

LIST OF SPARES

No. 522.6 E/5

SACHS DIESEL 500

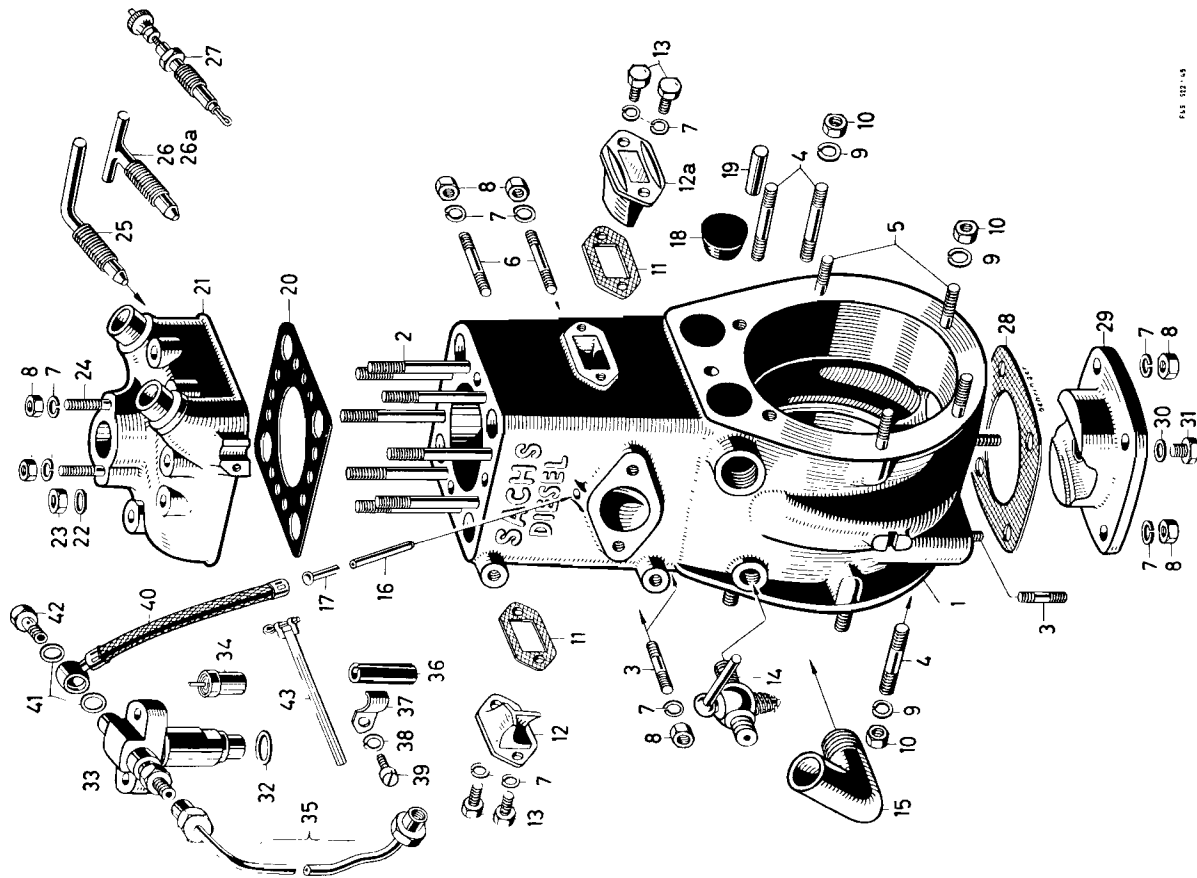


FICHTEL & SACHS AG, 8720 SCHWEINFURT

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Cylinder and Crankcase, Injection Nozzle

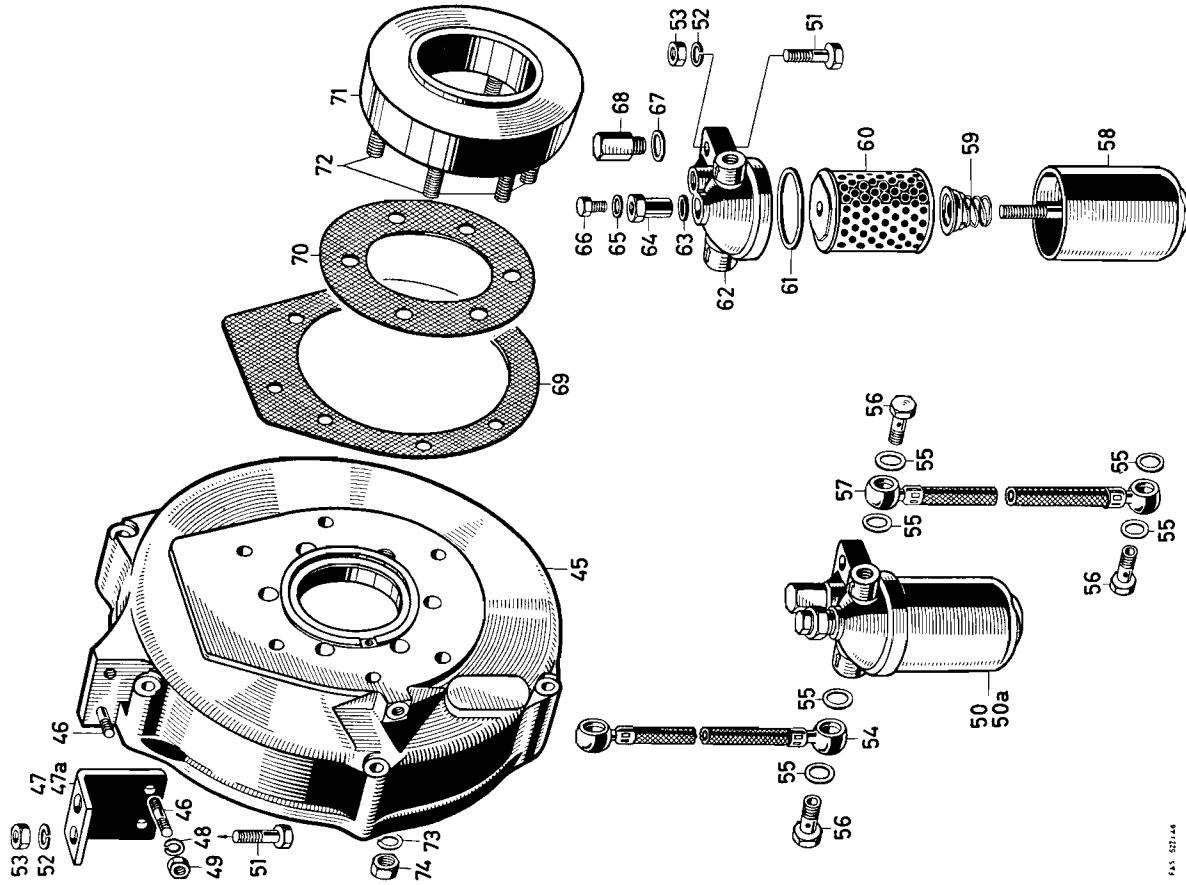


154 102-58

PLATE 1

Cylinder and Crankcase, Injection Nozzle

Illusfr. No.	Part No.	Designation	Num-ber off	Weight per unit in gr.
1	1986 015 005	Cylinder and crankcase assembly, version: flange-mounted engine	1	19600
2	1986 015 006	Cylinder and crankcase assembly, version: stationary engine	1	19600
3	1940 004 100	Stud M 10 x 75 for securing cylinder head	8	51
	1940 127 001	Stud M 8 x 16	6	9.5
4	1940 005 101	4 x for crankcase cover 2 x for securing filter Stud M 10 x 32 for unit head and end shield		
5	1940 006 101	Stud M 10 x 25 for securing unit head	8	24
6	0940 017 111	Stud M 8 x 20 for silencer	4	20
7	0245 023 003	Spring washer for M 8	4	11.5
8	0242 020 000	Nut M 8	20	1.2
9	0245 023 004	Spring washer for M 10	16	5
10	0242 009 000	Nut M 10	12	2
11	1950 009 000	Gasket	12	11
12	1911 004 000	Closer, left-hand	2	1
12a	1911 003 000	Closer, right-hand	1	62
13	1940 017 000	Hexagon head screw M 8 x 15	1	62
14	1972 000 001	Drain cock	4	12
15	1973 001 000	Discharge elbow	2	93
16	0972 032 005	Connecting tube (flange-mounted engine)	2	55
17	0249 046 000	Grooved dowel (stationary engine)	1	3
18	1950 017 000	Rubber plug	1	3
19	1949 003 000	Dowel pin for unit head	2	10.5
20	1950 002 000	Gasket	1	16
21	1986 017 001	Cylinder head with two studs	1	20
22	0944 043 000	Washer	1	4500
23	1942 008 000	Nut M 10 for cylinder head	8	2.5
24	1940 016 101	Stud M 8 x 40 for nozzle holder	8	14.5
25	1972 010 001	Fuse holder (flange-mounted engine)	2	18
26	1972 010 005	Fuse holder (electric starter)	1	87
26a	1986 131 100	Fuse holder (Holder)	1	92
27	1999 004 101	Incandescent plug M 14 x 2	1	71
28	1950 008 000	Gasket (for crankcase cover)	1	3
29	1911 000 000	Crankcase cover	1	175
30	0950 014 001	Sealing ring	1	1
31	0940 025 000	Screw plug M 8 x 9	1	13
32	1950 022 000	Seal	1	3
33	1986 001 005	Nozzle holder with pintle nozzle	1	355
34	1986 004 000	Pintle nozzle D N 12 SD (for item 33)	1	33
35	1986 009 000	Fuel pipe (from nozzle holder to fuel injection pump)	1	121
36	1960 003 000	Protective tubing	1	5
37	1951 000 000	Fixing clip	1	3.5
38	0245 023 002	Spring washer for M 6	1	0.6
39	0941 057 000	Cheese head screw M 6 x 10	1	4.5
40	1986 019 000	Leak pipe, length 290 mm (from nozzle holder to induction port)	1	52
41	1950 024 000	Sealing ring	2	1
42	1940 011 000	Banjo plug M 8 x 1	1	8
43	0990 083 000	Tube fastener	1	3.5

