

# 10 = Transmission

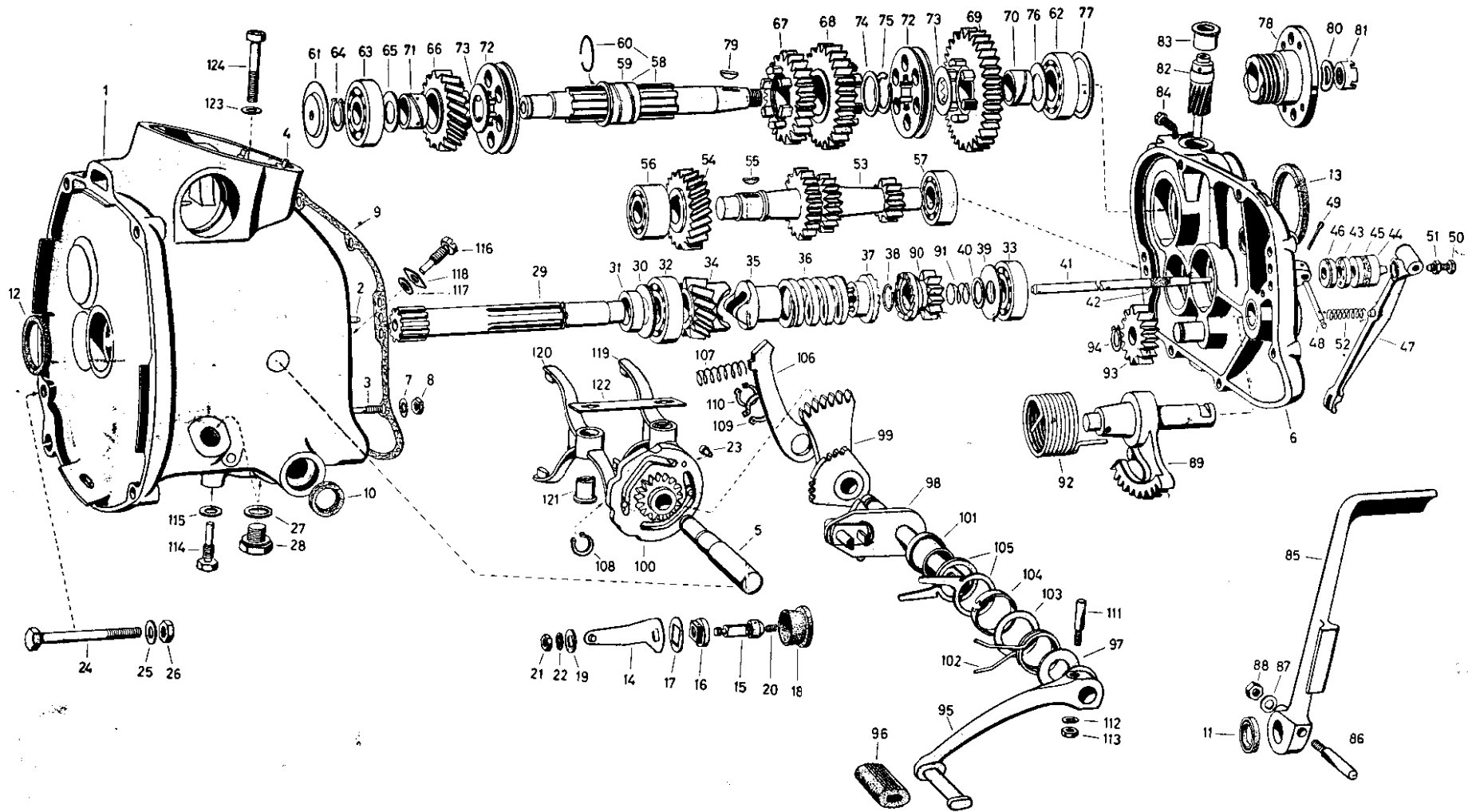
Table 4

A. R. C. W.  
Transmission

# 10 = Transmission

R 50 · R 50 S · R 60 · R 69 S

Table 4



Ordering No.	Call-out No.	Description of Part	Qty.				
			R 50 60	R 50/2 60/2	R 50 S	R 69	R 69 S
<b>Transmission Housing</b>							
10 06 029	1	Transmission housing with .....	1	1	1	1	1
10 12 100	2	Locating pin .....	2	2	2	2	2
99 03 214	3	Stud M 6×25 Sn 4—5 cad. (E) .....	7	7	7	7	7
99 41 365	4	Locating pin 4×6 for air filter .....	1	1	—	1	—
10 06 142	5	Axle for cam plate .....	1	1	1	1	1
10 12 031	6	Cover for transmission housing .....	1	1	1	1	1
99 31 043	7	Flat washer 6.4 cad. ....	7	7	7	7	7
99 22 053	8	Hex. nut M 6—6 S cad. ....	7	7	7	7	7
10 06 280	9	Gasket between transmission housing and cover .....	1	1	1	1	1
10 06 120	10	Seal for shaft of gearshift foot lever .....	1	1	1	1	1
10 06 132	11	Seal for kickstarter shaft .....	1	1	1	1	1
30 38 510	12	Seal for drive shaft, front .....	1	1	1	1	1
10 06 178	13	Seal for drive shaft, rear .....	1	1	1	1	1
<b>Parts for electrical neutral indication</b>							
10 06 152	—	Electrical neutral indication, complete ....	1	1	1	1	1
10 06 154	14	Contact spring .....	1	1	1	1	1
10 06 158	15	Contact shaft .....	1	1	1	1	1
10 06 162	16	Insulating bushing .....	1	1	1	1	1
10 06 166	17	Insulating washer .....	1	1	1	1	1
10 06 174	18	Rubber plug .....	1	1	1	1	1
10 06 170	19	Flat washer .....	1	1	1	1	1
99 05 660	20	Set screw M 4×6×3—5 S .....	1	1	1	1	1
99 21 055	21	Hex. nut BM 6—6 S .....	1	1	1	1	1
99 36 135	22	Star washer J 6.4 .....	1	1	1	1	1
10 66 174	23	Contact rivet .....	1	1	1	1	1
<b>Transmission attachment on engine</b>							
99 12 551	24	Hex.-head screw M 8×75 G cad. ....	1	1	1	1	1
99 31 065	25	Flat washer .....	4	4	4	4	4
99 22 081	26	Hex. nut M 8—6 S cad. ....	3	3	3	3	3

Ordering No.	Call-out No.	Description of Part	Qty.					
