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ER DIESEL  
ANNUAL



*Continental Motors Corporation*

MUSKEGON, MICHIGAN

## CODE

A-Model B371 Engine C-Model B6371 Engine  
 B-Model B427 Engine D-Model B6427 Engine

## CONTINENTAL MOTORS B600 SERIES ENGINE

Figure 1. External View Engine Parts Group (Continued)

Index No.	Part Number	Nomenclature	Code	Quantity
	*B600A-3072-A	Cylinder & Crankcase	C	1
	**B600A-3072-C	Cylinder & Crankcase	C	1
	***B600A-3072-I	Cylinder & Crankcase	C	1
	****B600A-3073-S	Cylinder & Crankcase	C	1
26	B427K-305	Tee - Water Inlet	A, B	1
	B600K-332	Tee - Water Inlet	C, D	1
27	X-2354	Clamp - Hose	All	2
28	B405K-202	Hose - Inlet Tee to Pump	A, B	1
	Y112K-205	Hose - Inlet Tee to Pump	C, D	1
29	X-12300	Elbow - Street	A, B	1
30	X-5124	Nipple	A, B	1
31	X-12299	Elbow	A, B	1
32	X-12390	Nipple	A, B	1
	X-12297	Nipple	C, D	1
33	R600K-231	Clamp - Hose	All	2
34	X-5309	Connection - Straight	A, B	1
35	B405K-3310	Tube Assembly - Water Pump Vent	A, B	1
	B600K-2000	Tube Assembly - Water Pump Vent	C, D	1
36	X-5306	Elbow - Water Pump Vent Tube	A, B	1
	X-5075	Elbow - Water Pump Vent Tube	C, D	2
37	X-2431	Hose - Outlet Elbow to Tee	A, B	1
	B600K-434	Hose - Water By-pass	C, D	1
38	E604K-3000	Tube Assembly - Cylinder Water Distributor	All	1
39	7TC-215	Ring - Dowel	A, B	2
40	M600B-305	Gasket	A, B	1
41	X-203	Washer - Lock	A, B	2
42	X-3941	Screw	A, B	2
43	M600B-312	Plate - End	A, B	1
44	M600B-313	Gasket	A, B	1
45	M600B-4105	Cover Assembly - Gear (Including Cover & Seal)	A, B	1
46	M600L-214	Seal	A, B	1
47	X-3295	Screw	A, B	1
48	X-203	Washer - Lock	A, B	1
49	X-1802-G	Nut	A, B	1
50	X-20040	Stud	A, B	1
51	X-203	Washer - Lock	A, B	1
52	X-1802-G	Nut	A, B	1
53	X-203	Washer - Lock	A, B	1
54	X-3776	Screw	A, B	1
55	X-203	Washer - Lock	A, B	2
56	X-3258	Screw	A, B	2
57	X-204	Washer - Lock	A, B	1
58	X-3427	Screw	A, B	1
59	X-203	Washer - Lock	A, B	4
60	X-3252	Screw	A, B	2
61	X-3939	Screw	A, B	2
62	X-3386	Screw	A, B	1
63	X-204	Washer - Lock	A, B	1
64	7TC-215	Ring - Dowel	C, D	2
65	M600B-305	Gasket	C, D	1
66	M600B-304	Plate - End	C, D	1

Notes: (\*) The "A" Cylinder & Crankcase Assembly includes cylinder and crankcase, bearings, bushings, guides, inserts, support, guard, screws, studs, plugs and pins.

(\*\*) The "C" Assembly includes all parts in the "A" Assembly plus pistons and rings.

(\*\*\*) The "I" Assembly includes all parts in the "C" Assembly plus valves, springs, locks, retainers, and tappet assembly.

(\*\*\*\*) The "S" Assembly includes all parts in the "I" Assembly plus connecting rods, crankshaft, camshaft, front end plate, gears, filler blocks, cylinder head, gaskets, gear cover assembly, oil pump assembly, oil pan assembly, studs, nuts, screws, washers, plugs and lockwires.