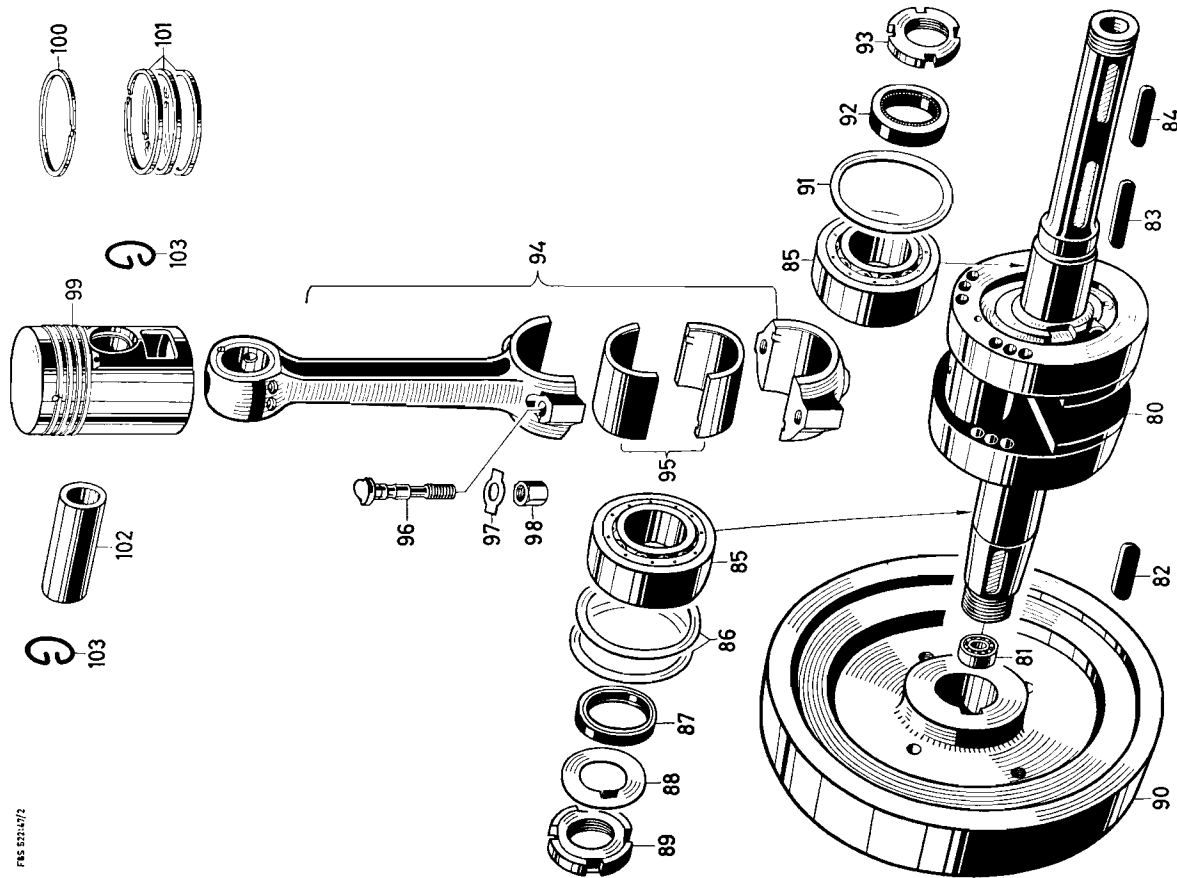


F&S 527-44

Illustr. No.	Part No.	Designation	Num-ber off	Weight per unit in gr.
45	1986 028 000	End shield with 2 studs	1	3640
	1911 008 005	End shield (Hummel)	1	
46	1911 008 006	End shield (Bungartz)	1	9.5
47	1940 127 001	Stud M 8 x 16	2	
	1951 008 000	Fixing bracket for filter (flange-mounted engine)	1	115
47a	1951 004 000	Fixing bracket for filter (stationary engine)	1	120
48	0245 023 003	Spring washer for M 8	2	1.2
49	0242 020 000	Nut M 8	2	6.5
50	1986 012 001	Fuel filter (flange-mounted engine)	1	450
50a	1986 012 000	Fuel filter (stationary engine)	1	450
51	0941 052 000	Hexagon head bolt M 10 x 30	2	29
52	0245 023 004	Spring washer for M 10	2	2
53	0242 009 000	Nut M 10	2	11
54	1986 030 001	Fuel pipe from tank to filter, with banjo at one end rotated 90 degrees in relation to banjo at other end (state the length)	1	
55	0250 073 000	Seal	4	1
56	1940 012 001	Banjo plug M 14 x 1.5	2	8
57	1986 030 020	Fuel pipe from filter to pump, with banjo at one end rotated 45 degrees in relation to banjo at other end (state the length)	1	190
58	*09 1986 036 000	Filter bowl (Knecht)	1	10
59	*09 1986 036 001	Filter bowl (Mann & Hummel)	1	38
60	*09 1986 035 005	Mounting for felt ring (Knecht)	1	3
61	*09 1986 035 006	Mounting for felt ring (Mann & Hummel)	1	142
62	*09 1986 012 008	Filter element	1	2
63	*09 1950 032 000	Sealing ring (Knecht)	1	21
64	*09 1950 032 001	Sealing ring (Mann & Hummel)	1	1
65	*09 1986 037 000	Filter cover (Knecht)	1	10
66	*09 1986 037 001	Filter cover (Mann & Hummel)	1	0.5
67	*09 1950 030 000	Seal	1	48
68	*09 1940 025 000	Screw plug	1	1
69	*09 1950 029 000	Seal (Knecht)	1	2.5
70	*09 1950 029 001	Seal (Mann & Hummel)	1	2070
71	*09 1940 019 000	Hexagon head screw (Knecht)	1	33
72	*09 1940 019 001	Hexagon head screw (Mann & Hummel)	1	3
73	*09 1950 031 000	Seal	6	12
74	*09 1940 026 000	Air vent screw for item 50a	1	
	*09 1940 103 000	Air vent screw M 14 for item 50	1	
	*09 1950 014 000	Gasket	1	
	*09 1950 038 000	Gasket	1	
	*09 1986 018 000	Bearing flange with 6 studs	1	
	*09 1940 007 101	Stud M 12 x 32	6	
	*0245 023 005	Spring washer for M 12	6	
	*0942 025 100	Nut M 12	6	

* For replacement of items 58, 59, 61, 62, 65 and 66 only the items belonging to the original air cleaner (version **Knecht** or **Mann & Hummel**) are to be used.

FMS 531-472



Illustr. No.	Part No.	Designation	Num-ber off	Weight per unit in gr.
80	1986 014 006	Crankshaft assembly	1	8850
81	09 1932 005 001	Radial bearing 6002 Z (included in crankshaft assembly)	1	32
82	1946 002 000	Key 12 x 8 x 40 for flywheel	1	28
83	1946 001 000	Key 8 x 5 x 45 for cam and spiral gear	1	14
84	1946 000 000	Key 8 x 5 x 35 for starter dog	1	10
85	09 1932 000 006	Annular parallel-roller bearing	2	893
86	1944 004 000	Shim 0.2 mm	as requir.	4.5
	1944 004 001	Shim 0.3 mm		7
87	1950 006 000	Crankshaft sealing ring 45 x 62 x 12	1	32
88	1944 000 000	Lock washer	1	13
89	1942 002 000	Slotted nut M 40 x 1.5	11	135
90	1980 002 000	Flywheel (standard)	1	23900
	1987 013 000	Flywheel, version: centrifugal clutch, with electric starter	1	23750
	1980 005 000	Flywheel, version: with centrifugal clutch, without electric starter	1	23750
91	1944 004 005	Shim 0.8 mm	1	17.5
92	1950 005 000	Crankshaft sealing ring (in unit head)	1	44
93	1942 003 000	Slotted nut M 30 x 1.5 for starter side	1	94
94	1986 005 000	Connecting rod assembly with bearing shell	1	1010
	09 1986 005 005	Connecting rod assembly with bearing shell (1st replacement)	1	1010
	09 1986 005 006	Connecting rod assembly with bearing shell (2nd replacement)	1	1010
95	1932 003 101	Big-end bearing shell	1 pair	120
	09 1932 003 110	Big-end bearing shell with 0.25 mm smaller diameter (1st replacement)	1 pair	120
	09 1932 003 111	Big-end bearing shell with 0.5 mm smaller diameter (2nd replacement)	1 pair	120
96	1940 000 000	Big-end bolt	1 pair	120
97	1944 002 000	Tab washer	2	29
98	1942 001 000	Hexagon nut M 10	2	2
99	1986 013 000	Piston with rings 80.0 mm dia.	2	8
	09 1986 013 005	Piston with rings 80.5 mm dia. (1st replacement)	1	640
	09 1986 013 006	Piston with rings 81.0 mm dia. (2nd replacement)	1	640
100	1915 000 000	Trapezoidal section piston ring for top groove 80.0 mm dia.	1	15
	09 1915 000 005	Trapezoidal-section piston ring for top groove 80.5 mm dia. (1st replacement)	1	15
	09 1915 000 006	Trapezoidal-section piston ring for top groove 81.0 mm dia. (2nd replacement)	1	15
101	1915 001 000	Piston ring 80.0 mm dia.	1	15
	09 1915 001 005	Piston ring 80.5 mm dia. (1st replacement)	3	16
	09 1915 001 006	Piston ring 81.0 mm dia. (2nd replacement)	3	16
102	1916 000 000	Gudgeon pin	3	16
103	1945 001 000	Circlip	1	225
			2	2