			R 50 60	R 50/2 60/2	R 50 S	R 69	R 69 S	
		Oil Filler and Oil Drain Plugs on transmission						
99 63 242	27	Gasket C 14×20 steel-asbestos . . . . .	2	2	2	2	2	
00 07 104	28	Oil plug for intake and drain . . . . .	2	2	1	1	1	
00 07 106	28	Oil plug, 0.1 mm. oversize thread . . . . .	as req.	as req.	as req.	as req.	as req.	
00 07 108	28	Oil plug M 16×1.5 (Replacement for Part No. 00 07 106, when thread is damaged . . . . .	as req.	as req.	as req.	as req.	as req.	
00 07 161	28	Magnetic oil drain plug . . . . .	—	—	1	—	1	
00 07 160	28	Magnetic oil drain plug, 0.1 mm. oversize thread . . . . .	—	—	1	—	1	
00 07 162	28	Magnetic oil drain plug M 16×1.5 (Replace- ment for Part No. 00 07 160, when thread is damaged) . . . . .	—	—	1	—	1	
99 63 259	—	Gasket C 16×20 steel-asbestos (for oil plugs Part No. 00 07 108 and No. 00 07 162) . . . . .	as req.	as req.	as req.	as req.	as req.	
		<b>Primary Shaft</b>						
10 20 005	29	Primary shaft . . . . .	1	1	1	1	1	
10 20 136	30	Flat washer for primary shaft front . . . . .	1	1	1	1	1	
10 20 140	31	Bushing for primary shaft, front . . . . .	1	1	1	1	1	
99 81 219	32	Ball bearing 6204 C 3, front . . . . .	1	1	1	1	1	
99 81 408	33	Ball bearing 6302 C 3, rear . . . . .	1	1	1	1	1	
10 20 245	34	Drive gear . . . . .	1	1	1	1	1	
10 80 154	35	Coupling for drive gear . . . . .	1	1	1	1	1	
10 20 152	36	Spring for damper . . . . .	1	1	1	1	1	
10 20 160	37	Ratchet for kickstarter . . . . .	1	1	1	1	1	
10 20 148	38	Snap ring for kickstarter ratchet . . . . .	1	1	1	1	1	
10 20 210	39	Spacer for primary shaft, rear (thickness as required) . . . . .	1	1	1	1	1	
10 20 164	40	Thrust washer for primary shaft, rear . . . . .	1	1	1	1	1	
		<b>Clutch Operation</b>						
10 80 176	41	Thrust rod with felt ring and end piece . . . . .	1	1	1	1	1	
10 20 132	42	Felt ring . . . . .	1	1	1	1	1	