## CONTINENTAL MOTORS B600 SERIES ENGINE

CODE

A-Model B371 Engine  
B-Model B427 EngineC-Model B6371 Engine  
D-Model B6427 Engine

Figure 1. External View Engine Parts Group (Continued)

Index No.	Part Number	Nomenclature	Code	Quantity
67	X-203	Washer - Lock	C, D	2
68	X-3941	Screw	C, D	2
69	M600B-307	Gasket	C, D	1
70	X-3942	Screw	C, D	2
71	X-203	Washer - Lock	C, D	2
72	X-1802-G	Nut	C, D	2
73	M600B-4012	Cover Assembly - Gear (Including Cover & Seal)	C, D	1
74	M600L-214	Seal	C, D	1
75	X-19006	Stud	C, D	1
76	X-203	Washer - Lock	C, D	1
77	X-1802-G	Nut	C, D	1
78	X-203	Washer - Lock	C, D	1
79	X-3776	Screw	C, D	1
80	X-203	Washer - Lock	C, D	1
81	X-3063	Screw	C, D	1
82	X-204	Washer - Lock	C, D	1
83	X-3427	Screw	C, D	1
84	X-203	Washer - Lock	C, D	4
85	X-3252	Screw	C, D	2
86	X-3939	Screw	C, D	2
87	X-3319	Screw	C, D	1
88	X-203	Washer - Lock	C, D	1
89	X-3386	Screw	C, D	1
90	X-204	Washer - Lock	C, D	1
91	T427B-406	Gasket	All	2
92	M600B-303	Block - Filler (Front)	All	1
93	X-297-A	Washer - Lock	All	2
94	X-3924	Screw	All	2
95	M600B-345	Gasket (Front)	All	1
96	E604B-4000	Pan Assembly - Oil	All	1
97	W4B-108	Gasket	All	1
98	W4B-109	Plug - Oil Pan, Drain	All	1
99	Reserved			
100	X-5790	Screw and Lockwasher Assembly	All	22
101	E600B-310	Guard - Oil, Crankshaft Bearing (Rear)	All	1
102	T427B-201	Seal	All	2
103	M600B-402	Block - Filler (Rear)	All	1
104	X-297-A	Washer - Lock	All	2
105	X-2957	Screw	All	2
106	M600B-345	Gasket (Rear)	All	1
107	16EV-201	Gasket - Fuel Pump Hole (Front)	All	1
108	16EB-202	Cover - Fuel Pump Hole (Front)	All	1
109	X-202	Washer	All	4
110	X-3182	Screw - Front Cover	A, B	2
	X-1954-B	Stud - Front Cover	C, D	2
111	12KL-228	Valve - Relief, Oil Pressure	All	1
112	X-14324	Washer - Adjusting	All	UAR*
113	M600L-223	Spring	All	1
114	X-386	Gasket	All	1
115	S749L-202	Plug	All	1
116	E800A-206	Gasket - Valve Chamber Cover	All	2
117	E604A-300	Cover - Tappet Chamber (Front)	A, B	1
	E604A-300	Cover - Tappet Chamber (Rear)	C, D	1
118	B600A-3090	Cover Assembly - Tappet Chamber (Rear)	A, B	1
	B600A-3090	Cover Assembly - Tappet Chamber (Front)	C, D	1
119	X-4001	Stud	All	4
120	X-334	Gasket	All	4

Note: (\*) Use as required.

## CODE

A-Model B371 Engine C-Model B6371 Engine  
 B-Model B427 Engine D-Model B6427 Engine

## CONTINENTAL MOTORS B600 SERIES ENGINE

Figure 1. External View Engine Parts Group (Continued)

Index No.	Part Number	Nomenclature	Code	Quantity
121	X-18327	Nut	All	4
122	X-4353	Stud	All	11
123	B600E-400	Gasket	All	1
124	B465E-400	Manifold - Exhaust (Front Section)	A, B	1
125	B600E-501	Manifold - Exhaust (Rear Section)	All	1
126	X-14319	Washer - Plain	All	4
127	M600E-200	Crab	All	7
128	X-18121	Nut	All	11
129	22RE-200	Dowel	All	2
130	B405F-300	Manifold - Intake	A, B	1
	B600F-501	Manifold - Intake	C	1
	B600F-401	Manifold - Intake	D	1
131	X-100	Plug - Pipe, 1/8 in. Ext. Head	All	1
132	X-103	Plug - Pipe, 1/2 in.	C, D	1
133	X-3940	Screw	C, D	2
134	X-14134	Washer	C, D	2
135	B600E-500	Manifold - Exhaust (Front Section)	C, D	1
136	X-18111	Nut	C, D	2
137	X-14270	Washer - Plain	C, D	2
138	B2E-100	Gasket	C, D	3
139	M600E-300	Flange - Packing	C, D	1
140	X-3550	Screw	C, D	2
141	X-1801-E	Nut	All	6
142	X-202	Washer - Lock	All	4
143	X-1954-B	Stud - Rear	All	4
144	16EB-202	Cover - Fuel Pump Hole (Rear)	All	1
145	16EV-201	Gasket - Fuel Pump Hole (Rear)	All	1
146	*	Cover - Timing Hole	*	1
147	*	Washer - Lock	*	1
148	*	Screw	*	1
149	7X-X-4342	Stud	All	33
150	3X-X-1353	Washer - Plain	All	33
151	3X-X-1803-E	Nut	All	33
152	X-3940	Screw	C, D	3
153	X-203	Washer - Lock	C, D	3
154	W10B-302	Cover - Starter Hole	C, D	1
155	*	Housing, Flywheel	A, B	1
156	*	Washer - Lock	A, B	4
157	*	Screw	A, B	4
158	*	Ring - Dowel	A, B	2
159	*	Stud	A, B	2
160	*	Nut	C, D	1
161	M600B-503	Housing - Flywheel, SAE #3	C, D	4
162	X-19876	Stud	C, D	6
163	X-18239	Nut	C, D	2
164	9SB-200	Ring - Dowel	C, D	2
165	X-4442	Stud	C, D	2