Unit Head, Oil Pump

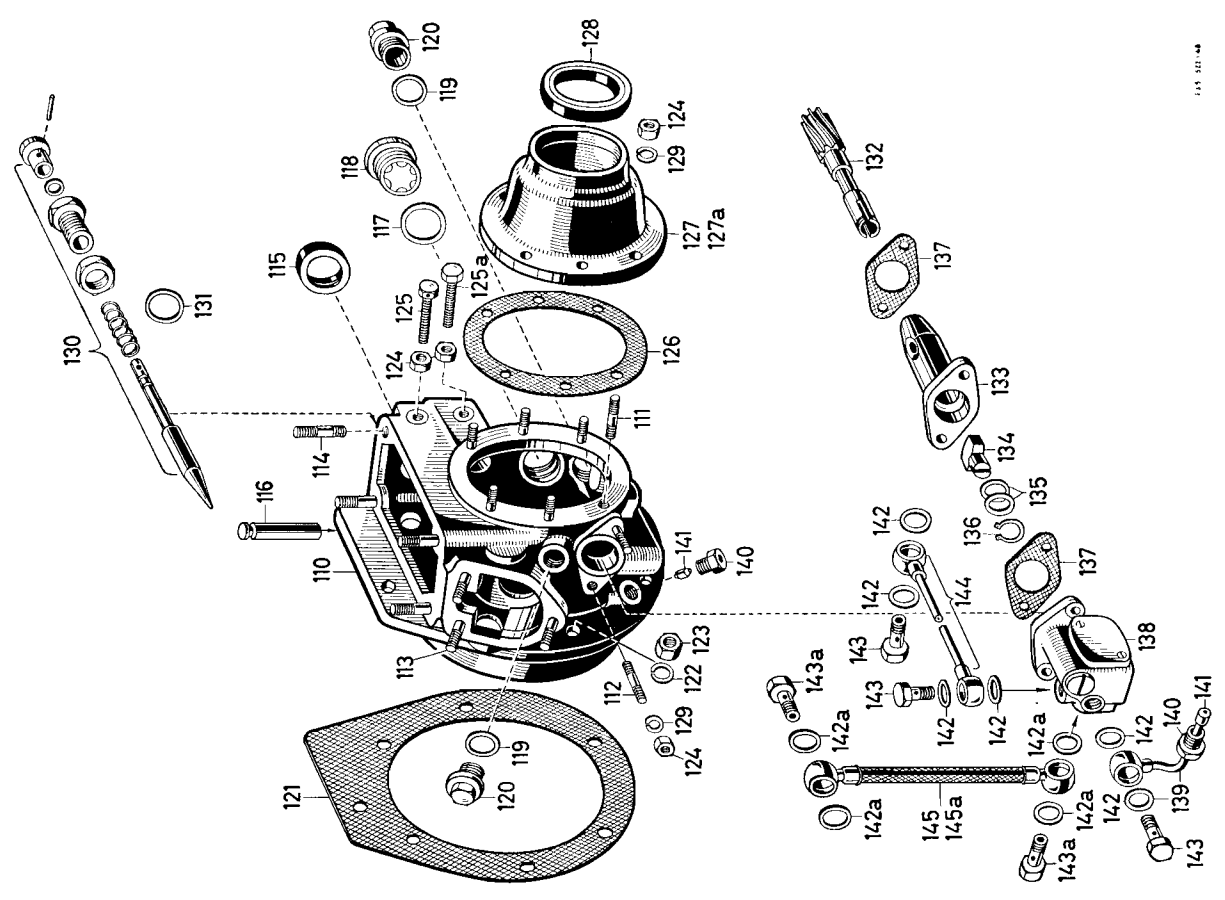


PLATE 4

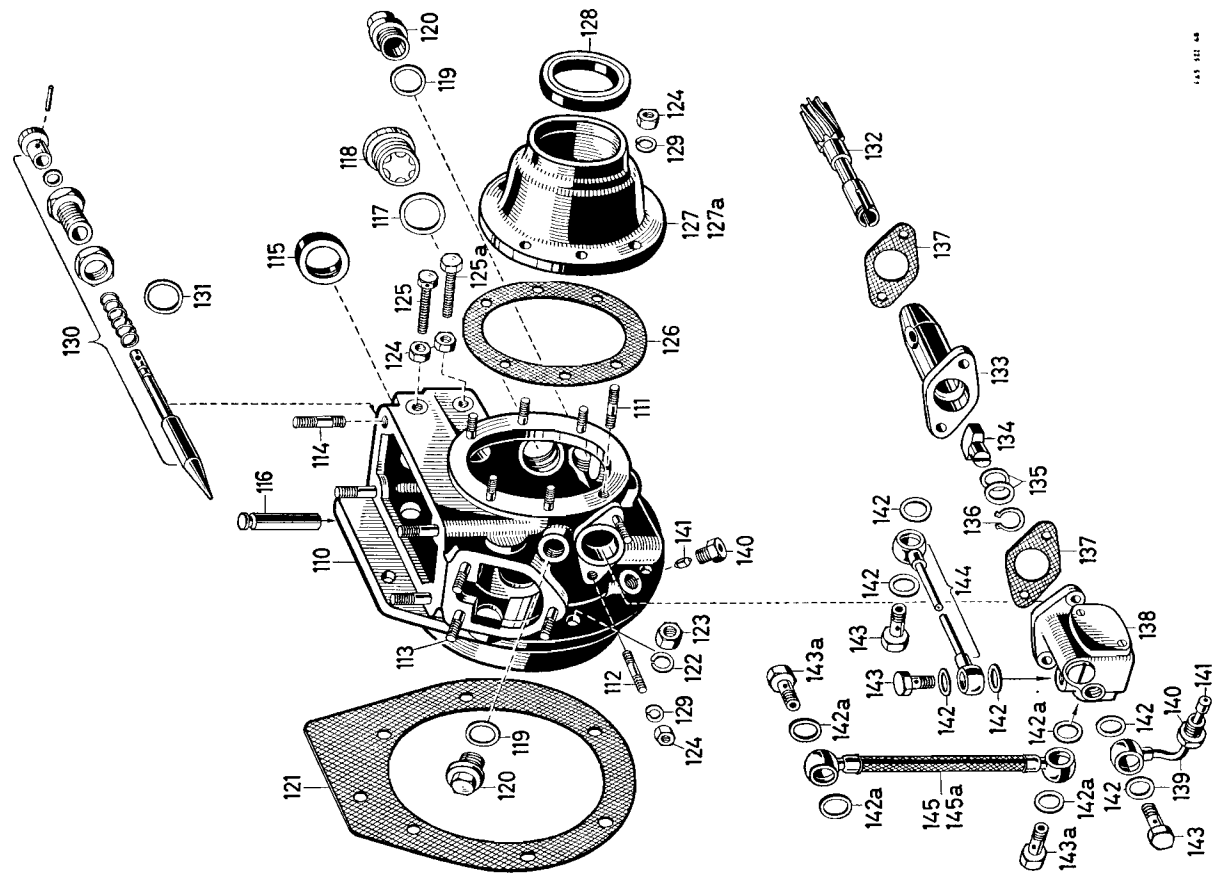
Unit Head, Oil Pump

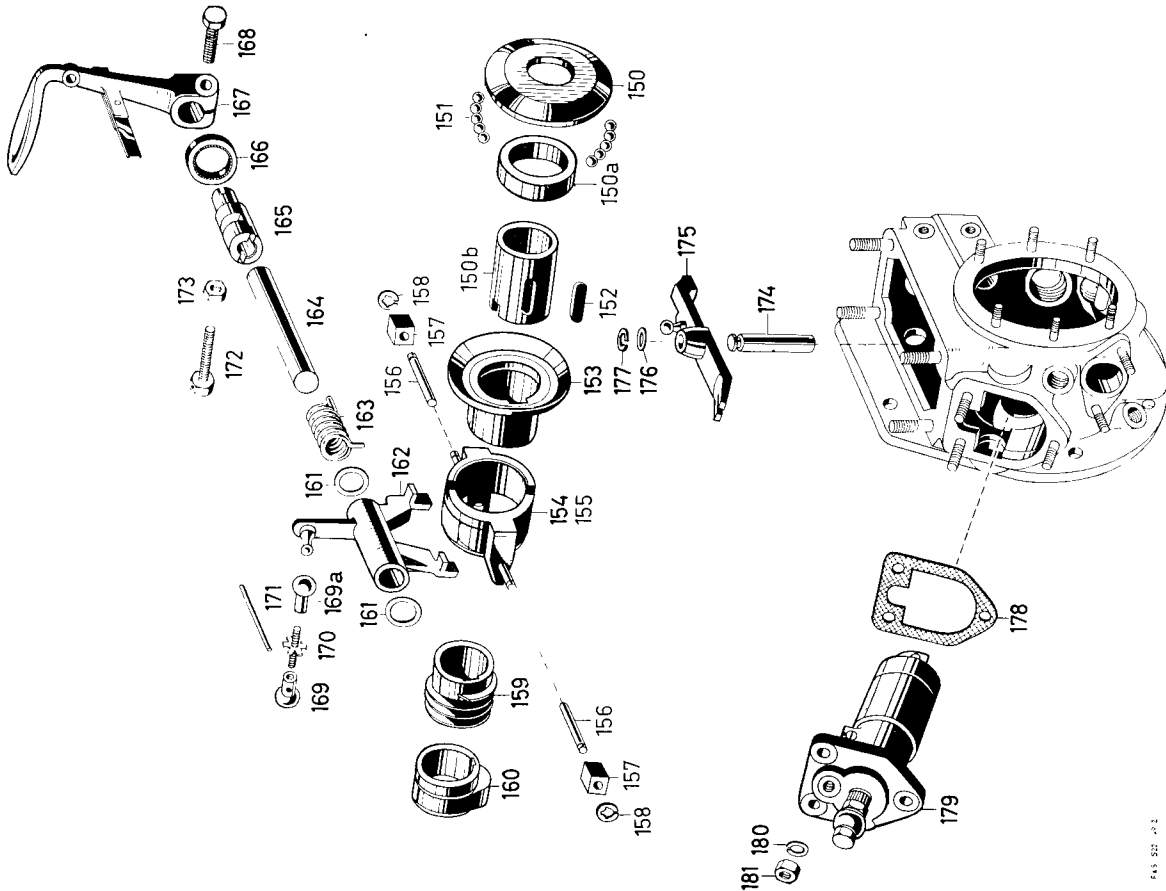
Illustr. No.	Part No.	Designation	Number off	Weight per unit in gr.
110	1986 016 005	Unit head assembly, with annular parallel-roller bearing	1	8720
111	0240 075 201	Stud M 6 x 15	6	4.5
112	1940 013 211	Stud M 6 x 28 for oil pump	2	7
113	0940 017 111	Stud M 8 x 20 for injection pump	3	11.5
114	1940 008 101	Stud M 8 x 28 for cover plate	4	14.5
115	2650 005 000	Seal for hand control lever	1	9
116	1949 005 001	Pivot pin for crank lever	1	24
117	1950 015 000	Seal for oil level glass	1	1.5
118	1972 007 000	Oil level glass with item 117	1	7.5
119	1950 121 000	Seal	2	0.5
120	1940 124 001	Screw plug	2	18
121	1950 014 000	Gasket for unit head	1	4
122	0245 023 004	Spring washer for M 10	6	2
123	0242 009 000	Nut M 10	6	11
124	0316 057 002	Nut M 6	10	2
125	0940 085 001	Hexagon head bolt M 6 x 35	1	9
125a	0940 085 005	Hexagon head bolt M 6 x 35 (drilled head)	1	9
126	1950 011 000	Gasket	1	2
127	1987 031 000	Unit head cover, comprising items 127a and 128	1	342
127a	1911 002 000	Unit head cover	1	312
128	1950 100 000	Shaft sealing ring	1	30
129	0245 023 002	Spring washer for M 6	8	0.6
130	1986 027 200	Smoke stop assembly (can be supplied only as a complete unit)	1	115
131	0250 011 002	Seal	1	1

Use only genuine F&S spares!

Illustr. No.	Part No.	Designation	Num-ber off.	Weight per unit in gr.
132	1937 000 000	Driving shaft for lubricating oil pump (check also worm gear, item 159, page 13)	1	99
133	1911 006 000	Bearing guide	1	198
134	1959 000 000	Coupling unit	1	4
135	0244 006 000	Shim 0.5 mm	as requ.	0.5
136	1945 002 000	Circlip A 13	1	1
137	1950 012 000	Gasket	2	0.3
138	1986 002 100	Lubrication oil pump	1	52
139	09 1950 123 000	Gasket for oil pump cover	1	
140	1986 011 000	Oil feed pipe from pump to unit head	1	9.5
141	0242 031 003	Nut	1	0.8
142	0272 014 001	Sealing nipple	1	1
142a	1950 024 000	Sealing ring for M 8	10	0.9
143	1950 023 000	Sealing ring for M 10	3	8
	1940 011 000	Banjo plug M 8 x 1	5	
	1940 011 003	Banjo plug M 8 x 1 with inner thread M 5	2	
	1950 118 000	Seal	2	
143a	0241 013 000	Hexagon head bolt M 5 x 6	2	
	1940 010 001	Banjo plug M 10 x 1	3	14
		1 plug for item 145		
		2 plugs for item 145a		
144	1986 010 000	Oil feed pipe from pump to end shield	1	
145	1986 029 001	Oil suction pipe assembly, with two different banjos (state required length)	1	
145a	1987 044 000	Oil suction pipe assembly, with one banjo rotated 90 degrees, stationary version of engine (state required length)	1	

Refuse to accept non-genuine parts!



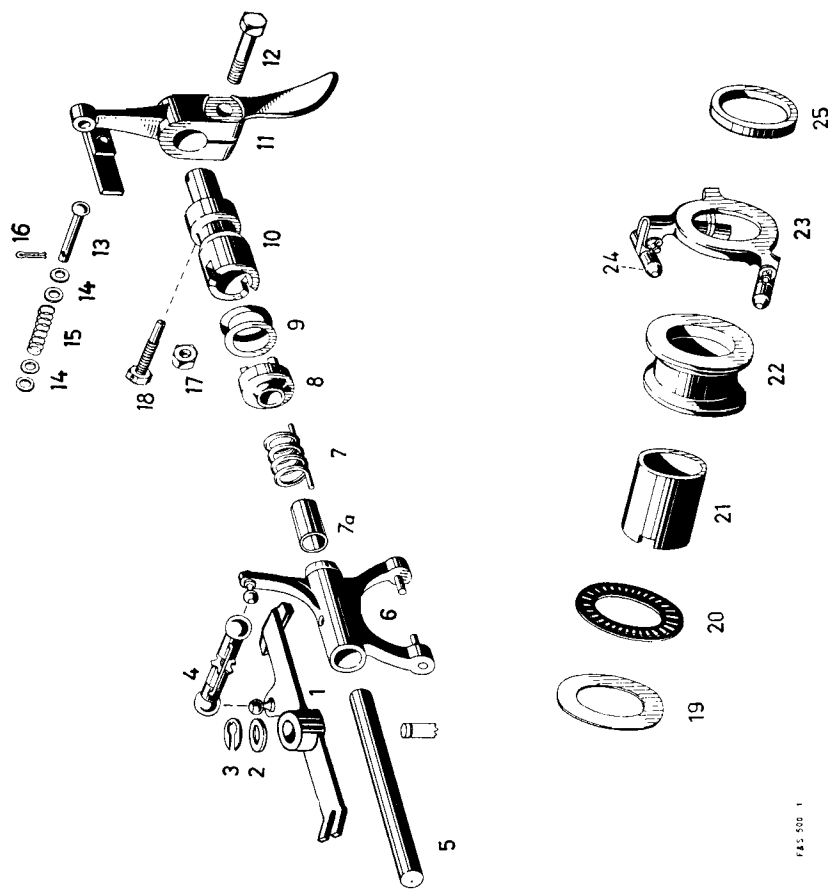


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Illusr. No.	Part No.	Designation	Num-ber off	Weight per unit in gr.
150	**09 1986 023 100	Governor assembly, up to engine No. 4164 427 comprising items 150 - 158	1	170
150a	1954 004 101	Governor cup	1	67
150b	1947 103 000	Ring	1	157
151	1954 106 000	Governor core	1	7.5
152	1932 001 000	Ball, 12 mm dia.	14	8
153	1946 000 005	Key (for item 150b)	1	225
154	1954 005 100	Governor collar	1	160
155	1986 024 005	Thrust collar assembly, comprising items 155 - 158	1	150
156	1954 000 100	Thrust collar	1	32
157	1949 012 000	Grooved pin	2	3.2
158	1959 010 000	Sliding block	2	0.2
159	1945 011 000	Retainer	2	97
160	1934 000 000	Worm gear (check also driving shaft, item 132, page 11)	1	106
161	1923 000 101	Cam	1	0.5
162	0244 006 000	Shim 0.5 mm	as requ.	137
163	1986 025 000	Governor fork	1	50
164	1939 000 000	Torsion spring	1	128
165	1949 004 000	Governor spindle	1	140
166	1954 006 000	Guide for hand control lever	1	9
167	0930 015 001	Seal	1	175
168	1986 022 105	Hand control lever assembly	1	13
169a	0940 073 001	Hexagon head bolt M 8 x 20	1	7.5
170	1986 097 000	Ball cup, L/hand thread M5 } consisting of items 169-170	1	3
171	1945 005 000	Adjusting spindle	1	8
172	0940 085 005	Retaining wire	1	2
173	0316 057 002	Hexagon head bolt M 6 x 35	1	24
174	1949 005 001	Nut M 6	1	79
175	1986 026 000	Pivot pin	1	0.5
176	0244 044 000	Double arm lever	as requ.	7.5
177	1945 004 005	Shim	1	0.5
178	1950 013 001	Circlip	1	1250
179	1986 003 106	Gasket 0.25 mm	1	1.2
180	0245 023 003	Injection pump PFR 1 LA 65/98/11	3	6.5
181	0242 020 000	Spring washer for M 8	3	

* For replacement of the double arm lever, item 175, or of the governor fork, item 162, or of both, up to engine No. 4164 427 the adjusting screw spindle, item 170, must also be replaced.

