seals	187
11	Removing and installing seal for propshaft flange	188
11.1	Removing and installing seal for propshaft flange	188
11.2	Measuring radial run-out at propshaft flange and marking	193
12	Dismantling and assembling rear final drive	195
12.1	Dismantling and assembling rear final drive	195
12.2	Overview of final drive	196
13	Removing and installing differential	197
13.1	Removing and installing differential	197
14	Dismantling and assembling differential	203
14.1	Dismantling and assembling differential	203
15	Removing and installing and dismantling and assembling drive pinion	212
15.1	Removing and installing and dismantling and assembling drive pinion	212
16	Adjusting drive pinion and crown wheel	222
16.1	Adjusting drive pinion and crown wheel	222
16.2	Adjusting and marking of gear sets	223
16.3	Recommended sequence for readjusting final drive set	224
16.4	Adjustment overview	225
16.5	Position of shims	226
16.6	Adjusting drive pinion	227
16.7	Adjusting crown wheel	233