Note: (\*) See Customers' Specification Sheet.

*Caution!*  
 WHEN ORDERING PARTS  
 BE SURE TO LIST  
 MODEL AND SERIAL NUMBER

# CONTINENTAL MOTORS B600 SERIES ENGINE

CODE	
A-Model B371 Engine	C-Model B6371 Engine
B-Model B427 Engine	D-Model B6427 Engine

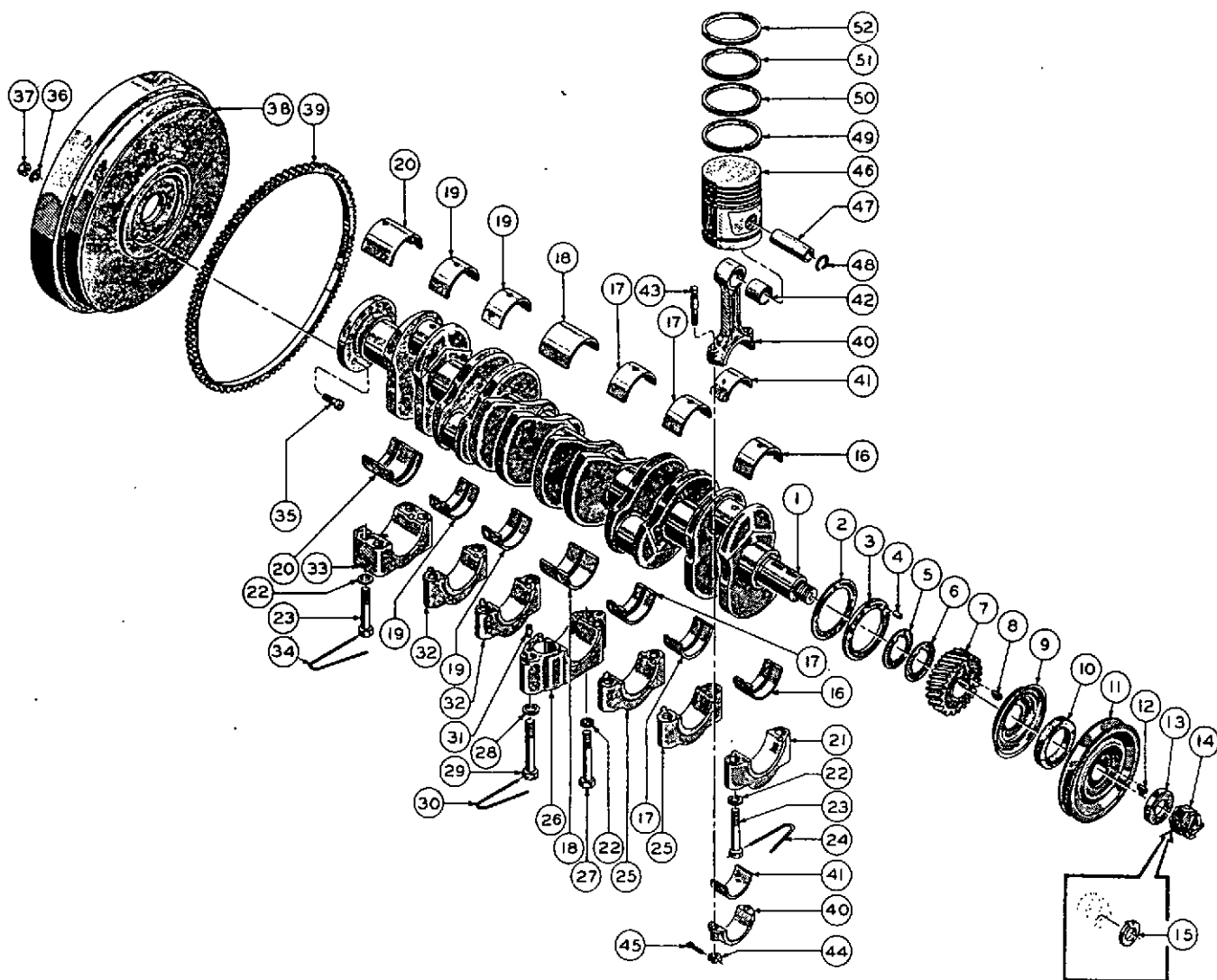


Figure 2. Internal View Engine Parts Group

Index No.	Part Number	Nomenclature	Code	Quantity
1	B600C-501	Crankshaft	B	1
	B600C-500	Crankshaft	A, C	1
	B600C-304	Crankshaft	D	1
2	B600C-202	Washer - Thrust, Crankshaft (Rear)	All	1
3	E604C-200	Washer - Thrust, Crankshaft (Front)	All	1
4	6TG-101	Pin - Crankshaft Thrust	All	3
5	20RC-215	Shim - Thrust, Crankshaft (.002 in.)	All	UAR*
6	20RC-216	Shim - Thrust, Crankshaft (.008 in.)	All	UAR*
7	E604H-300	Gear - Timing, Crankshaft	All	1
8	X-531	Key - Morton	A, B, C	1
	X-526-A	Key - Morton	D	1
9	K600C-201	Thrower - Oil, Crankshaft	All	1
10	M600K-212	Seal - Dust	A, B	1
11	M600K-334	Pulley - Fan Drive	A, B	1
	B600K-300	Pulley - Fan Drive	C	1
	B600K-400	Pulley - Fan Drive	D	1
12	X-531	Key - Morton	A, B, C	1
13	B405C-201	Washer - Crankshaft Starting Jaw	A, B	1
	X-14275	Washer - Crankshaft Starting Jaw	C	1
	X-14283	Washer - Crankshaft Starting Jaw	D	1

Notes: (\*) Use as required.

## CODE

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## CONTINENTAL MOTORS B600 SERIES ENGINE

Figure 2. Internal View Engine Parts Group (Continued)

Index No.	Part Number	Nomenclature	Code	Quantity
14	K600-O-200	Jaw - Starting, Crankshaft	A, B	1
	M600-O-200	Jaw - Starting, Crankshaft	C	1
	B600-O-201	Jaw - Starting, Crankshaft	D	1
15	B600C-203	Lock - Nut	C	1
	X-14266	Lock - Nut	D	1
16	B600G-3371	Bearing - Main, Crankshaft (Front - Upper and Lower)	All	1
17	B600G-3391	Bearing - Main, Crankshaft (Intermediate Front - Upper and Lower)	All	2
18	B600G-3411	Bearing - Main, Crankshaft (Center - Upper and Lower)	All	1