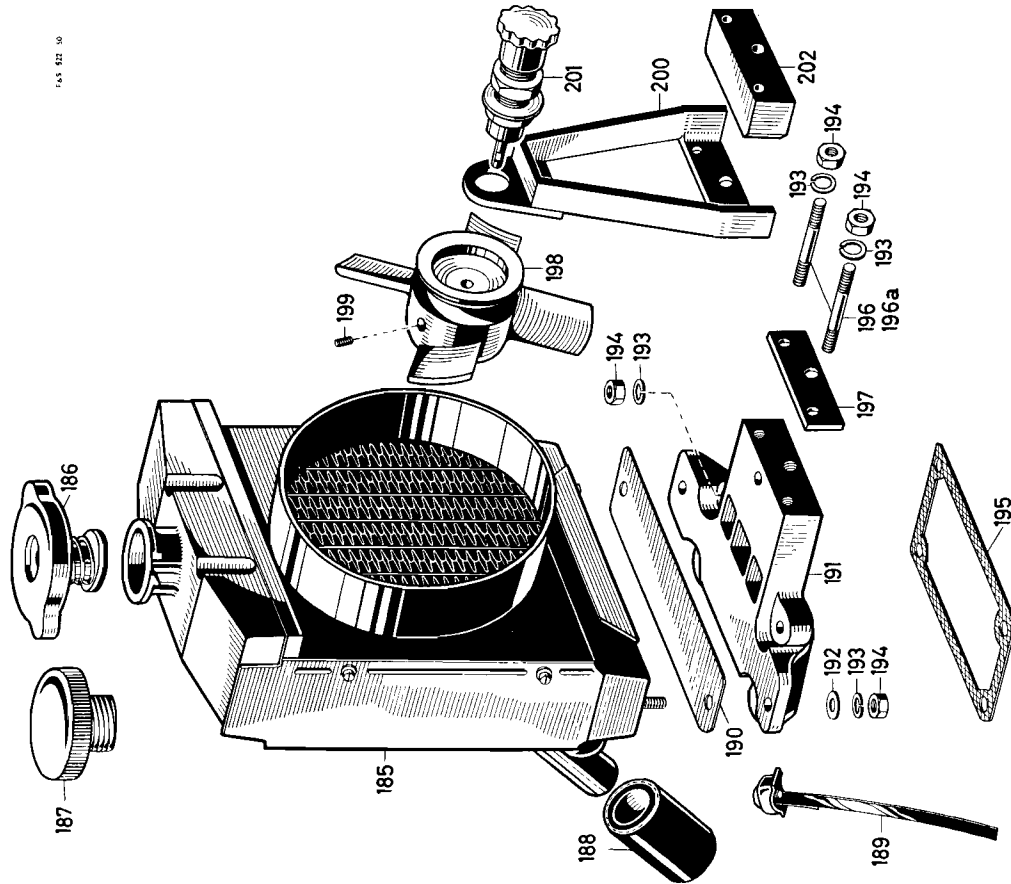
**Governor ass'y 09 1986 212 000 2nd version for fitting into engines instead of governor 1st version comprises items 6, 7, 7a, 8, 9, 11, 19, 20, 21, 22, 23, and 25 see Plate 5a).



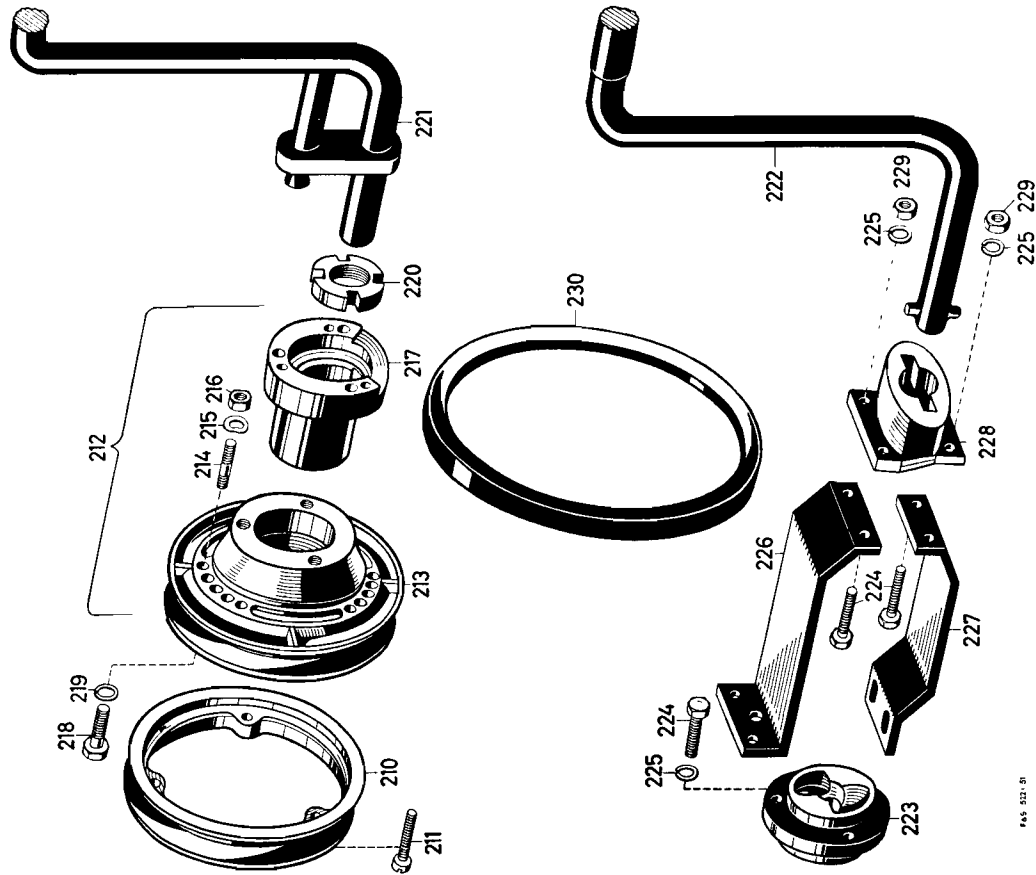
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Illustr. No.	Part No.	Designation	Num-ber off	Weight per unit in gr.
1	1986 026 000	Double arm lever	1	79
2	0244 044 000	Spacing washer 1.0 mm	as required	0.4
	0244 044 001	Spacing washer 0.8 mm		
	0244 044 002	Spacing washer 0.3 mm		
	0244 044 003	Spacing washer 0.15 mm		
3	1945 004 005	Locking washer	1	3.5
4	1986 097 000	Adjusting screw spindle	1	16
5	1949 004 000	Governor spindle	1	128
6	1986 025 100	Governor fork	1	150
7	1939 000 100	Governor spring	1	29
7a	1947 107 000	Spacer bush	1	5
8	1954 110 000	Adaptor	1	30
9	0944 046 000	Spacing washer 0.2 mm	as required	0.2
	0944 046 001	Spacing washer 0.3 mm		
	0944 046 002	Spacing washer 0.5 mm		
	0944 046 003	Spacing washer 0.4 mm		
10	1954 006 000	Guide for hand-control lever	1	140
11	1986 022 205	Hand-control lever, comprising items 11-16	1	185
12		Hexagon head screw M 8 x 25	1	
13		Rivet 5 dia. x 30	1	
14		Washer 1.0 mm	4	
15		Pressure spring	1	
16		Split pin	1	
17		Nut M 8	1	5
18	0841 034 001	Special screw M 8	1	12
19	1940 130 001	Washer	1	20
20	1932 115 000	Axial needle cage (only in connection with items 19 and 22)	1	10
21	1947 109 000	Spacer bush	1	90
22	1954 107 100	Governor sleeve (check also items 19, 20 and 24)	1	140
23	1986 194 110	Centrifugal governor ass'y	1	115
24	09 1986 195 101	Centrifugal weight with fitting (supplied only in connection with item 22)	1	34
25	1947 100 105	Spacer ring 40 dia. x 30 dia. x 7.5	1	33

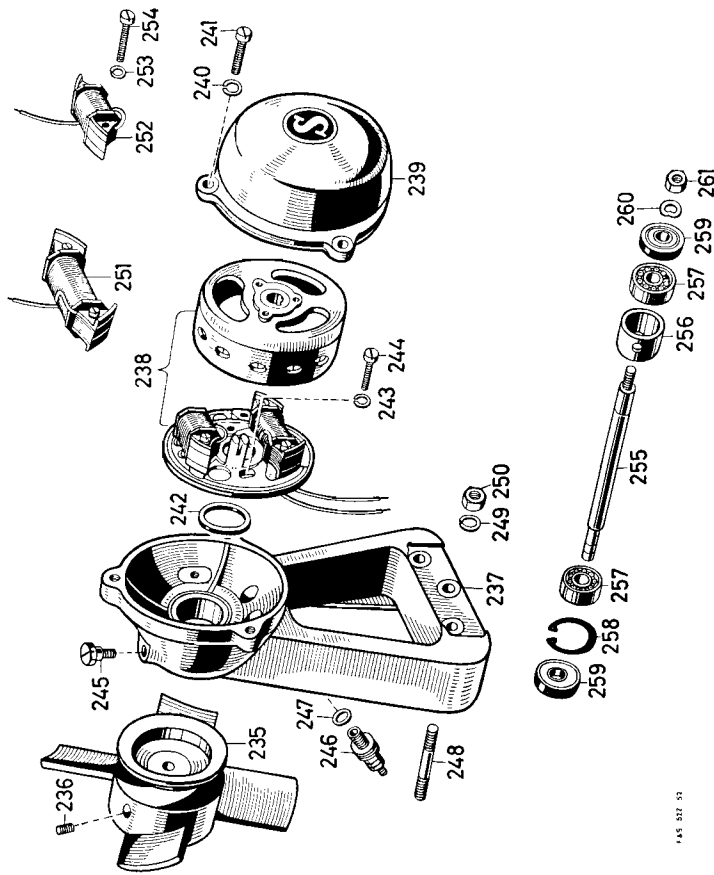
Illustr. No.	Part No.	Designation	Num-ber off	Weight per unit in gr.
185	1986 008 001	Radiator core with snap-on filler cap	1	3530
186	09 1972 019 002	Snap-on cap for item 185	1	80
187	09 1972 019 001	Screw-on filler cap	1	65
188	1960 001 000	Hose	4	36
189	1999 000 001	Hose joint clip	8	15
190	1960 002 000	Underlay strip for radiator	1	25
191	1986 140 000	Cover plate with connecting tube and 3 studs (version: without support)	1	200
	1986 140 005	Cover plate with connecting tube and 3 studs (version: with support)	1	200
192	0244 124 001	Washer	2	2.5
193	0245 023 003	Spring washer for M 8	9	1.2
194	0242 020 000	Nut M 8	9	5.5
195	1950 010 000	Gasket for cover plate	1	1
196	0940 017 101	Stud M 8 x 20 (without support)	3	11.5
196a	0940 149 001	Stud M 8 x 45 (with support)	3	
197	1944 006 000	Spacer plate	as requ.	
198	1986 040 009	Fan with bush and grub screw	1	390
199	1940 035 000	Grub screw M 6 x 15	1	2
200	1986 007 000	Bearing bracket	1	465
201	1932 002 000	Roller journal SR 23	1	120
202	1952 010 000	Block	1	125



