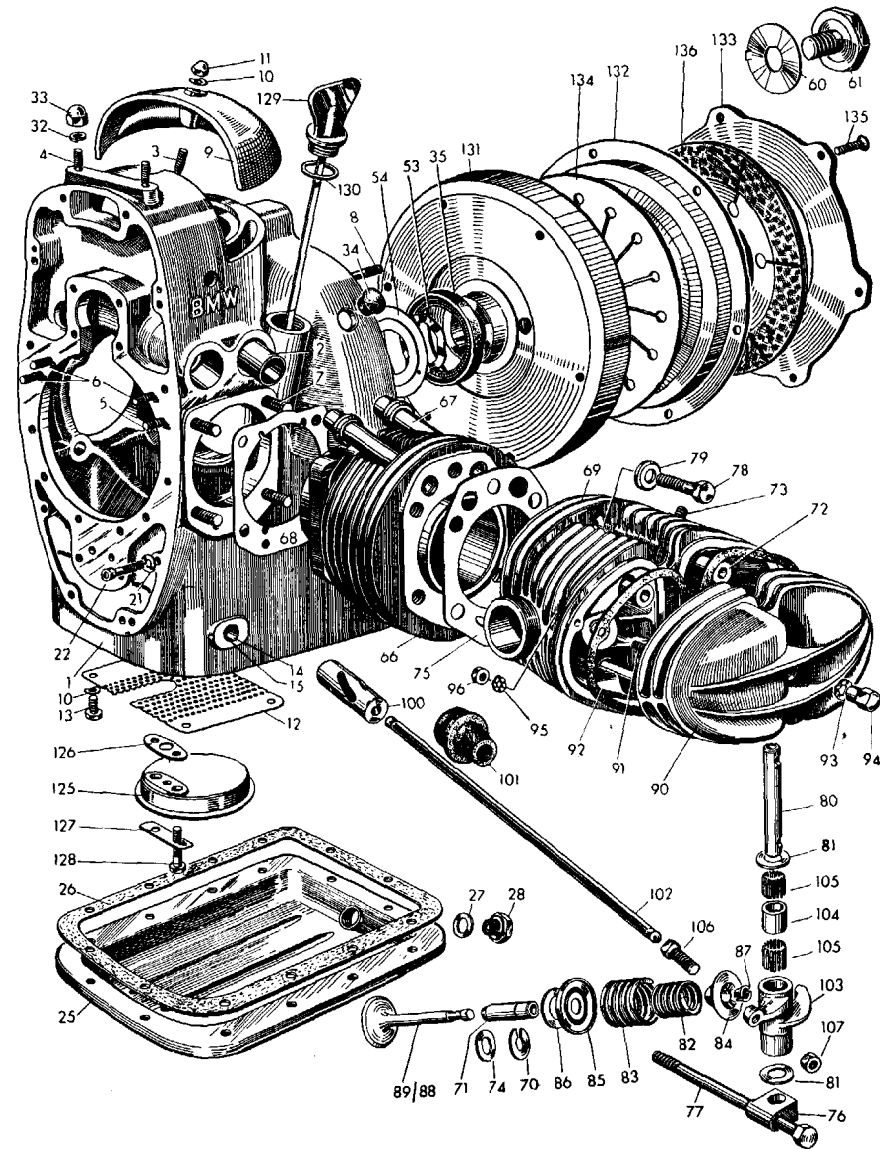
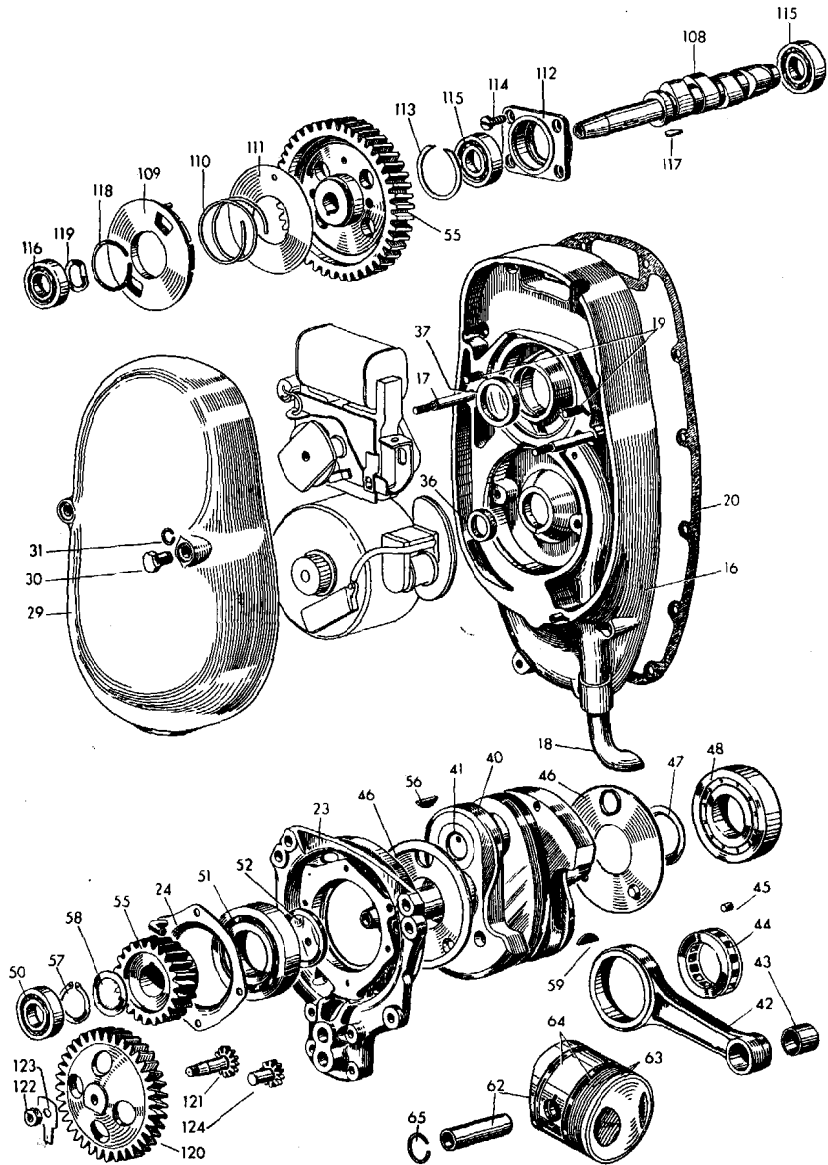


