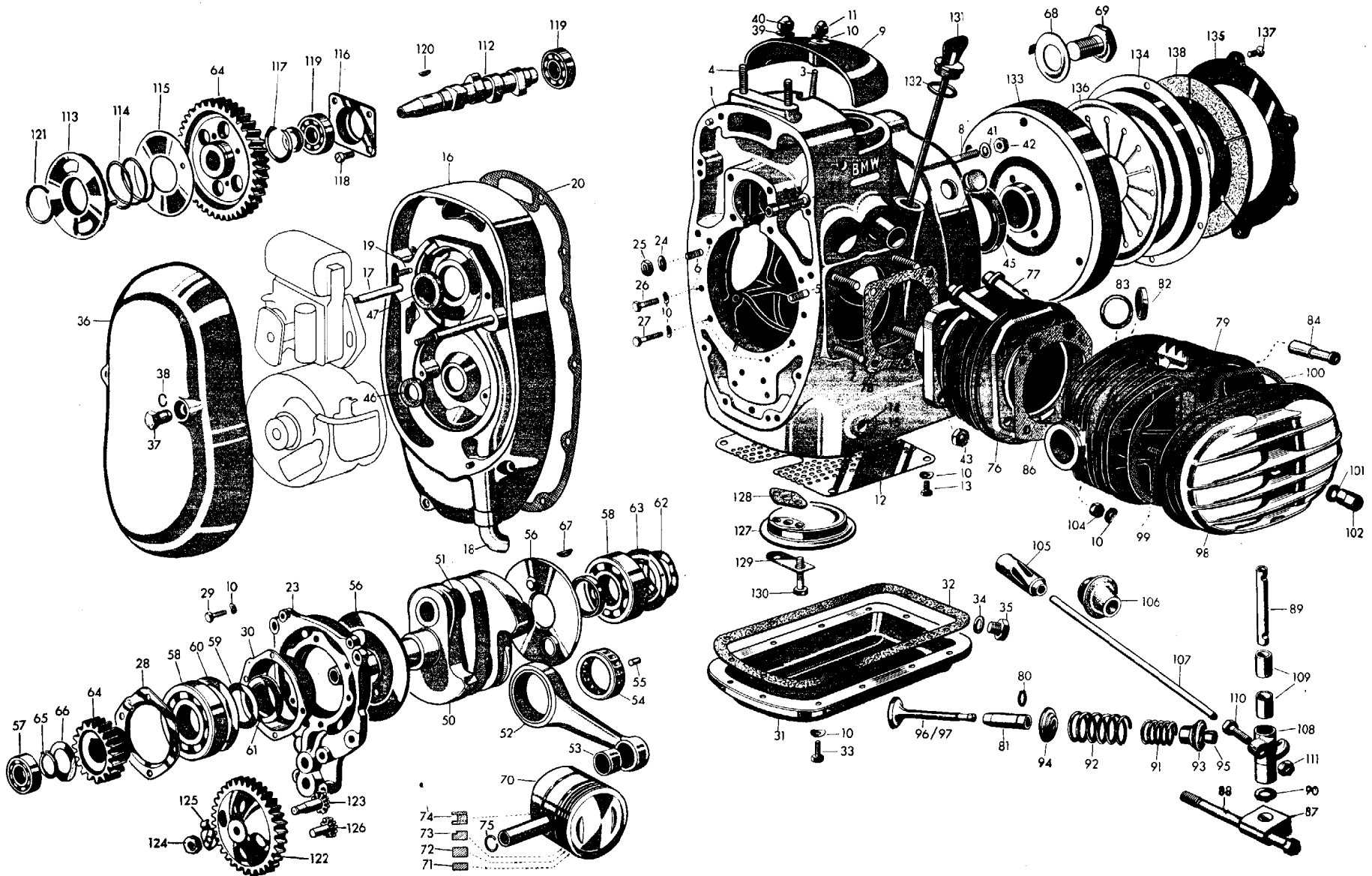


R 50 · R 60

00 = Engine



Ordering No.	Call-out No.	Description of Part	Qty.
Engine housing			
00 01 031	1	engine housing with studs, cover, bearing bushings and screen	1
00 01 188	2	valve guide bushing	4
00 01 180	3	stud (E) for cover, top	1
00 01 182	4	stud (E) for engine support, top	2
00 01 186	5	stud (E) for bearing housing, left	1
99 03 306	6	stud (E) M 8×18 Sn 4—8 G pho.black. for bearing housing, right	1
99 03 416	7	stud (E) M 10×22 Sn 4—8 G pho.black. for cylinder ..	8
99 03 325	8	stud (E) M 8×25 Sn 4—5 S cad. for transmission ..	3
00 01 184	—	stud (E) for rear bearing housing	5
00 02 152	9	upper cover	1
99 32 071	10	spring washer B 6	1
00 02 193	11	cap nut	1
00 01 162	—	rear bearing bushing for crankshaft	1
00 01 164	—	gasket	1
99 32 071	—	spring washer B 6	5
99 22 054	—	nut M 6—6 S pho.black.	5
00 07 153	12	screen	1
99 32 071	10	spring washer B 6	4
99 13 425	13	screw M 6×10—8 G pho.black.	4
00 01 158	14	plug	1
00 02 112	15	gasket	1
00 02 027	16	front bearing support casting with studs and breather pipe	1
00 01 177	17	stud (E) to mount cover	2
00 02 166	18	breather pipe	1
99 03 190	19	stud (E) M 6×16 Sn 4—5 S cad. for mounting breaker point resp. magneto ignition	2
00 02 172	20	gasket between front bearing support casting and engine housing	1
99 31 650	21	spacer, 6,4 cad.	12
99 19 937	22	allenhead screw M 6×40—8 G cad.	12
