



Contents

00 - Technical data	1
1 Gearbox identification	1
1.1 Gearbox identification	1
1.2 Code letters, gearbox allocation, ratios, capacities	2
2 Rear final drive identification	3
2.1 Rear final drive identification	3
2.2 Code letters, assembly allocation, ratios, capacities	3
3 Transmission layout	4
3.1 Transmission layout	4
4 Calculating overall ratio (i)	6
4.1 Calculating overall ratio (i)	6
4.2 Notes on brake and performance tests and towing	6
5 General repair instructions	6
5.1 General repair instructions	6
30 - Clutch	9
1 Servicing clutch control	9
1.1 Servicing clutch control	9
1.2 Assembly overview - Pedal cluster	10
1.3 Removing and installing over-centre spring	13
1.4 Removing and installing clutch pedal	14
1.5 Assembly overview - Hydraulic system	14
1.6 Removing and installing master cylinder	17
1.7 Bleeding clutch system	18
2 Servicing clutch release mechanism	19
2.1 Servicing clutch release mechanism	19
3 Servicing clutch	22
3.1 Servicing clutch	22
34 - Controls, Housing	26
1 Servicing gear selector mechanism	26
1.1 Servicing gear selector mechanism	26
1.2 Installation position of gear selector mechanism	26
1.3 Removing and installing gear selector cables	29
1.4 Removing and installing gear stick housing	35
1.5 Removing and installing gear stick	39
1.6 Adjusting gear selector mechanism	43
2 Removing and installing gearbox	46
2.1 Removing and installing gearbox	46
2.2 Removing and installing gearbox and bevel box (Vehicles with 4 cylinder engine)	46
2.3 Removing and installing gearbox and bevel box (Vehicles with 6 cylinder fuel injection engine)	57
3 Removing and installing bevel box	69
3.1 Removing and installing bevel box	69
4 Checking oil in manual gearbox with bevel box	80
4.1 Checking oil in manual gearbox with bevel box	80
5 Dismantling and assembling gearbox	81
5.1 Dismantling and assembling gearbox	81
5.2 Removing and installing cover for gearbox housing and 5th gear	82
5.3 Removing and installing gearbox housing and selector mechanism	85
5.4 Removing and installing input shaft, output shaft (pinion shaft), differential and selector forks	87



5.5	Dismantling and assembling sequence	89
6	Servicing gearbox housing and clutch housing	106
6.1	Servicing gearbox housing and clutch housing	106
7	Dismantling and assembling gearbox selector mechanism	114
7.1	Dismantling and assembling gearbox selector mechanism	114
8	Dismantling and assembling selector forks	119
8.1	Dismantling and assembling selector forks	119
35 - Gears, Shafts		125
1	Dismantling and assembling input shaft	125
1.1	Dismantling and assembling input shaft	125
2	Adjusting input shaft	136
2.1	Adjusting input shaft	136
2.2	Table of adjustment shims	137
2.3	Carrying out check measurement	139
3	Dismantling and assembling output shaft (pinion shaft)	140
3.1	Dismantling and assembling output shaft (pinion shaft)	140
4	Adjusting output shaft	164
4.1	Adjusting output shaft	164
5	Dismantling and assembling reverse shaft	167
5.1	Dismantling and assembling reverse shaft	167
39 - Final drive, Differential rear		171
1	Renewing left-hand flange shaft or right-hand drive flange oil seals (gearbox installed)	171
1.1	Renewing left-hand flange shaft or right-hand drive flange oil seals (gearbox installed)	171
1.2	Renewing left-hand flange shaft oil seal	171
1.3	Renewing right-hand drive flange oil seal	172
2	Renewing bevel box output flange oil seal (bevel box removed)	173
2.1	Renewing bevel box output flange oil seal (bevel box removed)	173
3	Dismantling and assembling differential	175
3.1	Dismantling and assembling differential	175
4	Adjustment overview	187
4.1	Adjustment overview	187
5	Adjusting differential	187
5.1	Adjusting differential	187
6	Dismantling and assembling bevel box	190
6.1	Dismantling and assembling bevel box	190
6.2	Assembly overview	190
6.3	Dismantling and assembling sequence	200
7	Adjusting shaft bevel gear and bevel gear (gear set)	210
7.1	Adjusting shaft bevel gear and bevel gear (gear set)	210
7.2	General notes	210
7.3	Adjusting and marking of gear sets	210
7.4	Position of shims	211
7.5	Adjustment overview (bevel box)	211
7.6	Recommended sequence for adjusting gear set	212
7.7	Determining shim "S4" thickness when replacing output flange	212
7.8	Adjusting shaft bevel gear	213
7.9	Adjusting bevel gear	218
8	Removing and installing propshaft	221
8.1	Removing and installing propshaft	221
9	Servicing propshaft	225
9.1	Servicing propshaft	225



10	Checking function of viscous coupling	233
10.1	Checking function of viscous coupling	233
11	Removing and installing viscous coupling	233
11.1	Removing and installing viscous coupling	233
12	Removing and installing viscous coupling oil seal in rear final drive (final drive installed) ..	235
12.1	Removing and installing viscous coupling oil seal in rear final drive (final drive installed) ..	235
13	Removing and installing drive flange oil seal (rear final drive installed)	235
13.1	Removing and installing drive flange oil seal (rear final drive installed)	235
14	Functional check of free-wheel	237
14.1	Functional check of free-wheel	237
15	Functional check of free-wheel lock	237
15.1	Functional check of free-wheel lock	237
16	Removing and installing rear final drive	238
16.1	Removing and installing rear final drive	238
17	Checking rear final drive oil	241
17.1	Checking rear final drive oil	241
18	Dismantling and assembling rear final drive	242
18.1	Dismantling and assembling rear final drive	242
18.2	Removing viscous coupling and rear axle housing from bevel gear housing	254
18.3	Servicing shaft bevel gear bearings	256
18.4	Pressing bevel gear off and on input shaft	260
18.5	Servicing bevel gear/input shaft bearings	261
18.6	Servicing differential bearings	264
18.7	Installing rear axle housing on bevel gear housing and building on viscous coupling	266
19	Dismantling and assembling differential and freewheel (assembly overview)	270
19.1	Dismantling and assembling differential and freewheel (assembly overview)	270
20	Dismantling and assembling differential (sequence)	274
20.1	Dismantling and assembling differential (sequence)	274
21	Removing and installing freewheel (sequence)	275
21.1	Removing and installing freewheel (sequence)	275
22	Dismantling and assembling freewheel (sequence)	276
22.1	Dismantling and assembling freewheel (sequence)	276
23	Adjusting bevel gear and shaft bevel gear (gear set)	277
23.1	Adjusting bevel gear and shaft bevel gear (gear set)	277
23.2	General notes	277
23.3	Adjusting and marking of gear sets	278
23.4	Position of shims	279
23.5	Adjustment overview (rear final drive)	279
23.6	Recommended sequence for adjusting gear set	280
23.7	Adjusting shaft bevel gear	280
23.8	Adjusting bevel gear	284