19	B600G-3391	Bearing, Main, Crankshaft (Intermediate Rear - Upper and Lower)	All	2
20	B600G-3431	Bearing - Main, Crankshaft (Rear - Upper and Lower)	All	1
21	E604B-301	Cap - Bearing, Crankshaft (Front)	All	1
22	3X-B2B-110	Washer - Plain, 1/2 in.	All	16
23	X-3514	Screw	All	14
24	X-1333-A	Wire - Lock, No. 19 x 10 in. (Front and Intermediate)	All	5
25	E604B-305	Cap - Bearing, Crankshaft (Intermediate Front)	All	2
26	B600B-400	Cap - Bearing, Crankshaft (Center)	All	1
27	X-3508	Screw	All	2
28	X-14179	Washer - Plain	All	1
29	X-3553	Screw	All	1
30	X-1333-T	Wire - Lock	All	1
31	F600B-247	Dowel	All	2
32	E604B-305	Cap - Bearing, Crankshaft (Intermediate Rear)	All	2
33	B600B-300	Cap - Bearing, Crankshaft (Rear)	All	1
34	X-1333-H	Wire - Lock, No. 19 x 12 in. (Rear)	All	2
35	20RC-217	Bolt	C, D	6
	X-5938	Bolt	A, B	6
36	X-296	Washer - Lock	All	6
37	X-1804-F	Nut	All	6
38	*	Flywheel		1
39	*	Gear - Ring		1
40	E604D-5003	Rod and Cap Assembly (Including Bearings, Bushings, Bolts, and Nuts)	All	6
41	B600G-345	Bearing - Connecting Rod (Upper and Lower)	All	12
42	20RG-230	Bushing - Piston Pin	All	6
43	T427D-201	Bolt - Connecting Rod	All	12
44	B2D-104	Nut	All	12
45	X-602	Pin - Cotter	All	12
46	B427A-410	Piston	B, D	6
	B600A-418	Piston	A, C	6
	**B427A-4101-E	Piston Assembly	B, D	6
	***B427A-4101-A	Piston Assembly	B, D	6
	**B600A-4181-E	Piston Assembly	A, C	6
	***B600A-4181-A	Piston Assembly	A, C	6
47	B600A-201	Pin - Piston	B, D	6
	B600A-203	Pin - Piston	A, C	6
48	B600A-225	Ring - Piston Retaining	All	12
49	T427A-319	Ring - Piston (Bottom Groove - 3/16)	B, D	6
	20RA-334	Ring - Piston (Bottom Groove)	A, C	6
50	T427A-319	Ring - Piston (Fourth Groove - 3/16 Oil Ring)	B	6
	T427A-351	Ring - Piston (Fourth Groove - 3/16 Oil Ring)	D	6
	B600A-304	Ring - Piston (Fourth Groove - 1/4 Oil Ring)	A, C	6