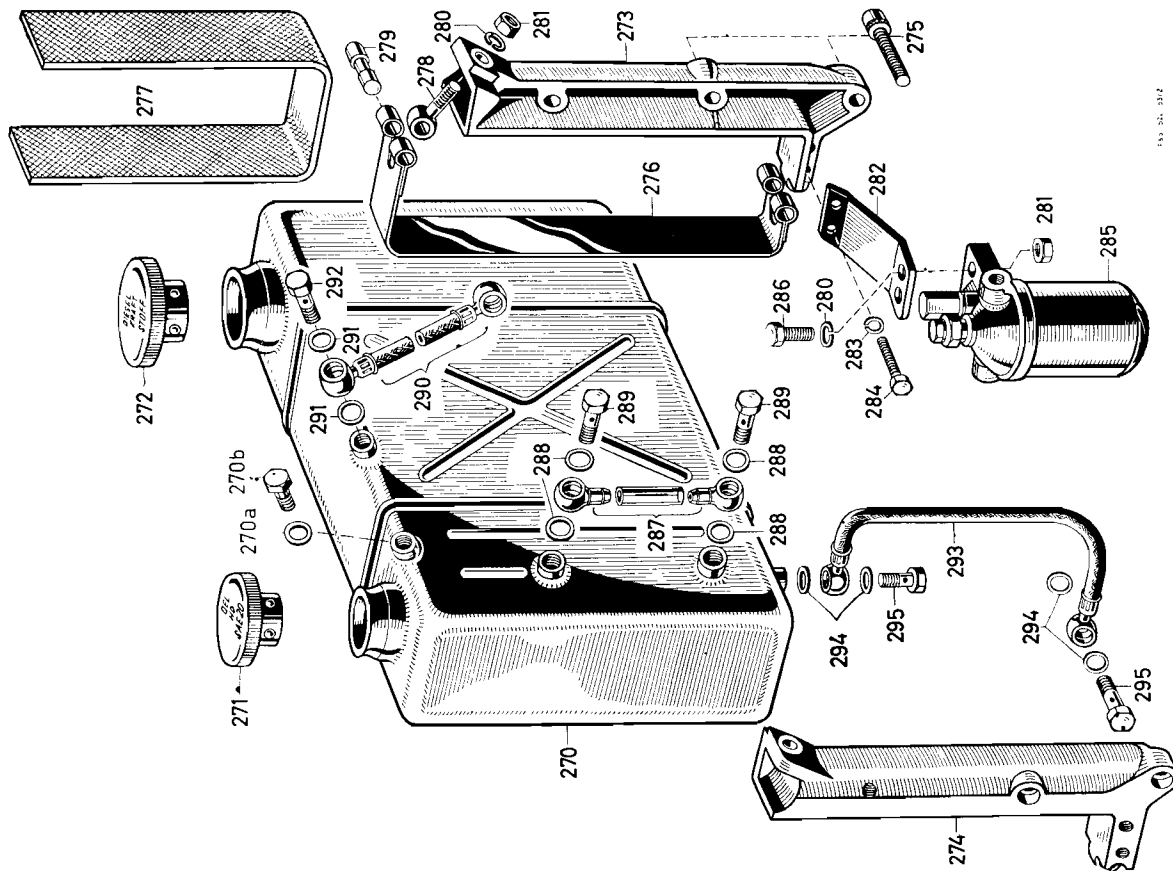
Illustr. No.	Part No.	Designation	Num-ber off	Weight per unit in gr.
210	1980 009 000.8	V-belt pulley rim for dynamo	3	190
211	1940 028 000	Cheese head screw M 8 x 40	1	17
212	1986 021 005	V-belt pulley assembly, with starter dog, comprising items 213-219	1	1167
213	1986 021 008	V-belt pulley	1	530
214	0640 023 101	Stud M 8 x 25	3	11
215	0644 011 000	Spring retainer	3	0.5
216	0942 067 100	Nut M 8	3	3
217	1952 005 001	Starter dog	1	615
218	0240 005 002	Hexagon head screw M 6 x 20	3	6.5
219	0245 023 002	Spring washer for M 6	3	0.6
220	1942 003 000	Slotted nut M 30 x 1.5	1	94
221	1986 006 001	Starting handle for engines without supporting bracket	1	1265
222	1986 006 102	Starting handle for engines with supporting bracket	1	1055
223	1986 006 109	Starting handle, version: Fahr, Nauder	1	
224	1952 006 100	Starting handle, version: Holder	1	
	0240 078 000	Starting ring	1	410
	0941 054 000	Hexagon head screw M 8 x 30	4	18
	1986 065 105	Hexagon head screw M 8 x 25	3	
		Starting pulley with all accessories	1	
		comprising:		
		1 x 1986 065 100 Starting pulley	7	1.2
		1 x 0991 019 000 Starting strap 1600 mm long	1	515
		1 x 1952 013 000 Handle	1	295
		3 x 0640 032 000 Stud M 8	1	800
		3 x 0245 023 003 Spring washer	4	5.5
		3 x 0242 020 000 Nut	1	54
225	0245 023 003	Spring washer for M 8	1	
226	1952 008 000	Supporting bracket, top	1	
227	1952 009 000	Supporting bracket, bottom	1	
228	1951 013 100	Supporting bracket, bottom (Holder)	1	
229	1952 007 000	Support for starting handle	1	
230	0242 020 000	Nut M 8	1	
	1980 001 000	V-belt 10 x 850 mm, DIN 2215	1	
	1986 065 105	Starting pulley with all accessories	1	
		comprising:		
		Starting pulley	1	
	1986 065 100	Stud M 8 x 26	3	
	0240 029 101	Spring washer for M 8	3	
	0245 023 003	Nut M 8	1	
	0242 020 000	Hand starting belt	1	
	1952 013 000	Starting strap	1	
	1986 210 000			



Illustr. No.	Part No.	Designation	Num-ber off	Weight per unit in gr.
235	1986 040 009	Fan	1	290
236	1940 035 000	Grub screw	1	3
237	1911 012 000	Bearing bracket	1	720
238	1986 045 000	Dynamo assembly LJ/MB 16/61	1	1070
239	1970 000 000	Cover for dynamo	1	195
240	0245 023 001	Spring washer for M 5	3	0.3
241	0240 076 000	Cheese head screw M 5 x 15	3	3
242	1950 034 000	Thrust washer (synthetic rubber)	1	3
243	0245 023 002	Spring washer for M 6	2	0.6
244	0640 001 000	Cheese head screw M 6 x 22	2	6
245	0241 023 000	Hexagon head screw M 6 x 5.5	1	3
246	0287 009 000	Lighting plug	2	9
247	0244 045 000	Washer	2	0.2
248	0940 015 101	Stud M 8 x 48	2	20
249	1944 006 000	Shim, illustr. 197	3 as requ.	1.2
250	0245 023 003	Spring washer for M 8	3	6
251	0242 020 000	Nut	3	145
252	09 1986 062 000	Lighting armature, bottom	1	135
253	09 1986 062 005	Lighting armature, top	1	0.2
254	0245 023 000	Spring washer for M 4	4	3
255	09 1940 032 000	Cheese head screw M 4 x 25	4	90
256	1937 001 100	Shaft	1	31
257	1947 001 000	Spacer	1	90
258	09 0932 033 001	Annular grooved ball bearing 16 101	2	24
259	1945 006 000	Circlip J 30 x 1.2	1	2
260	1950 033 000	Seal	2	7
261	0644 011 000	Spring retainer	1	1
	0841 034 000	Nut M 8 x 1	1	4



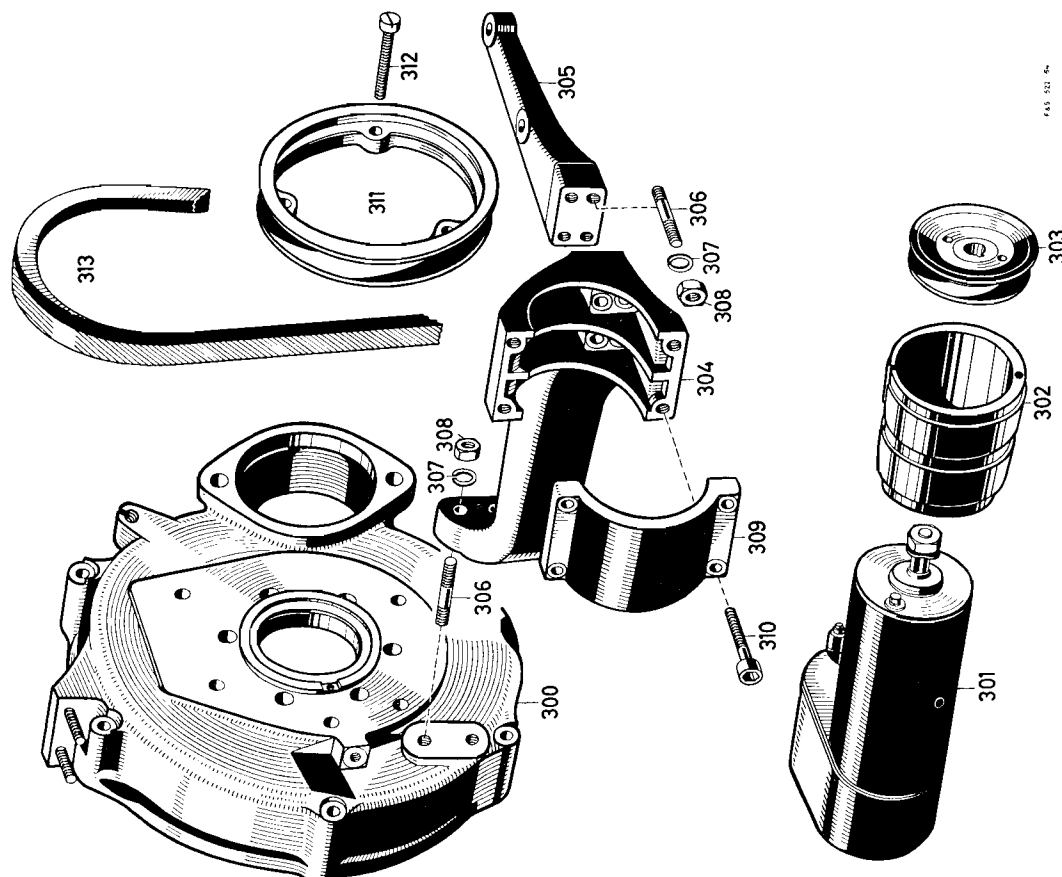
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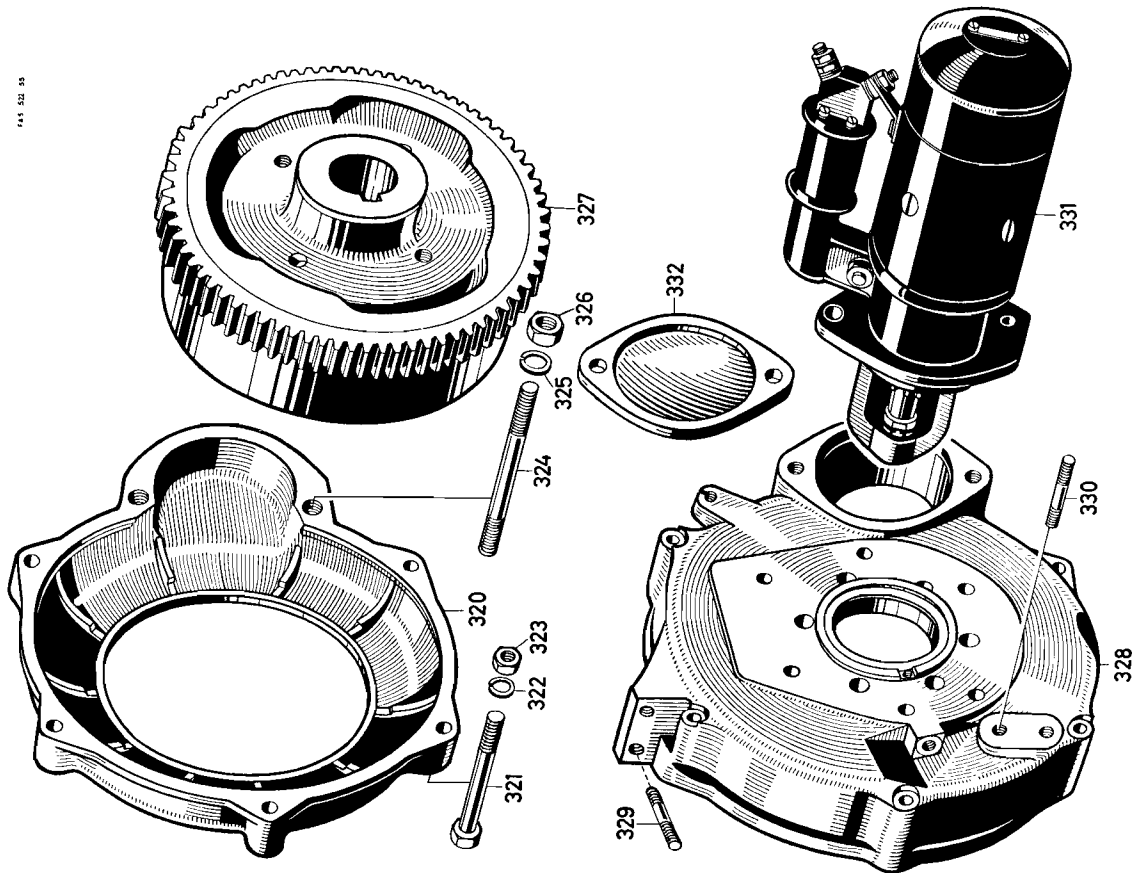