R  
C

R 69

00 = Engine



Ordering No.	Call-out No.	Description of Part	Qty.
		<b>Engine housing</b>	
00 01 033	1	engine housing with studs, cover, bearing bushings and screen .....	1
00 01 190	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 01 163	—	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 72 071	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 02 031	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 03 196	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 02 033	23	bearing support on engine housing .....	1

Ordering No.	Call-out No.	Description of Part	Qty.
99 32 090	—	spring washer B 8 .....	4
99 22 082	—	nut M 8—6 S pho.black. ....	4
99 32 071	—	spring washer B 6 .....	6
99 12 249	—	screw M 6×22—8 G pho.black. ....	2
99 12 270	—	screw M 6×8 G pho.black. ....	4
00 02 174	24	flange in oil line .....	1
99 32 071	—	spring washer B 6 .....	4
99 12 230	—	screw M 6×18—8 G pho.black. ....	4
00 07 029	25	oil pan .....	1
00 07 156	26	oil pan gasket .....	1
99 32 071	—	spring washer B 6 .....	12
99 12 230	—	screw M 6×15—8 G pho.black. ....	12
99 63 242	27	gasket C 14×20 steel-asbestos for oil plug .....	1
00 07 161	28	oil plug .....	1
00 07 160	—	oil plug, 0,1 mm, oversize thread .....	1
00 02 179	29	front engine cover .....	1
00 02 194	30	nut .....	2
40 80 160	31	retainer ring .....	2
99 33 088	32	lock washer A 8 for engine support, top .....	2
50 96 152	33	cap nut .....	2
99 31 065	—	washer 8,4 cad. for transmission mounting .....	3
99 22 081	—	nut M 8—6 S cad. for transmission mounting .....	3
00 01 104	—	nut for cylinder mounting .....	8
00 01 106	34	rubber plug (for timing adjustment) .....	1
00 01 120	35	seal .....	1
00 02 196	36	seal .....	1
00 02 199	37	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
<b>Crankshaft</b>			
00 16 035	40	crankshaft with connecting rods .....	1
00 16 231	41	crankpin .....	2
00 17 031	42	connecting rod with bushing .....	2
00 17 150	43	wristpin .....	2