10 = Transmission Clutch Operation—Intermediary Shaft—Output Shaft Table 4

Ordering No.	Call-out No.	Description of Part	Qty.				
			R 50 60	R 50/2 60/2	R 50 S	R 69	R 69 S
10 20 104	43	Ball cage with 7 balls .....	1	1	1	1	1
10 80 150	44	Thrust piece .....	1	1	1	1	1
10 20 108	45	Seal ring for thrust piece .....	1	1	1	1	1
10 80 134	46	Thrust plate .....	1	1	1	1	1
10 80 166	47	Clutch lever .....	1	1	1	1	1
10 20 112	48	Pin for clutch .....	1	1	1	1	1
99 45 180	49	Cotter pin 3×28 cad. ....	1	1	1	1	1
10 20 116	50	Adjusting screw .....	1	1	1	1	1
99 21 056	51	Hex. nut BM 6—5 S cad. ....	1	1	1	1	1
10 80 122	52	Spring .....	1	1	1	1	1
<b>Intermediary Shaft</b>							
10 40 027	53	Intermediary shaft .....	1	—	—	—	—
10 40 028	53	Intermediary shaft .....	—	1	1	1	1
10 40 108	54	Spur gear for intermediary shaft, front ....	1	1	1	1	1
99 51 480	55	Woodruff key 5×6.5 for intermediary shaft, front .....	1	1	1	1	1
99 82 410	56	Taper bearing 3203 for intermediary shaft, front .....	1	1	1	1	1
99 81 214	57	Ball bearing 6203 C 3 .....	1	1	1	1	1
<b>Output Shaft</b>							
10 30 027	58	Output shaft with bushing and snap ring ..	1	1	1	1	1
10 30 262	59	Bushing for second and third .....	1	1	1	1	1
10 30 100	60	Snap ring .....	1	1	1	1	1
10 06 242	61	Oil retainer plate with jet to ball bearing, front .....	1	1	1	1	1
99 81 219	62	Ball bearing 6204 C 3 for output shaft, rear	1	1	1	1	1
99 81 416	63	Ball bearing 6303 C 3 for output shaft, front	1	1	1	1	1
99 34 090	64	Circlip 16×1 .....	1	1	1	1	1
10 20 102	65	Spacer for fourth speed gear .....	1	1	1	1	1
10 30 151	66	Spur gear for fourth .....	1	1	1	1	1
10 30 148	67	Spur gear for third <i>wide ratio</i> .....	1	—	—	—	—
10 30 149	67	Spur gear for third .....	—	1	1	1	1