Notes: \*See Customers' Specification Sheet.

\*\*The "E" Piston Assembly includes piston, pin, and retaining lock rings.

\*\*\*The "A" Piston Assembly includes piston, pin, retaining lock rings, and piston rings.

**CONTINENTAL MOTORS B600 SERIES ENGINE**

CODE	
A-Model B371 Engine	C-Model B6371 Engine
B-Model B427 Engine	D-Model B6427 Engine

**Figure 2. Internal View Engine Parts Group (Continued)**

Index No.	Part Number	Nomenclature	Code	Quantity
51	T427A-317	Ring - Piston (Second & Third Groove - 3/32)	B	12
	T427A-317	Ring - Piston (Third Groove - 3/32)	D	6
	B600A-303	Ring - Piston (Third Groove - 1/8 Compression)	A, C	6
52	T427A-314	Ring - Piston (First Groove - 3/32 Chrome)	B	6
	T427A-350	Ring - Piston (Second Groove - 3/32)	D	6
	B600A-310	Ring - Piston (First & Second Grooves - 1/8 Taper Face)	A, C	12
	T427A-323	Ring - Piston (First Groove - 3/32 Chrome)	D	6
	T427A-210	Groove Insert (First Groove) Not Illustrated	B, D	12
	T427A-347	Expander Spring (Fourth Groove) Not Illustrated	D	6
	T427A-348	Expander Spring (Second Groove) Not Illustrated	D	6

*Caution!*  
 WHEN ORDERING PARTS  
 BE SURE TO LIST  
 MODEL AND SERIAL NUMBER

CODE

A-Model B671 Engine C-Model B6371 Engine  
 B-Model B6427 Engine D-Model B6427 Engine