Ordering No.	Call-out No.	Description of Part	Qty.
00 17 158	44	rollerbearing .....	2
00 16 160	45	roller 7 mm dia., standard .....	28
00 16 162	45	roller 7 mm dia., oversize 0.01 mm .....	28
00 16 143	45	roller 7 mm dia., oversize 0.02 mm .....	28
00 16 144	45	roller 7 mm dia., oversize 0.03 mm .....	28
00 16 165	45	roller 7 mm dia., oversize 0.04 mm .....	28
00 16 138	45	roller 7 mm dia., oversize 0.05 mm .....	28
00 16 167	45	roller 7 mm dia., oversize 0.06 mm .....	28
00 16 246	—	end seal for crankpin .....	2
00 16 218	46	oil splasher .....	2
99 00 106	—	screw M 6×10—5 S pho.black. for oil splasher ....	4
00 16 266	47	spacer, rear .....	1
00 16 272	48	main bearing, rear .....	1
99 81 213	50	rollerbearing 6203, front .....	1
99 81 245	51	rollerbearing 6207, MN 20 (main bearing), front ....	1
00 16 268	52	spacer .....	1
00 16 130	53	spring washer for rear crankshaft bearing .....	1
00 16 252	54	oil retainer ring for rear crankshaft bearing .....	1
00 16 259	55	gear .....	1
99 51 480	56	spring plate 5×6.5 .....	1
99 34 171	57	retainer ring 25×1.2 .....	1
00 16 201	58	shim (thickness as required) } crankshaft	1
00 16 132	59	woodruff key } for flywheel	1
00 16 225	60	safety washer } for flywheel	1
00 16 248	61	screw .....	1
00 12 080	62	piston with wristpin and rings .....	2
00 12 088	62	piston with wristpin and rings, oversize, 0,5 mm ....	2
00 12 089	62	piston with wristpin and rings, oversize, 1 mm ....	2
00 14 150	63	compression ring, standard .....	6
00 14 152	63	compression ring, oversize, 0.5 mm .....	6
00 14 154	63	compression ring, oversize, 1 mm .....	6
00 14 137	64	oil ring, standard .....	4
00 14 139	64	oil ring, oversize, 0.5 mm .....	4
00 14 141	64	oil ring, oversize, 1 mm .....	4
00 14 202	65	retainer ring .....	4