00 02 151	23	bearing support on engine housing	1

Ordering No.	Call-out No.	Description of Part	Qty.
99 32 090	24	spring washer B 8 cad.	2
99 22 082	25	nut M 8—6 S pho.black.	2
99 32 071	10	spring washer B 6	7
99 12 249	26	screw M 6×22—8 G pho.black.	4
99 12 270	27	screw M 6×28—8 G pho.black.	3
00 02 176	28	flange in oil line	1
99 32 071	10	spring washer B 6	4
99 12 235	29	screw M 6×18—8 G pho.black.	4
00 02 156	30	bearing housing for crankshaft bearing	1
00 07 029	31	oil pan	1
99 32 071	10	spring washer B 6	12
99 12 230	33	screw M 6×15—8 G pho.black.	12
99 63 242	34	gasket C 14×20 steel asbestos for oil plug	1
00 07 104	35	oil plug	1
00 07 106	35	oil plug, 0.1 mm oversize thread	1
00 02 179	36	front engine cover	1
00 02 194	37	nut for front engine cover	2
40 80 160	38	retainer ring	2
99 33 088	39	lock washer A 8 for engine support, top	2
50 96 152	40	cap nut	2
99 31 065	41	washer 8,4 cad. for transmission mounting	3
99 22 081	42	nut M 8—6 S cad. for transmission mounting	3
00 01 104	43	nut for cylinder mounting	8
00 01 106	44	rubber plug (for timing adjustment)	1
00 01 120	45	seal	1
00 02 196	46	seal	1
00 02 198	47	seal	1
99 31 650	—	spacer 6,4 cad. to mount magneto	2
99 22 053	—	nut M 6—6 S cad. to mount magneto	2
00 07 156	32	oil pan gasket	1
Crankshaft			
00 16 039	50	crankshaft with connecting rods, R 50	1
00 16 044	50	crankshaft with connecting rods, R 60	1
00 16 234	51	crankpin, R 50	2