CONTINENTAL MOTORS B600 SERIES ENGINE

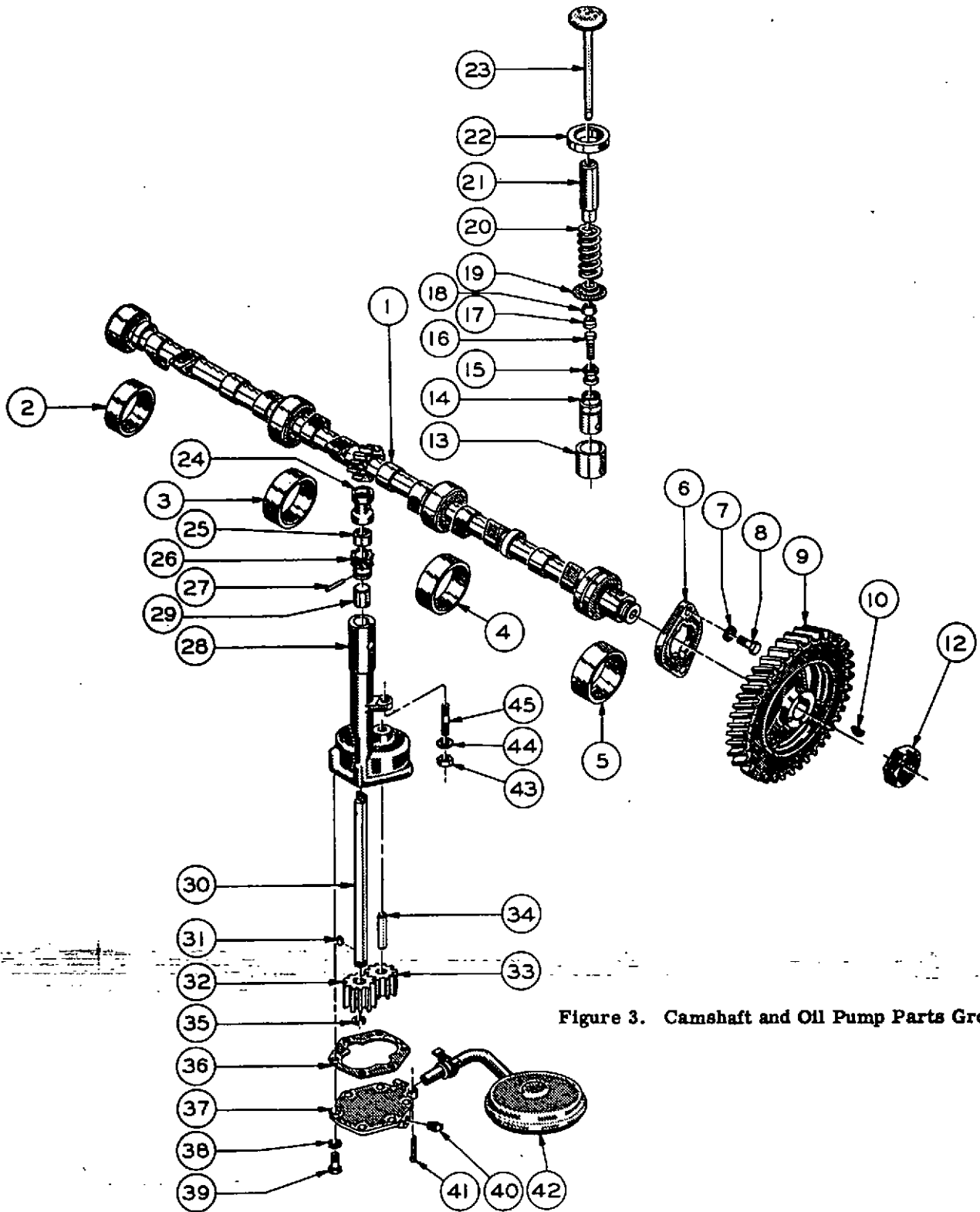


Figure 3. Camshaft and Oil Pump Parts Group

Index No.	Part Number	Nomenclature	Code	Quantity
1	B600I-400	Camshaft	A, B, C	1
	B600I-414	Camshaft	D	1
2	B600G-202	Bushing - Camshaft (Rear)	All	1
3	B600G-201	Bushing - Camshaft (Intermediate Rear)	All	1
4	B600G-201	Bushing - Camshaft (Intermediate Front)	All	1
5	B600G-200	Bushing - Camshaft (Front)	All	1

CONTINENTAL MOTORS B600 SERIES ENGINE

CODE	
A-Model B371 Engine	C-Model B6371 Engine
B-Model B427 Engine	D-Model B6427 Engine

Figure 3. Camshaft & Oil Pump Parts Group (Continued)

Index No.	Part Number	Nomenclature	Code	Quantity
6	B600I-216	Plate - Thrust, Camshaft	All	1
7	X-226	Washer - Lock	All	2
8	X-3941	Screw	All	2
9	B600H-400	Gear - Timing Camshaft	All	1
10	X-507	Key -(Woodruff No. A)	All	1
11	Reserved			
12	X-18294	Nut	All	1
13	M600I-203	Guide - Valve Tappet	All	12
	M600I-2240	Tappet Assembly - Valve	All	12
14	M600I-311	Tappet - Valve (One Required per Assembly)	All	12
15	Y400I-212	Nut - Lock (One Required per Assembly)	All	12
16	Y400I-213	Screw - Adjusting (One Required per Assembly)	All	12
17	B600I-3220	Roto Assembly - Exhaust	C, D	6
18	E604I-202	Lock - Retainer, Valve Spring	All	24
19	B600I-211	Retainer - Valve Spring (Intake)	C, D	6
	B600I-211	Retainer - Valve Spring	A, B	12
20	B600I-325	Spring - Valve	All	12
21	T427I-248	Guide - Valve Stem (Intake)	All	6
	B600I-213	Guide - Valve Stem (Exhaust) Ferrox	All	6
22	B600A-227	Insert - Valve Seat (Exhaust) .010 O.S.	A, B	6
	T427A-218	Insert - Valve Seat (Exhaust) .010 O.S.	C, D	6
23	E604I-300	Valve - Intake	A, B	6
	B600I-313	Valve - Intake	C, D	6
	B600I-305	Valve - Exhaust	A, B	6
	T427I-326	Valve - Exhaust	C, D	6
24	M600L-200	Bushing - Oil Pump Drive Shaft (In Crankcase)	All	1
25	M600L-213	Sleeve - Oil Pump Bumper	All	1
26	M600H-200	Gear - Drive, Oil Pump	All	1
27	X-17084	Pin	All	1
	M600L-4061	Pump Assembly - Oil	All	1
28	M600L-4060	Body Assembly - Oil Pump (Including Body & Bushing)	All	1
29	D600G-274	Bushing	All	1
30	M600L-300	Shaft - Drive, Oil Pump	All	1
31	X-504	Key - (Woodruff No. 5)	All	1
32	M600H-214	Gear - Driver	All	1
33	M600H-215	Gear - Idler	All	1
34	E600L-235	Stud - Oil Pump Idler Gear	All	1
35	D600L-204	Ring - Snap	All	1
36	C400L-231	Gasket	All	1
37	M600L-348	Cover - Oil Pump	All	1
38	X-201	Washer - Lock	All	6
39	X-3107	Screw	All	6
40	Reserved			
41	X-619	Pin - Cotter, 1/8 in.	All	1
42	M600L-313	Float - O - Assembly	All	1
43	X-1802-G	Nut	All	1
44	X-203	Washer	All	1
45	X-19003	Stud	All	1

