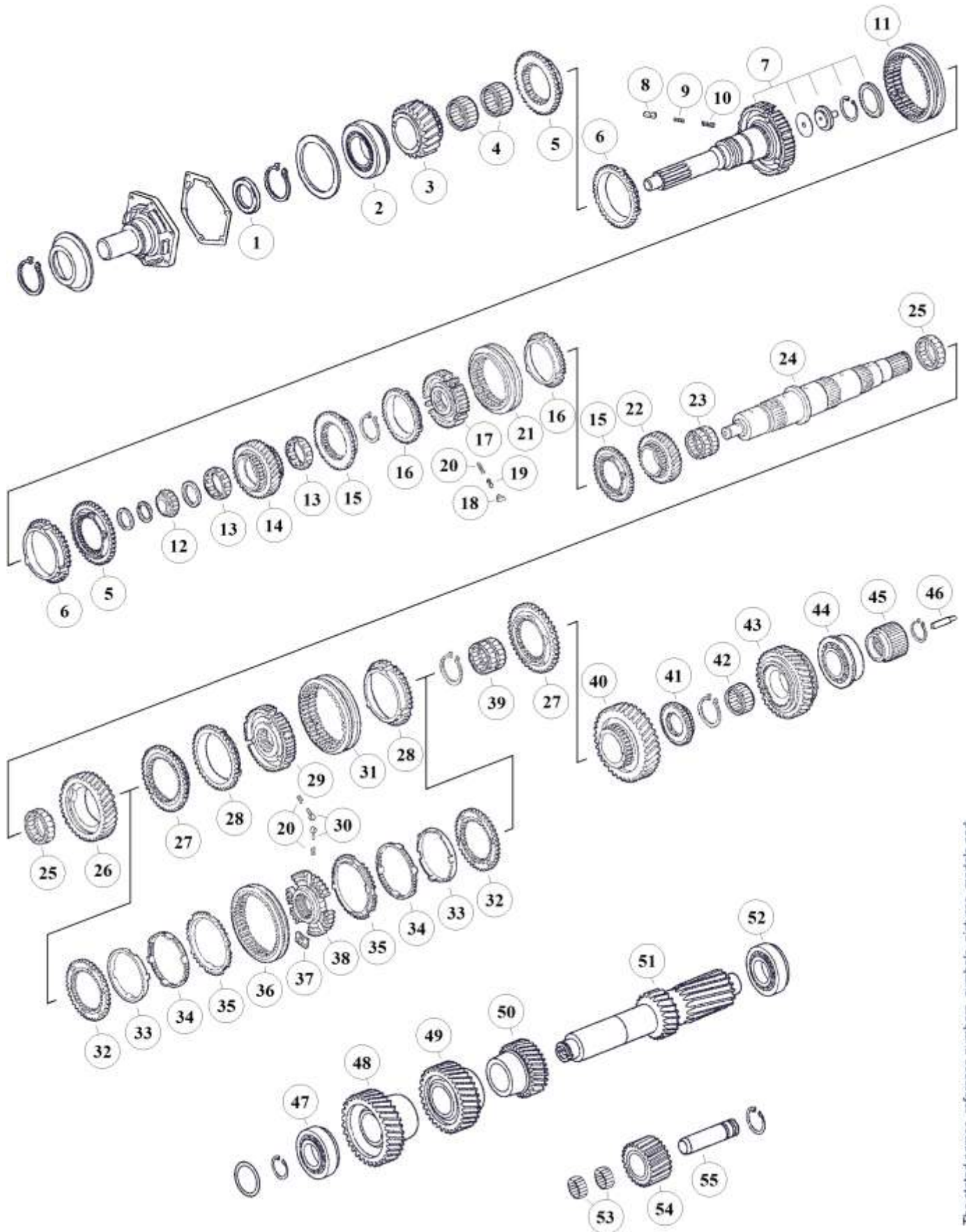


**Suitable to:  
ZF 16S109 EcoMid**

**DAF**

# HIGH END GEARS

## Parts for gearbox: 16S109



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### RATIOS:

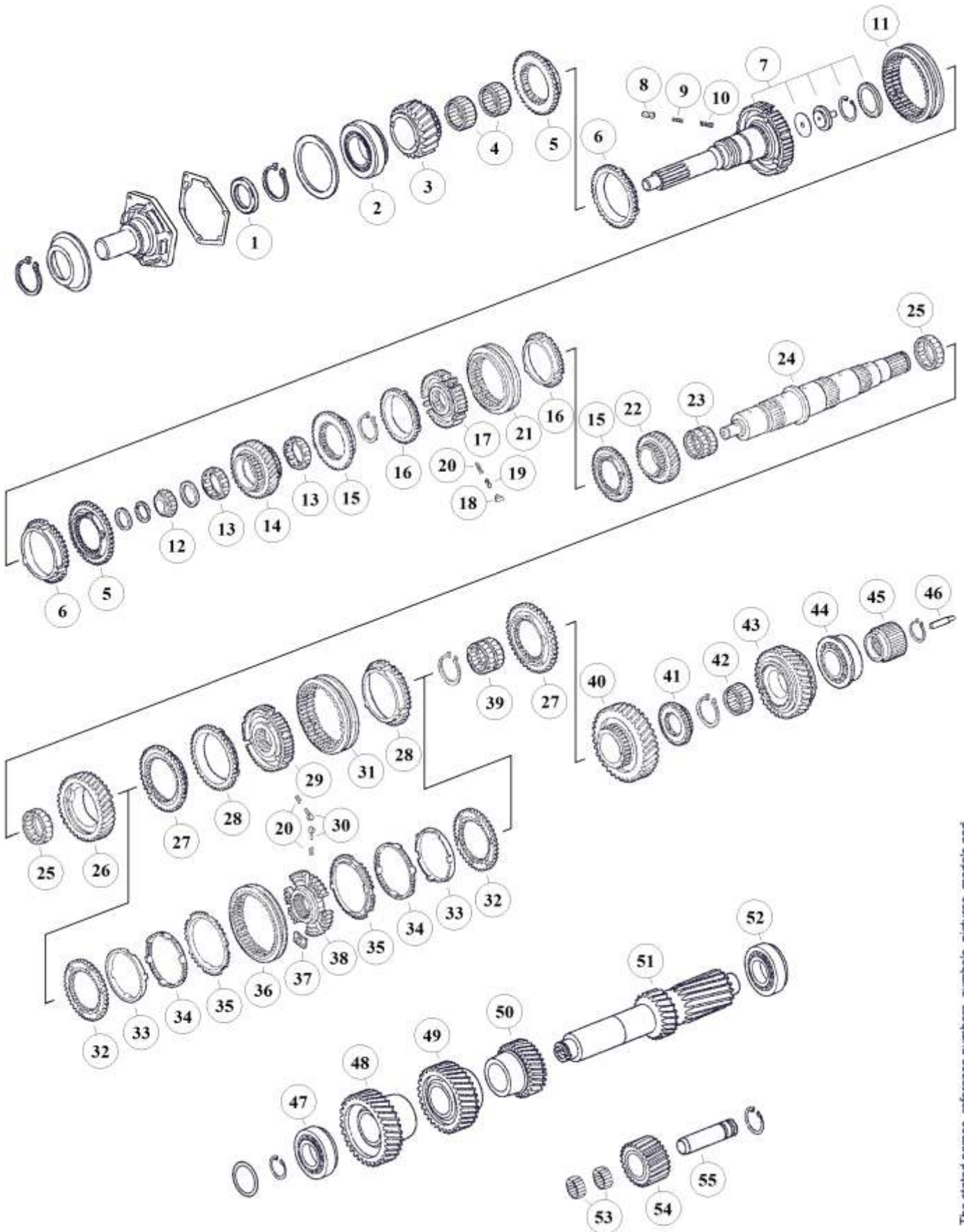
I	13,30 – 1,00	IV	13,42 – 1,00
II	13,31 – 1,00	V	13,53 – 0,82
III	13,41 – 1,00		