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Illustr. No.	Part No.	Designation	Num-ber off	Weight per unit in gr.
270	1986 039 008	Fuel tank with filler caps and gauge glass	1	3130
270a	1950 024 000	Seal	1	69
270b	2015 008 000	Plug M 8	1	95
271	1972 018 005	Filler cap for oil	1	1095
272	1972 017 000	Filler cap for fuel	1	1110
273	1951 003 000	Tank bracket, right	1	27
274	1951 002 000	Tank bracket, left	4	127
275	1940 022 000	Hexagon socket head screw M 10 x 30	2	77
276	1951 001 000	Tank strap	2	40
277	1960 004 000	Fabric underlay, 670 mm long	2	25
278	1940 021 000	Eye-bolt	4	2
279	1949 006 000	Pin for tank bracket	4	11
280	0245 023 004	Spring washer for M 10	4	180
281	0242 009 000	Nut	1	1.2
282	1951 004 000	Mounting bracket	2	13
283	0245 023 003	Spring washer for M 8	2	455
284	0940 073 001	Hexagon head screw M 8 x 20	1	29
285	1986 012 000	Fuel filter	1	45
286	0941 052 000	Hexagon head screw M 10 x 30	1	50
287	1986 031 006	Gauge glass assembly, for oil level, version: for two-wheel tractor	4	0.5
		Gauge glass for oil level, version: for stationary engine	2	13.5
288	1986 031 008	Sealing ring	1	1
289	0250 042 001	Banjo plug	2	27
290	1940 010 001	Leak-off pipe assembly, from nozzle to tank (state required length)	1	
291	1950 024 000	Sealing ring	1	
292	1940 011 000	Banjo plug	1	
293	1986 030 001	Fuel pipe assembly, from tank to filter, banjo at one end rotated 90 degrees in relation to banjo at other end (state required length)	1	
294	0250 073 000	Sealing ring	4	
295	1940 012 001	Banjo plug M 14 x 1.5	1	23

Illustr. No.	Part No.	Designation	Num-ber off	Weight per unit in gr.
300	1986 072 000	End shield with 2 studs	1	3320
301	1986 049 000	Dynamo 75 Watt (REE 75/12/1800/CR/1) will be superseded, after exhaustion of stocks, by: Dynamo 90 Watt (LJ/GEH 90/12/1800 FR 11)	1	4525
	1986 049 100.8	Cable set (2 cables, connection between dynamo and voltage regulator)	1	
	1986 207 000.8	Voltage regulator (RS/TBA 75...90/12 A1)	1	
	1986 209 000.8	Bracket for voltage regulator	1	
	0941 051 000	Screw, hexagon socket head M 8 x 45	2	
	1940 039 000	Screw, hexagon socket head M 8 x 35	2	
	0250 031 002	Washer	4	
	0941 057 008	Cheese head screw M 6 x 12	2	
	0245 023 002	Spring washer for M 6	2	
	0316 057 002	Nut M 6	2	
	1947 002 000.8	Adjusting collar	1	600
302	1980 008 000.8	V-belt pulley	1	310
303	1911 016 000.8	Mounting cradle	1	860
304	1987 032 005.8	Bracket with 2 studs	1	910
305	1940 008 000	Stud M 8 x 28	4	12.5
306	0245 023 003	Spring washer for M 8	8	1.2
307	0242 020 000	Nut M 8	4	6.5
308	0245 023 005	Spring washer for M 12	2	
	1940 023 000	Hexagon head screw M 12 x 40	2	
309	1911 014 000.8	Mounting cradle cap	1	280
310	1940 039 000	Hexagon socket head screw M 8 x 35	4	15
311	1980 009 000.8	V-belt pulley rim	1	190
312	1940 028 000.8	Cheese head screw M 8 x 40	3	17
313	1980 010 000.8	V-belt	1	54
	09 1964 102 100	Carbon brushes (WSK 39 L 3 Z - K 21)	2	





Illustr. No.	Part No.	Designation	Num-ber off	Weight per unit in gr.
320	1911 017 000	Cover, 200 mm internal dia.	1	1217
	1911 017 008	Cover, 232 mm internal dia.	1	1122
	1911 017 005	Cover, 270 mm internal dia.	1	64
321	1940 020 000	Hexagon head bolt M 10 x 90	5	2
322	0245 023 004	Spring washer for M 10	5	11
323	0242 009 000	Nut M 10	5	83
324	1940 030 101	Stud M 12 x 82	2	13.5
325	0245 023 005	Spring washer for M 12	2	3
326	0942 025 100	Nut M 12	2	13.5
327	1986 050 005	Flywheel with gear ring	1	23750
		consisting of: 1 x 1980 002 005 flywheel 1 x 1934 001 000 gear ring		
	1987 013 000	Flywheel with gear ring, version for fitting centrifugal plug	1	
328	1986 072 000	End shield with 2 studs, version with starter (flange-mounted engine)	1	3320
329	1940 003 101	Stud M 8 x 18	2	9
330	1940 008 000	Stud M 8 x 28	2	12.5
331	1986 048 100	Starting motor (1.3 H.P.)	1	11300
332	1911 015 000	Cap	1	165

Illustr. No.	Part No.	Designation	Num-ber off	Weight per unit in gr.
	1986 058 000	Clutch K 160 assembly, version without starter	1	14600
	1986 058 003	Clutch K 160 assembly, version with starter	1	
	1986 058 051	Clutch K 160 assembly, version without starter (Guldner)	1	
335	1942 011 000	Hexagon nut M 22 x 1.5	1	70
336	1944 012 000	Lock washer 23 mm dia.	1	13
337	1911 019 000	Bearing cap	1	830
338	0245 023 004	Spring washer for M 10	11	2
339	0941 052 000	Hexagon head screw M 10 x 30	6	29
340	1950 035 000	Gasket (synthetic rubber)	1	9
341	1950 036 000	Seal for bearing	2	54
342	1932 007 000	Radial bearing	2	287
343	1947 004 000	Spacer collar	1	148
344	1946 003 000	Woodruff key	1	10
345	1937 002 100	Driving shaft	1	1430
346	0240 129 000	Air vent screw	1	3.5
347	1940 030 101	Stud M 12 x 82 (for starter)	2	85
348	0242 009 000	Nut M 10	6	10.5
349	1940 029 101	Stud M 10 x 58	5	61
350	0245 023 005	Spring washer for M 12	2	3
351	0942 025 100	Nut M 12	2	13
352	1911 018 000	Clutch housing	1	5130
353	1937 003 000	Shaft for clutch lever	1	640
354	1945 008 000	Circlip A 17	1	1
355	0244 058 000	Shim	as requ.	0.2
356	1805 041 100	Spring	2	2
357	1859 012 010	Disconnecter assembly	1	250
	1859 013 000	Disconnecter (Bungartz)	1	
	1825 072 000	Spring (Bungartz)	2	
358	1940 042 000	Hexagon head screw M 10 x 30	1	26
359	1948 004 001	Clutch release fork	1	300
360	0316 057 002	Nut M 6	2	2
361	0245 023 002	Spring washer for M 6	2	0.6
362	0240 001 101	Stud M 6 x 15	2	2.5
363	1944 009 000	Spacer plate	1	15
364	1948 010 000	Lever, spring steel	1	250
365	0240 059 101	Cheese head screw M 6 x 12	2	4
366	1948 008 000	Cheek of clutch lever handle	1	37
367	1948 009 000	Cheek of clutch lever handle	1	40
368	1948 005 000	Clutch lever	1	220
369	1948 006 005	Clutch adjusting lever assembly with screw 0240 078 000	1	147
370	0245 023 003	Spring washer for M 8	1	1.2
371	0240 078 000	Hexagon head bolt M 8 x 30	3	17
372	0242 020 000	Hexagon nut M 8	2	6
373	0941 018 000	Hexagon socket head screw M 8 x 30	2	14
374	1948 007 000	Stop for clutch lever	.1	400

