

MAIN GROUP



ENGINE

	Illustration
01 Crankcase, Cylinders, Cylinder head	1
05 Crankshaft, Connecting rod, Crankshaft bearing	2
07 Piston	2
09 Camshaft, Valves	3
15 Oil pump, Oil filler	4
17 Oil cooler	4
19 Air cooling	5
99 Engine mounting, rear	5
27 Fuel pump, Fuel line	6
29 Carburetor 32 PHN	7
29 Intake manifold	8
41 Clutch	9
99 Engine mounting, rear	—

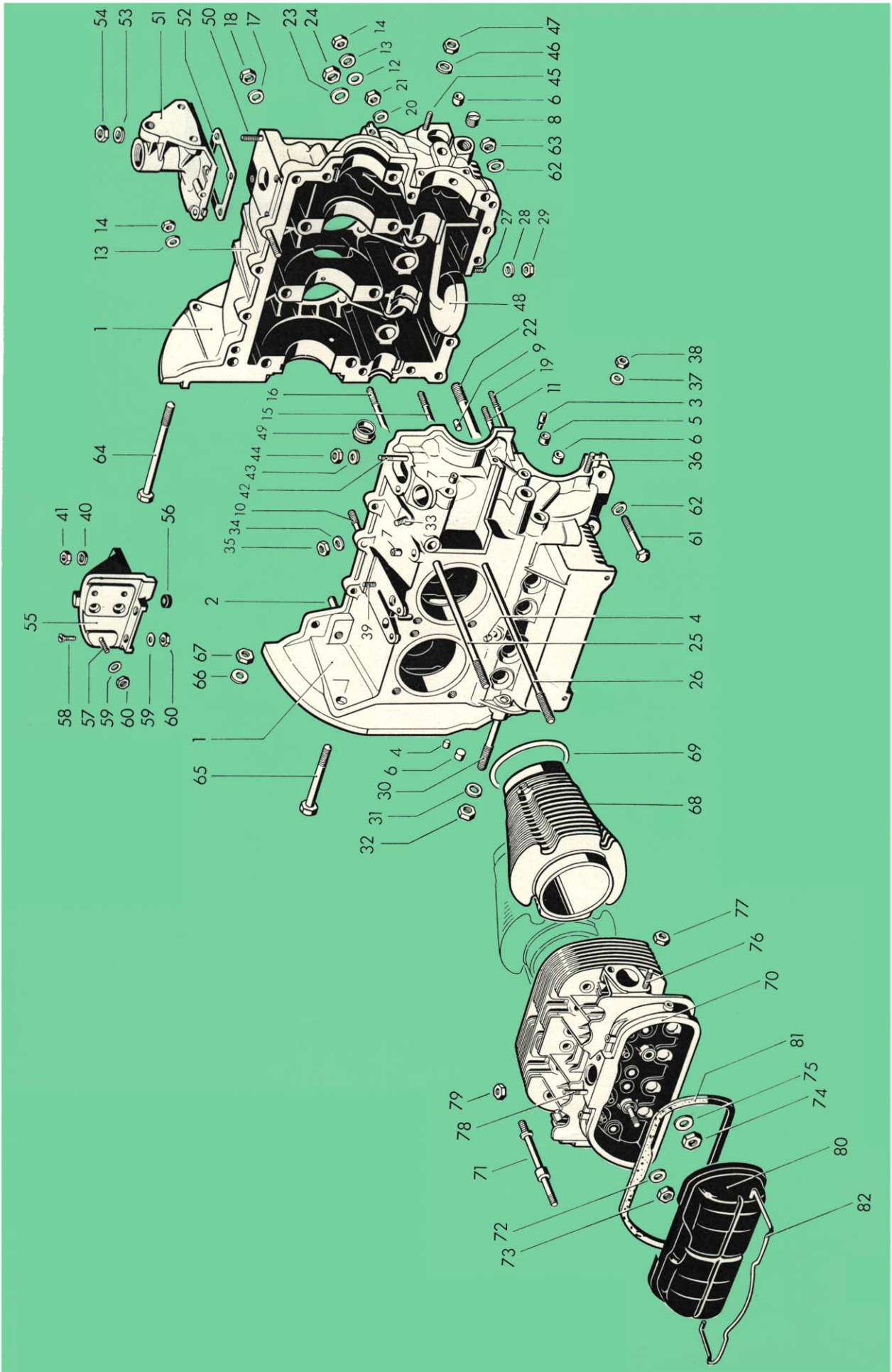


Illustration 1

Key No.	Part No.	Description	Quantity	Type and model
ENGINE				
7/62	-	311 100 021 A Engine assy., with generator, clutch and exhaust muffler (in the case of types 341, 343, 345 replace 311 115 303 B by 341 115 303 A)	1	
CRANKCASE				
7/62	1	311 101 025 A Crankcase (up to Engine No. August 1962 the stud for the oil cooler is to be replaced by N 14 451 2)	1	
	2	113 101 111 Dowel pin 8×25 – Crankcase jointing faces	2	
	3	113 101 112 Plug – Oil passage	1	
	4	113 101 115 Plug 6.5 mm dia. – Crankcase	×	
	5	113 101 118 C Plug 12.3 mm dia. – Crankcase	×	
	6	113 101 118 E Plug 14.4 mm dia. – Crankcase	×	
	7	111 101 119 Plug 8.45 mm dia. – Crankcase	×	
	8	N 13 856 1 Plug, slotted M 16×1.5 DIN 71 022	1	
	9	111 101 123 Dowel pin – Crankshaft bearing	5	
	10	N 14 396 1 Stud AM 8 A×50 – Crankcase	7	
	11	N 14 397 1 Stud AM 8 A×56 – Crankcase	2	
	12	N 13 830 1 Sealing washer A 8×14 DIN 7603 – Stud	2	
	13	N 12 228 2 Spring washer B 8 DIN 137 galvanized	9	
	14	N 11 008 3 Nut, hex. M 8 DIN 934 galvanized	9	
	15	N 14 419 1 Stud AM 8 A×112 – Crankcase	1	
	16	N 14 444 1 Stud AM 8 A×125 – Crankcase	1	
	17	N 12 228 2 Spring washer B 8 DIN 137 galvanized	2	

Key No.	Part No.	Description	Quantity	Type and model	
18	N 11 008 3	Nut, hex. M 8 DIN 934 galvanized	2		
19	N 14 399 1	Stud AM 8 A×97 – Crankcase	1		
20	N 12 228 2	Spring washer B 8 DIN 137 galvanized	1		
21	N 11 008 3	Nut, hex. M 8 DIN 934 galvanized	1		
–	N 14 500 1	Stud AM 12×1.5 A×141 – Crankcase	6		
		up to Engine No. 31 062			
5/62	22	N 14 501 1	Stud AM 12×1.5 A×156 – Crankcase	6	
		from Engine No. 31 063			