Fig.	MAET-No.	DAF-No.	ZF-No.	DESCRIPTION	Q-Ty.	Ratio	Note	16S109 (1304)
1		699617	0750 111 149	Oil Seal D.48x65x10	x1			
2		699615	0750 117 079	Bearing D.66,6x117,4x30,1	x1			
3	00.119.012	69637	1304 302 169	Constant Gear 26 T.	x1	I&II&III&IV		
3	00.119.212		1304 302 150	Constant Gear 30 T.	x1	V		
4		699640	0735 320 816	Needle Cage D.75x83x23	x2			
5	00.119.006	69638	1304 302 188	Coupling Body	x2			
6	00.119.054	69639	1304 304 496	Synchronizer Ring	x2		old	
6	00.119.154	1350353	1304 304 680	Synchronizer Ring	x2		new	
7	00.119.001	1268569	1304 202 201	Input Shaft	x1			
7	00.119.101		1304 202 202	Input Shaft	x1			
7	00.119.201		1304 202 203	Input Shaft	x1			
8	00.168.075	326962	1240 304 278	Pressure Block	x3			
9	00.168.074	326964	0732 040 386	Pressure Spring De.3x34	x3			
10	00.168.076	326963	0732 040 385	Pressure Spring De.6x34	x3			
11	00.168.046	326592	1240 304 272	Sliding Sleeve	x1			
12		1246829	0735 371 406	Roller Cage D.32x33	x1			
13		69655	0750 115 299	Roller Cage D.59,5x81,5x22	x2			
14	00.119.014	69656	1304 304 516	Gear 4th sp. 27 T.	x1	I&II&III&IV		
14	00.119.114	1305823	1304 304 518	Gear 4th sp. 27 T.	x1	V		
15	00.119.106	69652	1304 304 012	Coupling Body	x2			
16	00.109.054	699659	1304 304 014	Synchronizer Ring	x2		old	
16	00.109.254	1363793	1304 304 683	Synchronizer Ring	x2		new	
17	00.119.032	69653	1304 304 515	Synchronizer Hub	x1			
18	00.109.080	171350	1238 304 394	Pressure Block	x3			
19	00.109.075	171351	1249 304 222	Pressure Pin	x3			
20	00.175.205	171349	0732 040 409	Pressure Spring D.6,5x23,5	x3			
21	00.119.128	1382066	1304 304 688	Sliding Sleeve	x1			
22	00.119.031	69651	1304 304 475	Gear 3rd sp. 29 T.	x1	I&II&III&IV		
22	00.119.131	1305822	1304 304 417	Gear 3rd sp. 32 T.	x1	V		
23		699640	0735 320 816	Needle Cage D.75x83x23	x1			
24	00.119.015	1246827	1304 304 630	Main Shaft	x1			
25		699640	0735 320 816	Roller Cage D.75x83x23	x2			
26	00.119.022	69645	1304 304 497	Gear 2nd sp. 32 T.	x1	I&II&III&IV		
26	00.119.122	1339408	1304 304 422	Gear 2nd sp.	x1	V		
27	00.109.108	699642	1304 304 408	Coupling Body	x2			
28	00.109.154	67762	1304 304 542	Synchronizer Ring	x2		old	
28	00.109.354	1352001	1304 304 681	Synchronizer Ring	x2		new	
29	00.119.132	1300674	1304 304 653	Synchronizer Hub	x1			
30	00.151.080	68332	1297 304 436	Pressure Block	x3			
31	00.109.128	68512	1304 304 597	Sliding Sleeve	x1			
32	00.119.206	1296007	1304 304 623	Synchronizer Ring Disk	x2		(#)	
33	00.119.049	1268584	1290 304 350	Intermediate Cone	x2		(#)	
34	00.119.149	1433230	6002 306 154	Intermediate Synchr. Ring	x2		(#)	
35	00.119.254	1268586	1290 304 438	Synchronizer Ring	x2		(#)	
36	00.119.232	1387269	1304 304 687	Synchronizer Hub	x1		(#)	
37	00.119.228	1287575	6002 305 994	Sliding Sleeve	x1		(#)	
38	00.151.380	1300312	1312 304 159	Locking Plate	x3		(#)	
39		69647	0750 115 224	Needle Cage D.70x78x50	x1		(#)	
40	00.119.034	69648	1304 304 358	Gear 1st sp. 37 T.	x1	I&IV		