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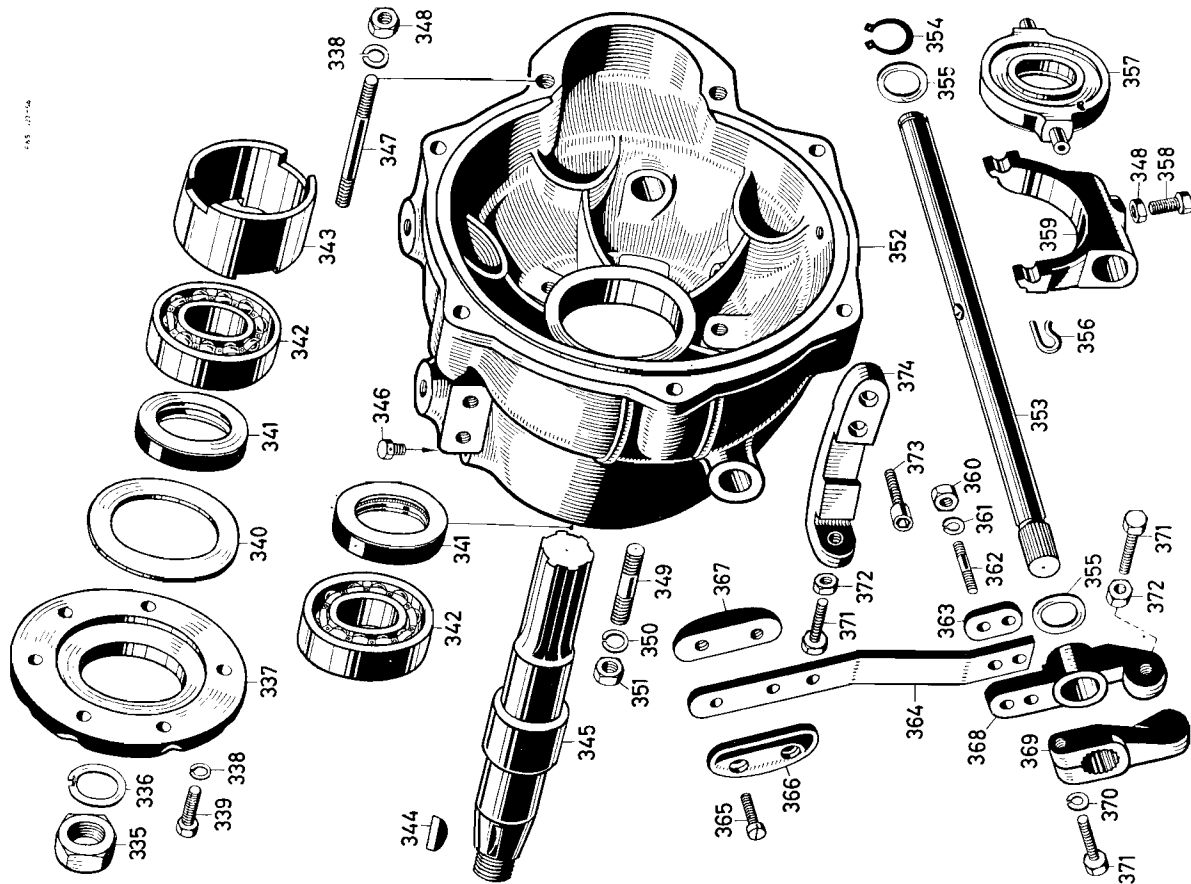
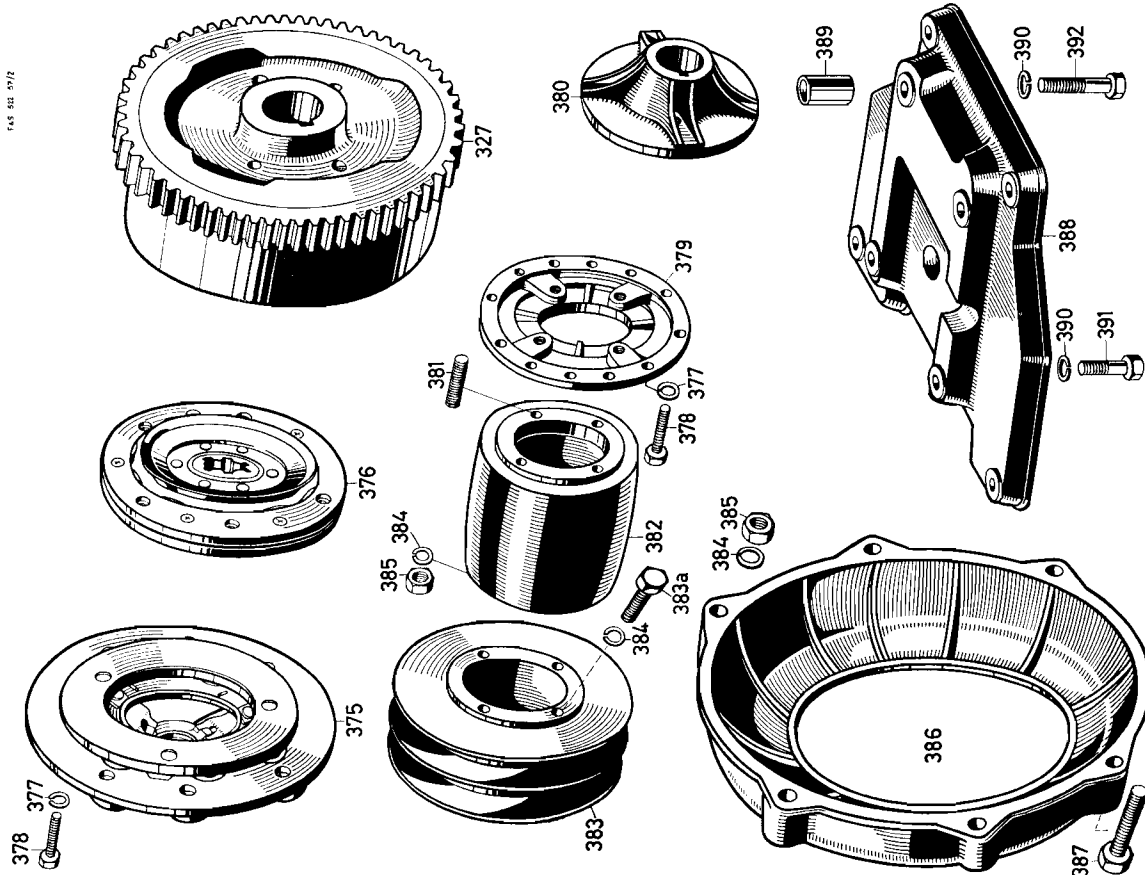
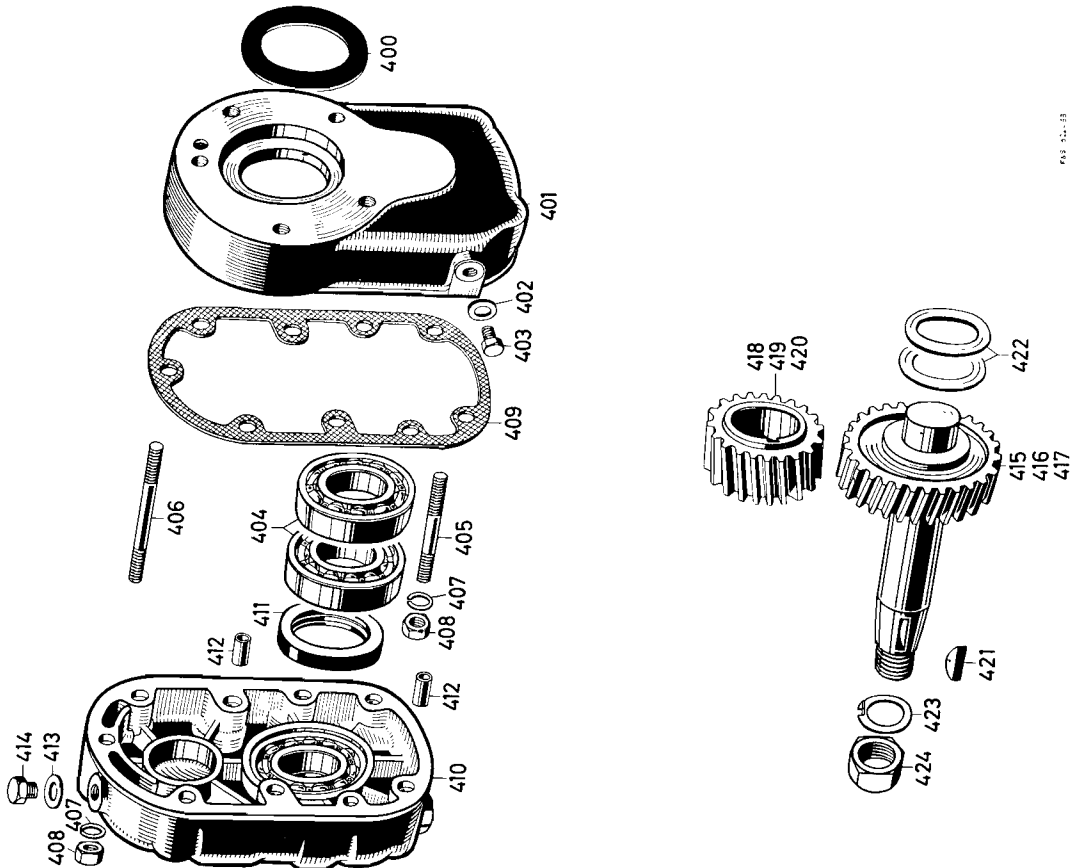


PLATE 12

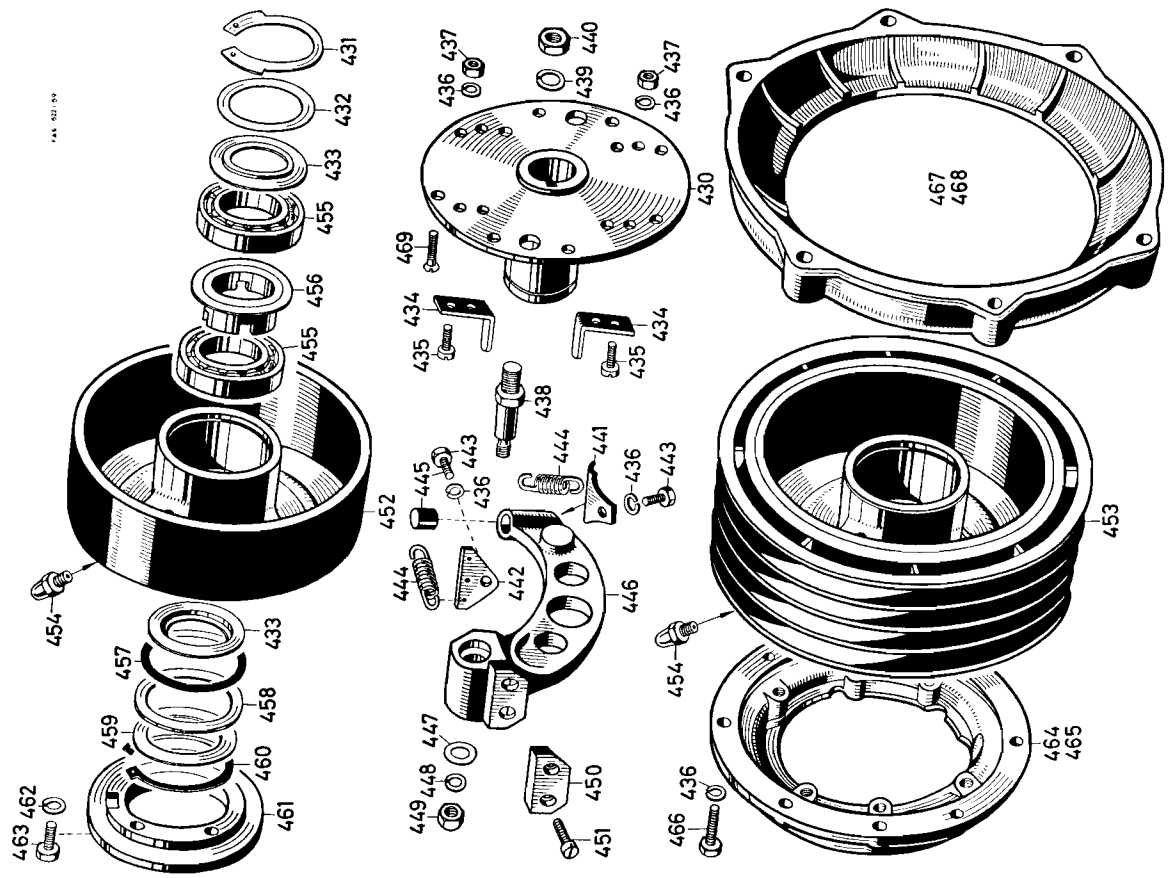
Illustr. No.	Part No.	Designation	Num-ber off	Weight per unit in gr.
375	1881 088 007	Clutch K 160	1	1595
376	1864 008 202	Driving plate K 160	1	415
377	0245 023 002	Spring washer for M 6	18	0.6
378	1815 008 000	Hexagon head screw M 6	18	5
379	1911 011 000	Flywheel (see Plate 3 and 11)	1	1295
380	1959 009 000	Centering plate for flywheel	1	1585
381	1940 006 101	Centering plate for driving shaft	1	24
382	1980 006 000	Stud M 10 x 25	4	2950
383	1980 007 000	Belt pulley	1	3015
383a	0941 052 000	V-belt pulley	1	
384	0245 023 004	Hexagon head screw M 10 x 30	4	2
385	0242 009 000	Spring washer for M 10	10	11
386	1911 010 000	Nut M 10	10	1107
387	1940 020 000	Cover	1	64
		Hexagon head bolt M 10 x 90	6	
388	1987 026 000	Pedestal with spacer bushes and bolts	1	9470
389	1908 000 001	Pedestal	1	
390	1947 000 000	Spacer bush	2	67
391	0245 023 005	Spring washer for M 12	4	3
392	1940 043 000	Hexagon head bolt M 12 x 55	2	68
	1940 044 000	Hexagon head bolt M 12 x 75	2	80
	1881 090 001	Clutch K 180	1	
	0940 073 001	Screw M 8 x 10	6	
	0245 023 003	Spring washer for M 8	6	
	1864 015 102	Driving plate 180/68, profil 18 x 23 x 3	1	
		Bungartz Rossi		