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CONTINENTAL MOTORS B600 SERIES ENGINE

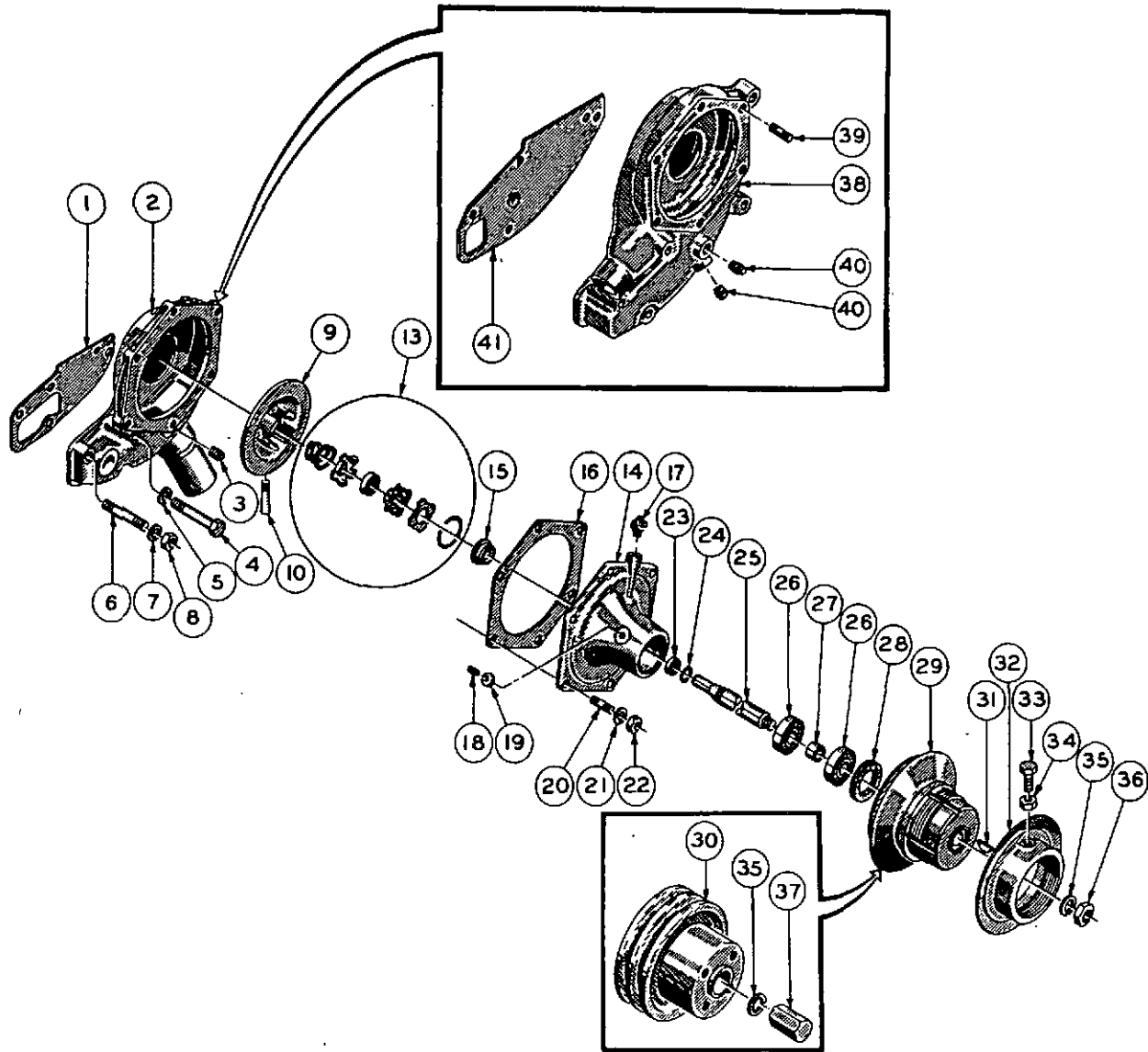


Figure 4. Water Pump Parts Group

Index No.	Part Number	Nomenclature	Code	Quantity
	B600K-50015	Water Pump Complete	C	1
	B600K-50016	Water Pump Complete	D	1
	E604K-4009	Water Pump Complete	A, B	1
1	B600K-331	Gasket	All	1
2	E604K-400	Body - Water Pump	A, B	1
3	X-101	Plug - Pipe, 1/4 in. (ext. head)	A, B	2
4	X-3776	Screw	All	2
5	X-203	Washer - Lock	All	2
6	X-3276	Stud	All	2
7	X-203	Washer - Lock	All	2
8	X-1802-G	Nut	All	1
9	U501K-421	Impeller - Water Pump	All	1
10	X-1794-A	Pin - Grooved	All	1
11, 12	Reserved			
13	U501K-3090	Seal Assembly - Water Pump	All	1

CONTINENTAL MOTORS B600 SERIES ENGINE

CODE

A-Model B371 Engine C-Model B6371 Engine  
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Figure 4. Water Pump Parts Group (Continued)

Index No.	Part Number	Nomenclature	Code	Quantity
14	M600K-4021	Support Assembly	All	1
15	U501G-205	Bushing	All	1
16	M600K-322	Gasket	All	1
17	X-940	Fitting - Grease	All	1
18	F600K-266	Screw - Retaining	All	1
19	X-1800-C	Nut - Lock	All	1
20	X-4032	Stud	A, B	6
21	X-201	Washer - Lock	All	6
22	X-1800-C	Nut	All	6
23	M600K-215	Retainer - Snap Ring	All	1
24	M600K-214	Ring - Snap	All	1
25	B600K-333	Shaft - Drive	A, B, D	1
	B600K-334	Shaft - Drive	C	1
26	X-13077	Bearing - Ball	All	2
27	M600K-203	Spacer	All	1