Ordering No.	Call-out No.	Description of Part	Qty.
00 16 233	51	crankpin, R 60	2
00 17 033	52	connecting rod with bushing, R 50	2
00 17 031	52	connecting rod with bushing, R 60	2
00 17 150	53	wristpin, R 50 and R 60	2
00 16 128	54	roller bearing, R 50	2
00 17 158	54	roller bearing, R 60	2
00 16 160	55	roller 7 mm in dia., normal	28
00 16 162	55	roller 7 mm in dia., 0,01 mm, oversize	28
00 16 163	55	roller 7 mm in dia., 0,02 mm, oversize	28
00 16 164	55	roller 7 mm in dia., 0,03 mm, oversize	28
00 16 165	55	roller 7 mm in dia., 0,04 mm, oversize	28
00 16 166	55	roller 7 mm in dia., 0,05 mm, oversize	28
00 16 167	55	roller 7 mm in dia., 0,06 mm, oversize	28
00 16 216	56	oil splasher for R 50	2
00 16 217	56	oil splasher for R 60	2
99 00 106	—	screw M 6×10—5 S pho.black. for oil splasher	2
99 81 213	57	rollerbearing 6203, front	1
99 81 242	58	rollerbearing 6207 (main bearing), front and rear ..	2
00 16 240	59	spacer, inside, front	1
00 16 244	60	spacer, outside, front	1
00 16 212	61	spacer, front and rear	2
00 16 130	62	spring washer for rear crankshaft bearing	1
00 16 252	63	oil retainer ring for rear crankshaft bearing	1
00 16 252	64	gear	1
99 51 480	—	spring plate 5×6,5	} for gear at front end of crankshaft
99 34 171	65	retainer ring 25×1,2	
00 16 201	66	shim (thickness as required)	
00 16 132	67	woodruff key	} for flywheel
00 16 225	68	safety washer	
00 16 248	69	screw	
Piston for R 50			
00 12 090	70	piston with wristpin and rings	2
00 12 098	70	piston with wristpin and rings, 0,5 mm oversize	2
00 12 099	70	piston with wristpin and rings, 1 mm oversize	2

Ordering No.	Call-out No.	Description of Part	Qty.
00 14 120	71	compression ring (2 mm high), standard	2
00 14 121	71	compression ring (2 mm high), 0,5 mm oversize	2
00 14 126	71	compression ring (2 mm high), 1 mm oversize	2
00 14 118	72	compression ring (1,5 mm high), standard	2
00 14 128	72	compression ring (1,5 mm high), 0,5 mm oversize ..	2
00 14 129	72	compression ring (1,5 mm high), 1 mm oversize	2
00 14 159	73	oil ring, standard	2
00 14 160	73	oil ring, 0,5 mm oversize	2
00 14 161	73	oil ring, 1 mm oversize	2
00 14 122	74	scraper ring, standard	4
00 14 123	74	scraper ring, 0,5 mm oversize	4
00 14 124	74	scraper ring, 1 mm oversize	4
00 14 202	75	retainer ring	4
Piston for R 60			
00 12 191	70	piston, standard	2
00 12 190	70	piston with wristpin and rings	2
00 12 198	70	piston with wristpin and rings, 0,5 mm oversize	2
00 12 199 ✓	70	piston with wristpin and rings, 1 mm oversize	2
00 14 150 #	71	compression ring (2 mm high), standard	2
00 14 152	71	compression ring (2 mm high), 0,5 mm oversize	2
00 14 154	71	compression ring (2 mm high), 1 mm oversize	2
00 14 520 ✓	72	compression ring (1,5 mm high), standard	2
00 14 522	72	compression ring (1,5 mm high), 0,5 mm oversize ..	2
00 14 524	72	compression ring (1,5 mm high), 1 mm oversize	2
00 14 142 ✓	73	oil ring, standard	2
00 14 144	73	oil ring, 0,5 mm oversize	2
00 14 146	73	oil ring, 1 mm oversize	2
00 14 137	74	scraper ring, standard	4
00 14 139	74	scraper ring, 0,5 mm oversize	4
00 14 141	74	scraper ring, 1 mm oversize	4
00 14 202	75	retainer ring	4
Cylinder and cylinderhead			
00 10 027	76	cylinder with oil lines and valve covers for R 50	2

Ordering No.	Call-out No.	Description of Part	Qty.
00 10 031	76	cylinder with oil lines and valve covers for R 60	2
00 10 151	77	push rod cover for R 50	4
00 10 152	77	push rod cover for R 60	4
00 10 158	78	gasket between cylinder and engine	2
Cylinder head			
00 21 021	—	cylinderhead, right, with sparkplug threaded hole, valve guides, valve seats, etc., (on R 50 up to vehicle number 557705)	1
00 21 030	—	cylinderhead, right, with sparkplug threaded hole, valve guides, valve seats, etc., (on R 50 from vehicle number 557706)	1
00 21 028	79	cylinderhead, left, with sparkplug threaded hole, valve guides, valve seats, etc., (on R 50 from vehicle number 557705)	1
00 21 029	79	cylinderhead, left, with sparkplug threaded hole, valve guides, valve seats, etc., (on R 50 from vehicle number 557705)	1
00 21 116	80	retainer	4
00 21 104	81	valve guide bushing, standard	4
00 21 106	81	valve guide bushing, outside, 0,1 mm, oversize	4
00 21 107	81	valve guide bushing, outside, 0,2 mm, oversize	4
00 21 108	81	valve guide bushing, outside, 0,3 mm, oversize	4
00 21 504	81	valve guide bushing, standard (on R 50 from vehicle No. 557706)	4
00 21 506	81	valve guide bushing, outside, 0,1 mm, oversize (on R 50 from vehicle No. 557706)	4
00 21 507	81	valve guide bushing, outside, 0,2 mm, oversize (on R 50 from vehicle No. 557706)	4
00 21 508	81	valve guide bushing, outside, 0,3 mm, oversize (on R 50 from vehicle No. 557706)	4
00 21 114	82	valve seat, inlet	2
00 21 110	83	valve seat, exhaust	2
00 22 112	84	pipe	8
00 21 100	—	stud (E) to mount carburetor	4