Ordering No.	Call-out No.	Description of Part	Qty.				
			R 50 60	R 50/2 60/2	R 50 S	R 69	R 69 S
10 30 144	68	Spur gear for second <i>Wide ratio</i>	1	—	—	—	—
10 30 145	68	Spur gear for second .....	—	1	1	1	1
10 30 243	69	Spur gear for first speed .....	1	—	—	—	—
10 30 244	69	Spur gear for first speed .....	—	1	1	1	1
10 30 259	70	Bushing for first speed gear .....	1	1	1	1	1
10 30 266	71	Bushing for fourth speed gear .....	1	1	1	1	1
10 30 140	72	Coupling disc .....	2	2	2	2	2
10 40 104	73	Spacer for first and fourth speed gear ....	2	2	2	2	2
10 30 104	74	Spacer for second speed gear .....	1	1	1	1	1
10 30 108	75	Snap ring for second speed gear .....	1	1	1	1	1
10 30 112	76	Spacer for first speed gear .....	1	1	1	1	1
10 30 116	77	Shim for output shaft, rear (thickness as required) .....	1	1	1	1	1
10 30 296	78	Coupling flange on output shaft, rear .....	1	1	1	1	1
99 51 461	79	Woodruff key 4×6.5 .....	1	1	1	1	1
10 30 168	80	Spring washer .....	1	1	1	1	1
10 30 120	81	Castellated nut (round) .....	1	1	1	1	1
<b>Speedometer Take-Off</b>							
10 30 164	82	Worm gear .....	1	1	1	1	1
10 30 176	83	Bushing .....	1	1	1	1	1
10 30 174	84	Hex.-head screw .....	1	1	1	1	1
<b>Kickstarter</b>							
10 56 120	85	Kickstarter crank .....	1	1	1	1	1
10 56 124	86	Locking screw .....	1	1	1	1	1
99 31 065	87	Flat washer 8.4 cad. ....	1	1	1	1	1
99 22 081	88	Hex. nut M 8—6 S cad. ....	1	1	1	1	1
10 56 274	89	Kickstarter segment gear, with spring .....	1	1	1	1	1
10 56 104	90	Gear for kickstarter on primary shaft .....	1	1	1	1	1
10 56 116	91	Spring for kickstarter gear .....	1	1	1	1	1
10 56 112	92	Kickstarter return spring .....	1	1	1	1	1
10 56 108	93	Idler gear .....	1	1	1	1	1
99 34 080	94	Circlip 15×1 for idler gear .....	1	1	1	1	1

Ordering No.	Call-out No.	Description of Part	Qty.				
			R 50 60	R 50/2 60/2	R 50 S	R 69	R 69 S
<b>Gearshift Mechanism</b>							
10 66 244	95	Foot shift lever .....	1	1	1	1	1
10 66 178	96	Rubber pad for foot shift lever .....	1	1	1	1	1
10 66 116	97	Spacer (thickness as required) between transmission housing and foot shift lever ..	1	1	1	1	1
10 66 268	98	Selector lever, with foot shift spindle, stop pins, spacer bushing and swivel piece ....	1	1	1	1	1
10 66 274	99	Sector gear .....	1	1	1	1	1
10 66 248	100	Cam plate with gear .....	1	1	1	1	1
10 36 138	101	Spacer bushing .....	1	1	1	1	1
10 66 150	102	Return spring .....	1	1	1	1	1
10 66 134	103	Washer .....	1	1	1	1	1
10 66 146	104	Steel spring ring .....	1	1	1	1	1
10 66 142	105	Pawl .....	2	2	2	2	2
10 66 256	106	Ratchet plate .....	1	1	1	1	1
10 66 130	107	Spring for ratchet plate .....	1	1	1	1	1
99 34 060	108	Circlip 12×1 for came plate .....	1	1	1	1	1
99 34 120	109	Circlip 18×1.2, for sector gear .....	1	1	1	1	1
99 34 071	110	Circlip 14×1 for foot shift spindle, rear end	1	1	1	1	1
Attachment of foot shift lever on foot shift spindle (selector lever)							
10 66 102	111	Locking screw .....	1	1	1	1	1
99 31 043	112	Flat washer .....	1	1	1	1	1
99 22 053	113	Hex. nut M 6—6 S cad. ....	1	1	1	1	1
Limit screws on transmission housing							
10 66 278	114	Limit screw, below .....	1	1	1	1	1
10 66 286	115	Spacer (thickness as required) .....	1	1	1	1	1
10 66 282	116	Limit screw, above .....	1	1	1	1	1
10 66 154	117	Spacer (thickness as required) .....	1	1	1	1	1
10 66 290	118	Locking plate .....	1	1	1	1	1

Ordering No.	Call-out No.	Description of Part	Qty.					
			R 50 60	R 50/2 60/2	R 50 S	R 69	R 69 S	
		Shifting forks on transmission housing, top						
10 66 166	119	Shifting fork for first and second .....	1	1	1	1	1	
10 66 206	120	Shifting fork for third and fourth .....	1	1	1	1	1	
10 66 162	121	Bushing for shifting fork .....	2	2	2	2	2	
10 66 170	122	Retaining plate .....	1	1	1	1	1	
10 66 186	123	Flat washer for allenhead screw .....	2	2	2	2	2	
99 19 741	124	Allenhead screw M 8×45—8 G pha.black. ...	2	2	2	2	2	

- 4 -