Special for DAF

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**RATIOS:**

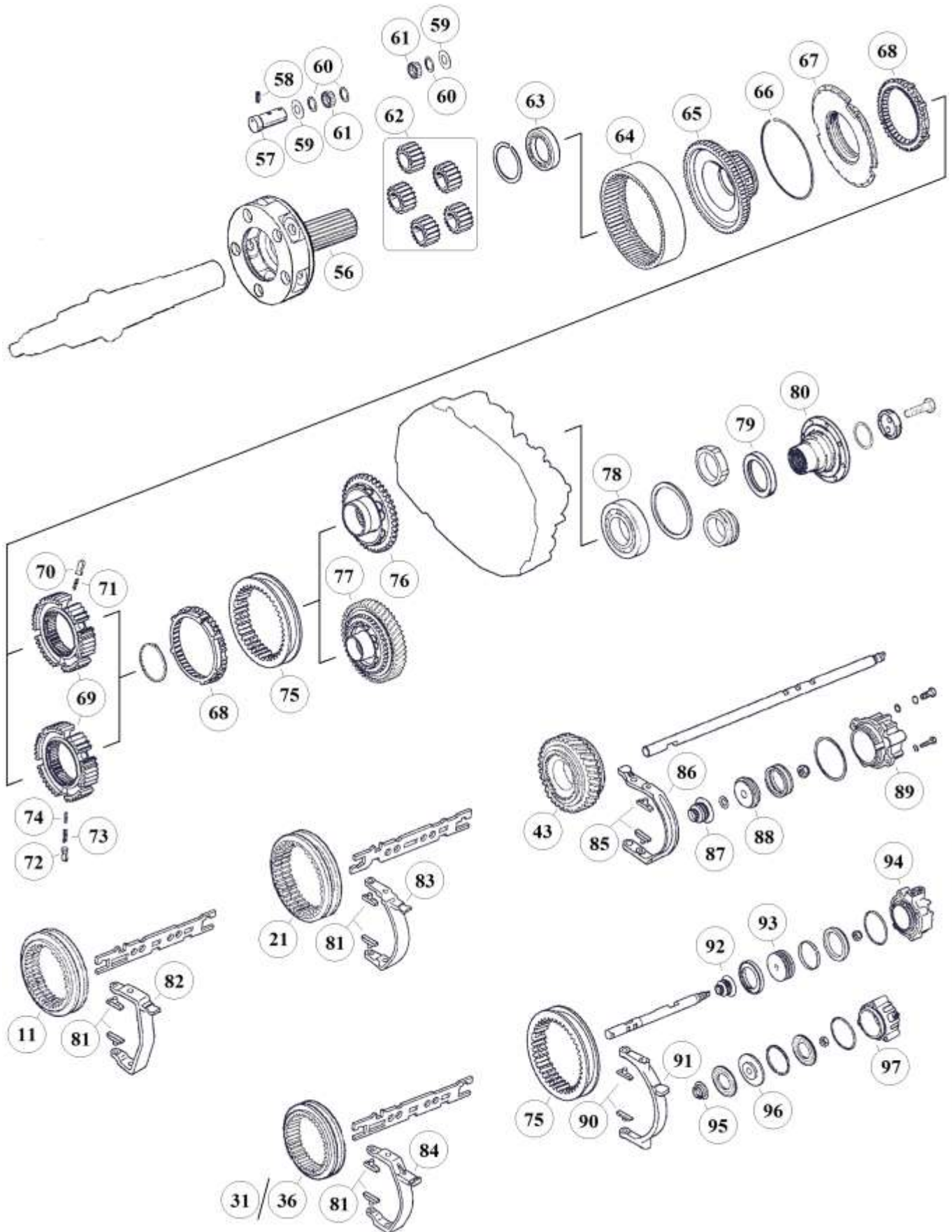
I	13,30 – 1,00	IV	13,42 – 1,00
II	13,31 – 1,00	V	13,53 – 0,82
III	13,41 – 1,00		