Ordering No.	Call-out No.	Description of Part	Qty.
99 03 354	—	stud (E) M 8×38—5 S cad. to mount valve cover plate	2
00 21 140	86	cylinderhead gasket, subsequent ordering No. 00 22 118	2
00 34 110	87	bearing holder	8
00 21 136	88	bolt	8
00 34 102	89	bearing pin	4
00 34 112	90	spacer	4
00 26 110	91	valve spring, inside	4
00 26 118	92	valve spring, outside	4
00 26 132	93	spring retainer cup, top	4
00 26 532	93	spring retainer cup, top (on R 50 from vehicle No. 557706)	4
00 26 128	94	spring retainer cup, bottom	4
00 26 124	95	key (2 parts)	4
00 26 524	95	key (2 parts) (on R 50 from vehicle No. 557706)	4
00 26 101	96	inlet valve	2
00 26 501	96	inlet valve (on R 50 from vehicle No. 557706)	2
00 26 109	97	exhaust valve	2
00 26 509	97	exhaust valve (on R 50 from vehicle No. 557706)	2
00 23 025	98	valve cover plate with stud	2
99 03 838	99	stud (E) M 6×22 Sn 4—5 S cad.	4
00 23 150	100	gasket between cylinderhead and valve cover plate	2
99 32 091	101	spring washer B 8 pho. } to mount	2
00 23 160	102	cap nut } valve	2
99 32 071	10	spring washer B 6 } cover	8
99 22 053	104	nut M 6—6 S cad. } plate	4
99 32 091	—	spring washer B 8 } to mount carburetor	4
99 22 081	—	nut M 8—6 S cad. }	4
Valve mechanism			
00 33 102	105	cam rider, standard	4
00 33 104	105	cam rider, 0,04 mm, oversize	as req.
00 33 163	106	rubber grommet	4

Ordering No.	Call-out No.	Description of Part	Qty.
00 33 170	107	push rod for R 50	4
00 33 174	107	push rod for R 60	4
00 34 122	108	rocker arm for inlet, left, and exhaust, right	2
00 34 124	—	rocker arm for inlet, right, and exhaust, left	2
00 34 134	109	rocker arm bushing	8
00 34 176	110	adjustment screw	4
00 34 128	111	nut SW 12 for adjustment screw	4
00 31 027	112	camshaft with gear	1
00 31 168	113	breather timing plate with pin	1
00 31 152	114	coil spring	1
00 31 164	115	plate	1
00 30 150	116	bearing block	1
00 30 102	117	bearing retainer	1
00 30 104	118	screw	4
99 81 213	119	roller bearing 6203	2
99 51 461	120	woodruff key 4×6,5	1
99 33 451	121	retainer ring	1
Lubrication system			
00 52 154	122	gear	1
00 52 164	123	oil pump gear	1
00 52 167	124	nut	1
00 52 168	125	safety washer	1
00 52 171	126	oil pump gear	1
00 52 138	127	oil filter	1
00 52 126	128	gasket	1
00 52 130	129	plate	1
99 12 266	130	nut M 6×28—8 G pho.black.	2
00 09 126	131	dip stick with gasket	1
99 63 437	132	gasket C 26×32 steel-asbestos	1
Clutch			
00 68 032	133	flywheel	1
00 70 164	134	pressure plate	1

Ordering No.	Call-out No.	Description of Part	Qty.
00 70 152	135	ring for pressure plate	1
00 70 184	136	diaphragm spring	1
00 70 154	137	screw	6
00 70 027	138	clutch plate with lining and hubs	1
00 70 122	—	hub	1