23	113 101 129	Washer 12.2×22	6		
24	113 101 131	Nut, hex. M 12×1.5	6		
25	N 14 505 1	Stud AM 10 A×188 – Cylinder head	8		
26	N 14 506 1	Stud AM 10 A×240 – Cylinder head	8		
5/62	27	N 14 451 2	Stud AM 6 A×23 – Oil strainer cover	6	
28	N 12 226 2	Spring washer B 6 DIN 137 galvanized	6		
29	N 11 006 2	Nut, hex. M 6 DIN 934 galvanized	6		
30	N 14 411 1	Stud AM 10 A×82 – Engine mounting	2		
31	N 12 230 2	Spring washer B 10 DIN 137 galvanized	2		
32	N 11 010 2	Nut, hex. M 10 DIN 934 galvanized	2		
33	N 14 398 1	Stud AM 8 A×27 – Distributor	1		
34	N 12 228 2	Spring washer B 8 DIN 137 galvanized	1		
35	N 11 008 3	Nut, hex. M 8 DIN 934 galvanized	1		
36	N 14 401 1	Stud AM 6 A×31 – Oil pump	4		
37	N 11 652 1	Washer 7 galvanized	4		

Key No.	Part No.	Description	Quantity	Type and model
	38	N 11 006 2 Nut, hex. M 6 DIN 934 galvanized	4	
7/62	39	N 14 451 2 Stud AM 6 A×23 – Oil cooler bracket up to Engine No. 65 745	1	
7/62	–	N 14 539 1 Stud AM 6 A×56 – Oil cooler from Engine No. 65 746	1	
11/63	–	N 11 524 1 Washer A 6.4 DIN 125	1	
	40	N 12 226 2 Spring washer B 6 DIN 137 galvanized	1	
	41	N 11 006 2 Nut, hex. M 6 DIN 934 galvanized	1	
	42	N 14 396 1 Stud AM 8 A×50 – Fuel pump	2	
	43	N 12 228 2 Spring washer B 8 DIN 137 galvanized	2	
	44	N 11 008 3 Nut, hex. M 8 DIN 934 galvanized	2	
	45	N 14 455 1 Stud AM 8 A×31 – Oil filler pipe	2	
	46	N 12 228 2 Spring washer B 8 DIN 137 galvanized	2	
	47	N 11 008 3 Nut, hex. M 8 DIN 934 galvanized	2	
	48	311 101 149 Oil pipe with dome	1	
	49	113 101 157 End plug – Camshaft	1	
	50	N 14 443 1 Stud AM 8 A×38 – Breather support	4	
	51	311 101 161 A Breather support	1	
	52	113 101 219 Gasket – Breather support	1	
	53	N 12 228 2 Spring washer B 8 DIN 137 galvanized	4	
	54	N 11 008 3 Nut, hex. M 8 DIN 934 galvanized	4	
	55	311 101 171 Bracket – Oil cooler up to Engine No. 65 745	1	
	56	111 117 151 Seal – Bracket up to Engine No. 65 745	2	
7/62	57	N 14 451 2 Stud AM 6 A×23 – Oil cooler up to Engine No. 65 745	1	