Illustr. No.	Part No.	Designation	Num-ber off	Weight per unit in gr.
400	1986 054 100	Gear unit $i = 2$	1	40
401	1986 054 103	Gear unit $i = 0.67$	1	1775
	1986 054 105	Gear unit $i = 0.56$	1	0.2
	1950 035 000	Gasket	1	10
	1987 039 100	Gearcase with 2 studs and grooved ball bearing 6207	1	285
402	0250 004 001	Seal	1	35
403	0940 105 100	Screw plug	1	65
404	1932 007 000	Grooved ball bearing 6207	2	2
405	1940 029 001	Stud M 10 x 50	2	11
406	1940 031 200	Stud M 10 x 93	5	2
407	0245 023 004	Spring washer for M 10	7	2
408	0242 009 000	Hexagon nut M 10	7	2
409	1950 037 000	Gasket	1	1835
410	1987 040 100	Gearcase cover with Radiax bearing and shaft sealing ring	1	70
411	1950 036 000	Shaft sealing ring 35 x 62 x 10	1	4
412	1949 011 000	Dowel tube 12 mm dia.	2	0.4
413	0950 014 001	Seal	1	10
414	0940 025 000	Screw plug M 8 x 9	1	1540
415	1986 059 000	Layshaft with layshaft wheel (30 teeth, ratio 0.56)	1	1714
416	1986 059 003	Layshaft with layshaft wheel (34 teeth, ratio 0.67)	1	2505
417	1986 059 005	Layshaft with layshaft wheel (56 teeth, ratio $i = 2$)	1	1480
418	1934 003 000	Driving gear 54 teeth	1	1240
419	1934 007 000	Driving gear 51 teeth	1	453
420	1934 005 000	Driving gear 28 teeth	1	10
421	1946 003 000	Woodruff key	1	as requ.
422	1944 010 000	Shim	1	11
423	1944 012 000	Lock washer	1	68
424	1942 011 000	Hexagon nut M 22 x 1.5	1	

Centrifugal Clutch, Version: with Retaining Ring

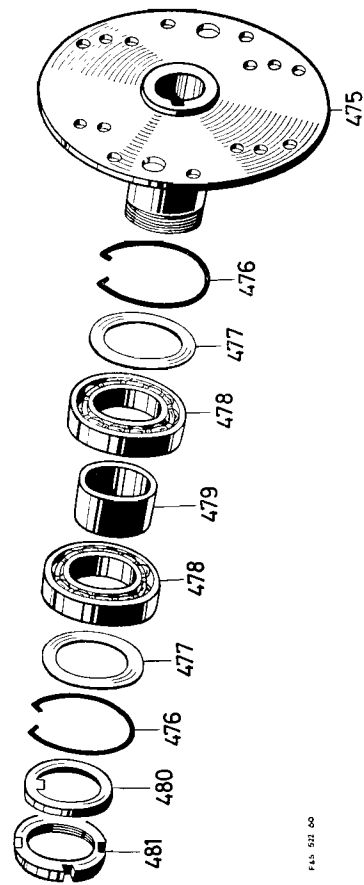


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Centrifugal Clutch, Version: with Retaining Ring

Illustr. No.	Part No.	Designation	Num-ber off	Weight per unit in gr.
430	1987 025 103	Centrifugal clutch assembly, version: flat-belt pulley	1	7400
431	1987 025 108	Centrifugal clutch assembly, version: V-belt pulley	1	13800
432	1959 006 100	Clutch hub	1	1280
433	0945 101 000	Circlip	1	17
434	0944 071 010	Shim 0.8 mm	as requ.	6
435	0950 106 000	Nilos ring	2	5
436	0959 087 001	Stop bracket	2	18.5
437	0240 059 101	Cheese head screw M 6 x 18	4	5
438	0245 023 002	Spring washer for M 6	8	0.6
439	0316 057 002	Hexagon nut M 6	4	2.5
440	0949 044 001	Pivot for friction shoe	2	68
441	0245 023 005	Spring washer for M 12	2	3
442	0942 025 100	Hexagon nut M 12	2	14.5
443	0959 085 001	Inset plate, bent	2	19.5
444	0959 086 001	Inset plate, straight	2	12.5
445	0240 038 002	Hexagon head screw M 6 x 15	4	5
446	0939 038 000	Spring for friction shoe	4	6
447	0949 063 000	Stop	2	3
448	0644 002 001	Friction shoe with lining	2	504
449	0644 002 002	Shim 0.5 mm for friction shoe	as requ.	2
450	0242 020 000	Shim 0.3 mm for friction shoe	2	6
451	0240 076 000	Washer for friction shoe	2	22
452	0958 022 000	Hexagon nut M 8	4	3
453	0240 076 000	Clutch lining	1	3765
454	0959 070 100	Cheese head screw M 5 x 15	1	6695
455	1986 067 100	Clutch case, version with flat-belt pulley	1	128
456	0999 127 000	Clutch case, version with V-belt pulley	1	35
457	0932 021 001	Grease nipple	1	7.5
458	0947 101 000	Ball bearing 16 008 DIN 625	2	5
459	0950 094 000	Spacer	1	85
460	0947 102 000	Sealing ring	1	1.2
461	1944 010 010	Spacer ring	1	12
462	1944 010 011	Shim 0.3 mm	as requ.	2840
463	0945 102 000	Shim 0.8 mm	1	2000
464	0959 103 000	Circlip	1	5
465	0245 023 003	Retaining ring	1	820
466	1815 007 000	Spring washer for M 8	3	940
467	1959 005 000	Hexagon head screw M 8 x 20	3	5
468	1959 011 000	Centering flange, 262 mm external dia.	1	820
469	1815 008 000	Centering flange, 220 mm external dia.	1	940
	0241 036 101	Hexagon head screw M 6 x 18	8	5
	1911 010 005	Stud M 8 x 22	6	820
	1911 010 008	Cover for item 464 (265 mm internal dia.)	1	940
	1940 033 000	Cover for item 465 (228 mm internal dia.)	1	5
		Countersunk screw M 6 x 30	8	

Components for Centrifugal Clutch, Version: with Ring Nut



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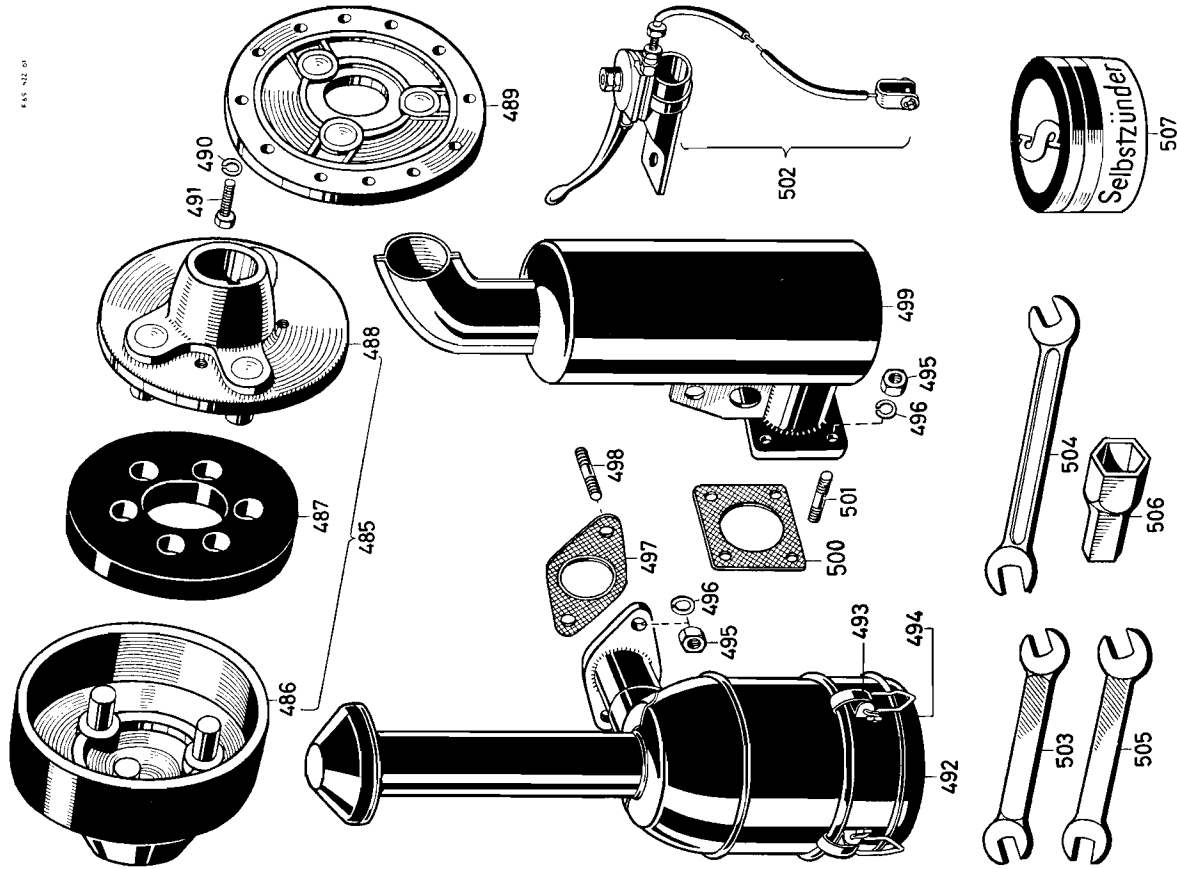
Components for Centrifugal Clutch, Version: with Ring Nut

Illustr. No.	Part No.	Designation	Num-ber off	Weight per unit in gr.
475	0959 070 000	Clutch case, version: with flat-belt pulley	1	3765
476	1986 067 000	Clutch case, version: with V-belt pulley	1	6670
477	1959 006 000	Clutch hub	1	1305
	0945 022 000	Circlip	2	8.5
	0944 071 000	Cover ring 0.8 mm	as requ.	9
	0944 071 001	Cover ring 1.0 mm		11
	0944 071 002	Cover ring 0.3 mm		4.5
478	09 0932 021 001	Ball bearing 16 008 DIN 625	2	128
479	0947 013 000	Spacer	1	330
480	0945 018 000	Lock washer		12.5
481	0942 036 001	Ring nut		35

PLATE 14a

Refuse to accept non-genuine parts!

Illustr. No.	Part No.	Designation	Num-ber off	Weight per unit in gr.
485	1986 052 000 1986 052 005	Socket-type flexible coupling assembly (on driving shaft) Socket-type flexible coupling assembly (for attachment to flywheel), comprising items 489, 490, 491, 486, 487	1	5870
486	1986 056 008	Coupling flange, not drilled	1	6150
487	1959 004 000	Flexible plate	1	3200
488	1986 056 005	Coupling flange, drilled	1	400
489	1986 056 000	Centering flange	1	2265
490	0245 023 002	Spring washer for M 6	12	2440
491	0240 003 000	Hexagon head screw M 6 x 25	12	0.6 8
492	1986 000 000 1967 000 000	Oil-bath air cleaner (LOZ 1.6-16) Intermediate section for oil-bath air cleaner, version: Hummel	1	1675
493	09 1986 033 000	Quick-release fastening	1	134
494	1986 032 000	Oil container	3	11
495	0242 020 000	Hexagon nut M 8	1	285
496	0245 023 003	Spring washer for M 8	6	6.5
497	1950 001 000	Gasket for air cleaner	6	1.2
498	1940 003 101	Stud M 8 x 18	1	8.5
499	1973 002 000 1973 002 001 1973 002 005	Silencer assembly Silencer assembly, with fistail Silencer assembly, version: with electric starter	2 1 1	9.5 2435
500	1973 003 000	Silencer assembly, version: Fahr	1	
501	1950 000 000	Gasket for silencer	1	16.5
502	0940 017 111 1986 053 000	Stud M 8 x 20 Control cable assembly, with throttle control lever	4 1	11.5 366
		comprising: 1 x 0289 035 000 adjusting screw assembly 1 x 0299 041 000 control cable, 1100 mm long, with soldering tag 1 x 0299 042 000 Bowden spiral assembly 1 x 0988 040 000 throttle control lever 1 x 1951 006 000 fixing sleeve 1 x 0244 054 002 washer 1 x 0945 030 000 split pin 1 x 1943 000 001 round-headed rivet 1 x 1951 007 001 mounting clip		
503	1976 000 100	Tool kit, comprising items 503-506	1	415
504	1976 001 000	Spanner, 11 mm and 12 mm width	1	69
505	1976 013 000	Spanner, 17 mm and 19 mm width	1	100
506	1976 015 000 0976 009 001	Spanner, 10 mm and 14 mm width Box spanner	1 1	63 80
507	09 1999 002 006 09 1986 057 100	Box containing self-igniting fuses Set of gaskets	1 1	105



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