Fig.	MAET-No.	DAF-No.	ZF-No.	DESCRIPTION	Q-Ty.	Ratio	Note	16S109 (1304)
40	00.119.234		1304 304 549	Gear 1st sp. 37 T.	x1	II&III		■
40	00.119.134	1305818	1304 304 376	Gear 1st sp. 38 T.	x1	V		■
41	00.119.038	69890	1304 304 007	Coupling Body	x1			■
42		699635	0750 115 225	Needle Cage D.60x68x39	x1			■
43	00.119.035	1305824	1304 304 669	Reverse Gear 32 T.	x1	I&IV		■
43	00.119.235		1304 304 671	Reverse Gear 35 T.	x1	II&III		■
43	00.119.135	1305819	1304 304 670	Reverse Gear 35 T.	x1	V		■
44		1305820	0735 371 605	Bearing D.50,8x104,7x30,1	x1			■
45	00.119.044	69650	1304 304 261	Sun Gear 29 T.	x1	I&II		■
45	00.119.144	69533	1304 304 608	Sun Gear 30 T.	x1	III&IV		■
45	00.119.244	1305821	1304 304 199	Sun Gear 21 T.	x1	V		■
46	00.109.243	1246838	1312 304 150	Oil Tube.	x1			■
47		1197998	0735 371 749	Bearing D.40x80x32.	x1			■
48		69643	1304 303 273	Constant Gear 33 T.	x1	I&II&III&IV		■
48	00.119.512		1304 303 283	Constant Gear 31 T.	x1	V		■
49	00.119.024	69642	1304 303 212	Gear 4th sp. 29 T..	x1	I&II&III&IV		■
49	00.119.124	1305816	1304 303 175	Gear 4th sp. 34 T.	x1	V		■
50	00.119.025	69641	1304 303 214	Gear 3rd sp. 22 T.	x1	I&II&III&IV		■
50	00.119.125	1305815	1304 303 192	Gear 3rd sp. 28 T.	x1	V		■
51	00.119.027	69640	1304 303 276	Counter Shaft	x1	I&IV		■
51	00.119.227	1365980	1304 303 277	Counter Shaft	x1	II&III		■
51	00.119.127	1305814	1304 303 279	Counter Shaft	x1	V		■
52		586693	0750 117 083	Bearing D.50,8x95,2x27,7	x1			■
53		699608	0735 358 192	Needle Cage D.40x60x26	x2			■
54	00.119.036	69399	1304 305 039	Reverse Idler Gear 22 T.	x1	I&IV		■
54	00.119.236	1365979	1304 305 040	Reverse Idler Gear 21 T.	x1	II&III		■
54	00.119.136	1305817	1304 305 041	Reverse Idler Gear 22 T.	x1	V		■
55	00.175.039	699607	1304 305 030	Reverse Idler Pin	x1			■

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### RATIOS:

I	13,30 - 1,00	IV	13,42 - 1,00
II	13,31 - 1,00	V	13,53 - 0,82
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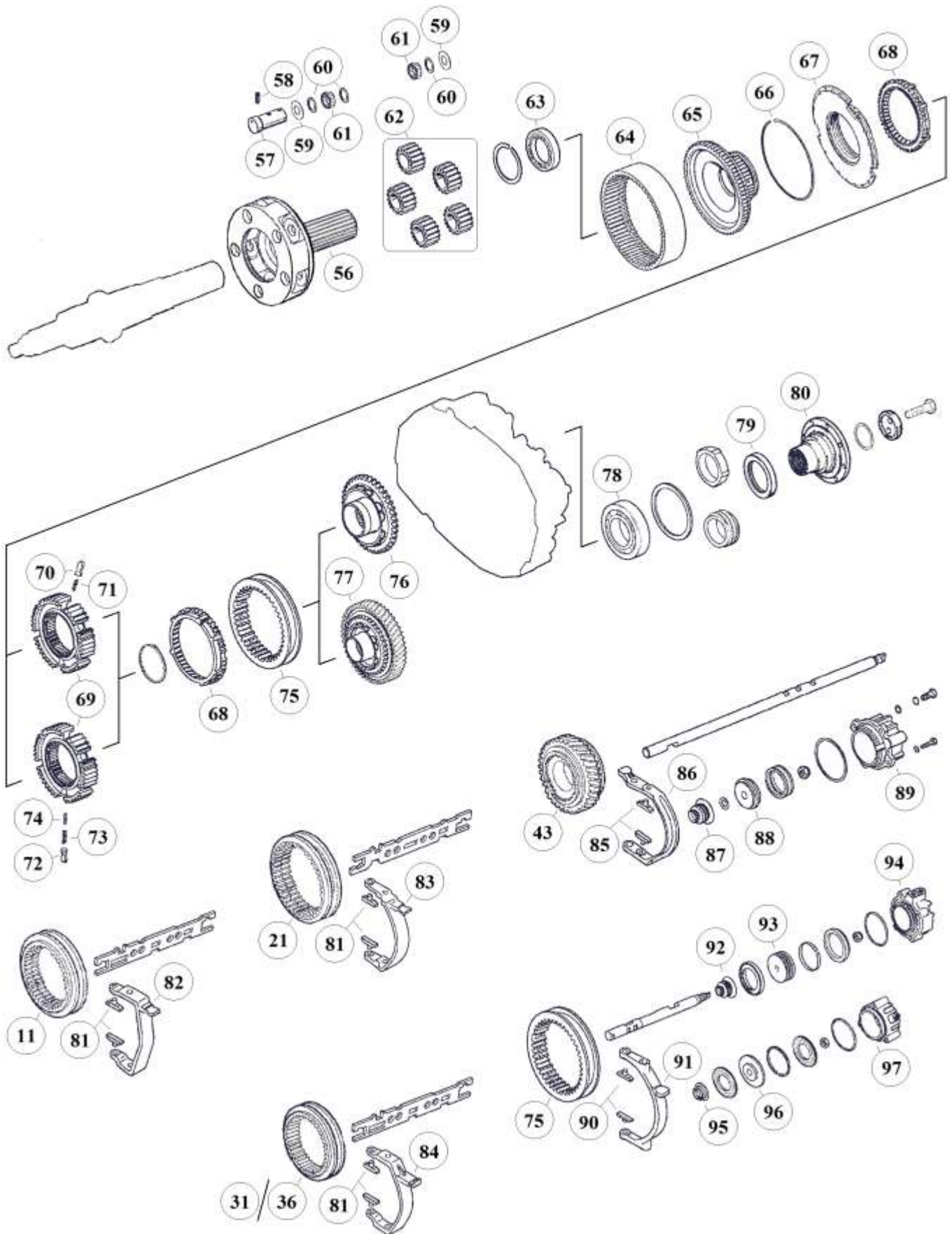
Fig.	MAET-No.	DAF-No.	ZF-No.	DESCRIPTION	Q-Ty.	Ratio	Note	16S109 (1304)
56	00.110.612	1308581	1304 232 088	Planet Carrier	x1	I&II&III&IV		■
56	00.119.712	1305836	1304 232 086	Planet Carrier	x1	V		■
57	00.109.202	66588	1304 332 111	Planet Pin HO	x5			■
58	00.119.220		0631 329 037	Lock Pin 4x26	x5			■
59	00.159.203	609490	0501 304 692	Thrust Washer 1,50	x10			■
60	00.159.204	609489	0730 103 102	Washer 1,50	x15			■
61		66587	0735 470 115	Needle D.5x15,30	x200			■
62	00.119.506	69679	1304 232 026	Planet Gear Set	x1	I&II		■
62	00.119.306	69537	1304 232 054	Planet Gear Set	x1	III&IV		■
62	00.119.406	1305837	1304 232 022	Planet Gear Set	x1	V		■
63		699719	0735 340 080	Bearing D.70x90x10	x1		(a)	■
63		69395	0750 116 165	Bearing D.80x110x16	x1		(b)	■
64	00.109.207	1262888	1304 332 178	Carrier Crown 86 T.	x1	I&II		■
64	00.119.207	69539	1304 332 134	Carrier Crown 90 T.	x1	III&IV		■
64	00.119.307	1305841	1304 332 043	Carrier Crown 74 T.	x1	V		■
65	00.109.204	66630	1304 332 060	Intermediate Carrier 86 T.	x1	I&II	(a)	■
65	00.119.204	1311153	1304 332 215	Intermediate Carrier 86 T.	x1	I&II	(b)	■
65	00.119.304	69538	1304 332 135	Intermediate Carrier 90 T.	x1	III&IV	(a)	■
65	00.119.404		1304 332 216	Intermediate Carrier 90 T.	x1	III&IV	(b)	■
65	00.119.504	1305838	1304 332 044	Intermediate Carrier 74 T.	x1	V	(a)	■
65	00.119.604		1304 332 217	Intermediate Carrier 74 T.	x1	V	(b)	■
66	00.119.298	69540	0730 505 140	Lock Ring	x1	I&II&III&IV		■
66	00.119.398	1305842	0730 505 092	Lock Ring	x1	V		■
67	00.109.208	699727	1304 233 005	Coupling Flange	x1		(a)	■
67	00.109.308	1311173	1304 233 006	Coupling Flange	x1		(b)	■
68	00.109.210	699729	1304 333 005	Synchronizer Ring	x2		(a) old	■
68	00.109.310		1304 333 021	Synchronizer Ring	x2		(a) new	■
68	00.112.210	1303708	1296 333 022	Synchronizer Ring	x2		(b) old	■
68	00.151.308	1354113	1296 333 045	Synchronizer Ring	x2		(b) new	■
69	00.109.211	699728	1304 332 066	Synchronizer Hub	x1		(a)	■
69	00.151.211	69909	1313 333 001	Synchronizer Hub	x1		(b)	■
70	00.168.075	326962	1240 304 278	Pressure Block	x6		(a)	■
71	00.168.076	326963	0732 040 385	Pressure Spring De.6x34	x6		(a)	■
72	00.168.075	326962	1240 304 278	Pressure Block	x9		(b)	■
73	00.168.076	326963	0732 040 385	Pressure Spring De.6x34	x9		(b)	■
74	00.168.074	326964	0732 040 386	Pressure Spring De.3x34	x9		(b)	■
75	00.109.212	699730	1304 332 089	Sliding Sleeve	x1		(a)	■
75	00.119.328	1311176	1304 333 011	Sliding Sleeve	x1		(b)	■
76	00.109.213	699731	1304 332 075	Coupling Body	x1		(a)	■
76	00.119.213	1369530	1304 233 013	Coupling Body	x1		(b)	■
77	00.119.053	1227513	1304 313 133	Retarder Gear	x1		(a)	■
77	00.109.313	1311177	1304 232 085	Retarder Gear	x1		(b)	■
78		699706	0750 116 048	Bearing D.78x130x25	x1		(a)	■
78			0750 116 197	Bearing D.80x140x26	x1		(b)	■
79		1262887	0734 319 439	Oil Seal D.95x115x10	x1			■
80	00.119.065	69681	1304 338 059	Output Flange D.150-4 H.	x1		(a)	■
80	00.119.265	69680	1304 338 050	Output Flange D.180-4 H.	x1		(a)	■
80	00.119.465	1209717	1304 338 052	Output Flange D.180-10 H.	x1		(a)	■
80	00.119.565		1304 338 056	Output Flange D.204-4 H.	x1		(a)	■