Ordering No.	Call-out No.	Description of Part	Qty.
<b>Cylinder and cylinder head</b>			
00 10 035	66	cylinder with oil lines and valve push rod covers ..	2
00 10 153	67	push rod cover .....	4
00 10 156	68	gasket between cylinder and engine .....	2
00 21 031	—	cylinder head, right, with sparkplug threaded hole, valve guides, valve seats, etc. ....	1
00 21 032	69	cylinder head, left, with sparkplug threaded hole, valve guides, valve seats, etc. ....	1
00 21 118	70	retainer .....	4
00 21 103	71	valve guide bushing, standard .....	4
00 21 105	71	valve guide bushing, outside, oversize, 0,1 mm ....	4
00 21 122	—	valve seat, inlet .....	2
00 21 123	—	valve seat, exhaust .....	2
00 22 114	72	pipe .....	8
00 21 100	73	stud (E) to mount carburetor .....	4
99 03 372	—	stud (E) M 8×50 Sn 4—5 S cad. to mount valve cover plate .....	2
00 21 119	74	spacer .....	4
00 22 168	75	cylinder head gasket .....	2
00 34 158	76	bearing holder .....	8
00 22 109	77	screw .....	8
00 22 108	78	bolt .....	4
00 22 156	79	washer .....	4
00 34 180	80	pivot pin .....	4
00 34 162	81	spacer .....	8
00 26 160	82	valve spring, inside .....	4
00 26 164	83	valve spring, outside .....	4
00 26 182	84	spring retainer cup, top .....	4
00 26 178	85	spring retainer cup, bottom .....	4
00 26 186	86	spacer .....	4
00 26 174	87	key (2 parts) .....	4
00 26 150	88	valve, inlet .....	2
00 26 158	89	valve, exhaust .....	2
00 23 027	90	valve cover plate with stud .....	2
99 03 838	91	stud (E) M 6×22 Sn 4 —5 S cad. ....	4

Ordering No.	Call-out No.	Description of Part	Qty.
00 23 152	92	gasket between cylinder head and valve cover plate .....	2
99 32 091	93	spring washer B 8	2
00 23 160	94	cap nut .....	2
99 32 071	95	spring washer B 6	8
99 22 053	96	nut M 6—6 S cad. .	4
99 31 655	—	spring washer 8,4 cad. to mount carburetor on cylinder head .....	4
99 22 081	—	nut M 8—6 S cad. to mount carburetor on cylinder head .....	4
<b>Valve Mechanism</b>			
00 33 150	100	valve lifter, standard .....	4
00 33 152	100	valve lifter, oversize, 0.04 mm .....	as req.
00 33 163	101	rubber grommet .....	4
00 33 004	102	push rod .....	4
00 34 172	103	rocker arm for inlet, left, and exhaust, right .....	2
00 34 174	—	rocker arm for inlet, right, and exhaust, left .....	2
00 34 186	104	bushing .....	4
00 34 190	105	needle for bearing 3×15.8 .....	136
00 34 178	106	adjustment screw .....	4
00 34 128	107	nut for adjustment screw .....	4
00 31 029	108	camshaft .....	1
00 31 168	109	breather plate with pin .....	1
00 31 152	110	coil spring .....	1
00 31 164	111	plate .....	1
00 30 150	112	bearing block .....	1
00 30 102	113	bearing retainer ring .....	1
00 30 104	114	screw .....	4
99 81 213	115	rollerbearing 6203 .....	2
99 81 041	116	rollerbearing 6003 X, front .....	1
99 51 461	117	woodruff key 4×6,5 .....	1
99 33 451	118	retainer ring .....	1
00 31 172	119	spring washer .....	1

Ordering No.	Call-out No.	Description of Part	Qty.
<b>Lubrication system</b>			
00 52 154	120	gear .....	1
00 52 164	121	oil pump gear .....	1
00 52 167	122	nut .....	1
00 52 168	123	safety washer .....	1
00 52 171	124	oil pump gear .....	1
00 52 138	125	oil filter for R 50 .....	1
00 52 139	125	oil filter for R 60 .....	1
00 52 126	126	gasket .....	1
00 52 130	127	safety washer .....	1
99 12 266	128	nut M 6×28—8 G pho.black. ....	2
00 09 126	129	dip stick .....	1
99 63 437	130	gasket C 26×32 steel-asbestos .....	1
<b>Clutch</b>			
00 68 033	131	flywheel .....	1
00 70 164	132	pressure plate .....	1
00 07 152	133	ring for pressure plate .....	1
00 70 184	134	diaphragm spring .....	1
00 70 154	135	screw .....	6
00 70 027	136	clutch plate with lining and hub .....	1
00 70 122	—	hub .....	1