28	M600K-230	Seal - Dust, Fan Hub	A, B	1
29	M600K-364	Hub - Fan	A, B	1
	E604K-303	Hub - Fan	C	1
30	B600K-305	Hub - Fan	D	1
31	X-599-D	Key - Morton	A, B, D	1
	X-504	Key, Woodruff #A	C	1
32	8SK-308	Flange - Adjusting	A, B	1
33	X-3887	Screw	A, B	1
34	X-1800-C	Nut - Lock	A, B	1
35	X-296	Washer - Lock	All	1
36	X-1804-F	Nut	A, B, C	1
37	B600K-207	Nut	D	1
38	B600K-5004	Body Assembly - Water Pump (Including Body & Studs)	C, D	1
39	X-4032	Stud	C, D	6
40	X-101	Plug - Pipe, 1/4 in. (ext. Head)	C, D	2
	T427K-4050	Thermostat (not illustrated)	A, B	1

*Caution!*

WHEN ORDERING PARTS  
 BE SURE TO LIST  
 MODEL AND SERIAL NUMBER

## SECTION 2

### OVERSIZE AND UNDERSIZE PARTS

To designate a size other than standard, the symbol corresponding to the required oversize or undersize should be listed with the part number and separated with a dash.

Examples:

M600H-200 (Standard)	M600H-200-.010 (Oversize)
M600H-200 (Standard)	M600H-200-.030 (Undersize)

#### OVERSIZE PISTONS

##### Aluminum

.010  
.020  
.030  
.040  
.060

S. F.

#### OVERSIZE PISTON RINGS

.020  
.030  
.040  
.060

#### OVERSIZE PISTON PINS

.003  
.005  
.010

#### UNDERSIZE BEARINGS (MAIN & ROD)

.002  
.010  
.020  
.030  
.060 (may be reworked  
to .040)

#### OVERSIZE GEARS

##### Identification Mark on Gear

.001	①
.002	②
.003	③
.004	④
.005	⑤
.006	⑥

#### UNDERSIZE GEARS

##### Identification Mark on Gear

.001	①
.002	②
.003	③
.004	④
.005	⑤
.006	⑥