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NOTES:

(a)	DO NOT MIX the two different Versions
(b)	DO NOT MIX the two different Versions



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### RATIOS:

I	13,30 - 1,00	IV	13,42 - 1,00
II	13,31 - 1,00	V	13,53 - 0,82
III	13,41 - 1,00		



Fig.	MAET-No.	DAF-No.	ZF-No.	DESCRIPTION	Q-Ty.	Ratio	Note	16S109 (1304)
80	00.119.765	1142221	1304 338 097	Output Flange D.180-4 H.	x1		(b)	■
80			1304 338 109	Output Flange D.180-4 H.	x1		(b)	■
81	00.109.180	689470	1290 306 066	Sliding Pads	x6		(Bronze)	■
82	00.119.188	699666	1304 306 010	Fork	x1			■
82	00.119.288	699755	1304 306 044	Fork	x1			■
83	00.109.388	699668	1304 306 009	Fork	x1			■
83	00.119.488	699754	1304 306 043	Fork	x1			■
84	00.119.588	69662	1304 306 011	Fork	x1			■
85	00.119.080	692686	1268 312 057	Sliding Pads	x2			■
86	00.119.088	69673	1304 312 003	Fork	x1			■
87		699733	0750 112 047	Oil Seal	x1			■
88		69363	1296 312 053	Piston	x1			■
89		69670	1304 212 005	Cylinder	x1			■
90	00.168.059	140936	1272 334 003	Sliding Pads	x2		(Bronze)	■
91	00.119.688	699739	1304 334 039	Fork	x1		(a)	■
91	00.119.788		1304 334 063	Fork	x1		(b)	■
92		699733	0750 112 047	Oil Seal	x1		(a)	■
93		1299322	1304 334 072	Piston	x1		(a)	■
94		1246832	1304 334 061	Cylinder	x1		(a)	■
95		699733	0750 112 047	Oil Seal	x1		(b)	■
96		1369533	1315 334 041	Piston	x1		(b)	■
97		1369535	1304 334 079	Cylinder	x1		(b)	■

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# HIGH END GEARS