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Type 3 Supplement 11/63

Key No.	Part No.	Description	Quantity	Type and model
58	N 11 758 1	Screw, countersunk head AM 6×22 DIN 87 up to Engine No. 65 745	2	
59	N 12 226 2	Spring washer B 6 DIN 137 galvanized up to Engine No. 65 745	3	
60	N 11 006 2	Nut, hex. M 6 DIN 934 galvanized up to Engine No. 65 745	3	
CRANKCASE SECURING PARTS				
61	N 10 350 1	Bolt, hex. head BM 8×50 DIN 931	2	
-	N 10 351 1	Bolt, hex. head BM 8×52 DIN 931	1	
62	N 12 228 2	Spring washer B 8 DIN 137 galvanized	6	
63	N 11 008 3	Nut, hex. M 8 DIN 934 galvanized	3	
ENGINE TO TRANSMISSION SECURING PARTS				
64	N 10 500 1	Bolt, hex. head M 10×110 DIN 931	1	
65	N 10 470 1	Bolt, hex. head M 10×70 DIN 931	1	
66	N 12 230 2	Spring washer B 10 DIN 137 galvanized	2	
67	N 11 010 2	Nut, hex. M 10 DIN 934 galvanized	2	
CYLINDERS				
68	311 101 301AB	Cylinder 83 mm dia. (blue)	1	
-	311 101 301AR	Cylinder 83 mm dia. (pink)	1	
-	311 101 301AG	Cylinder 83 mm dia. (green)	1	
		up to Engine No. 65 745		
7/62	-	311 101 301BB	Cylinder 83 mm dia. (blue)	1
7/62	-	311 101 301BR	Cylinder 83 mm dia. (pink)	1
7/62	-	311 101 301BG	Cylinder 83 mm dia. (green)	1
		from Engine No. 65 746		
69	311 101 341	Gasket 90×99 between crankcase and cylinder ...	4	

Key No.	Part No.	Description	Quantity	Type and model
CYLINDER HEADS				
70	311 101 351	Cylinder head up to Engine No. 65 745	2	
7/62	- 311 101 351 A	Cylinder head from Engine No. 65 745 up to June 1963	2	
15/63	- 311 101 351 B	Cylinder head from Engine No. 65 746 For installation in Engines from Engine No. 65 746 up to June 1963 the following parts are additionally required: 311 109 301 B Push rod 113 109 427 A Bearing support – Rocker shaft 311 109 443 A Rocker arm	2	
7/62	- 311 101 381	Shim 0.4 mm – Cylinder head up to Engine No. 65 745	x	
13/63	- 311 101 381 A	Shim 0.4 mm – Cylinder head from Engine No. 65 746	x	
7/62	- 311 101 385	Shim 0.8 mm – Cylinder head up to Engine No. 65 745	x	
13/63	- 311 101 385 A	Shim 0.8 mm – Cylinder head from Engine No. 65 746	x	
7/62	- 311 101 387	Shim 1.0 mm – Cylinder head up to Engine No. 65 745	x	
13/63	- 311 101 387 A	Shim 1.0 mm – Cylinder head from Engine No. 65 746	x	
7/62	- 311 101 389	Shim 1.5 mm – Cylinder head up to Engine No. 65 745	x	
13/63	- 311 101 389 A	Shim 1.5 mm – Cylinder head from Engine No. 65 746	x	
71	113 101 397 A	Stud – Rocker shaft (shoulder 12.5 mm dia. for gasket)	4	
72	N 12 229 1	Spring washer A 8 DIN 137 galvanized	4	
73	N 11 008 5	Nut, hex. M 8 DIN 934	4	
74	111 101 457 B	Nut, hex. M 10 – Cylinder head	16	
75	N 11 528 1	Washer B 10.5 DIN 125	16	

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Type 3 Supplement 15/63

Key No.	Part No.	Description	Quantity	Type and model
13/63	76	N 14 443 1 Stud AM 8 A×38 – Exhaust flange	8	
1/61	77	311 101 463 Nut, hex. M 8 (self locking)	8	
	78	N 14 401 1 Stud AM 6 A×31 – Intake manifold	4	
	79	N 11 006 2 Nut, hex. M 6 DIN 934 galvanized	4	
	80	113 101 475 A Cylinder head cover	2	
		(with straight sealing surface)		
	81	113 101 481 A Gasket – Cylinder head cover	2	
	82	311 101 487 Retaining spring – Cylinder head cover	2	