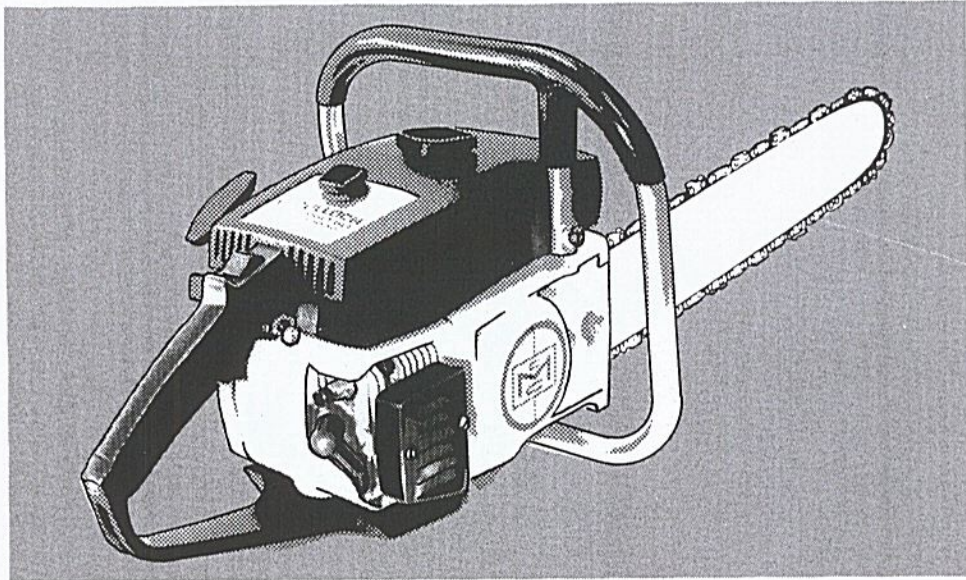


Models	Serial No. Prefix
600438A	11-
600438B	11-
600438D	11-
600438J	11-

# SP 81 CHAIN SAW

## ILLUSTRATED PARTS LIST



APRIL 1973

The policy of McCulloch Corporation is one of continual improvement in design, manufacturing and engineering advancements wherever possible to assure still finer two-cycle power tools. Hence, specifications, equipment, colors, design and manufacturer's suggested list prices are subject to change without notice and McCulloch Corporation reserves the right to make such changes without prior notification or obligation to backfit or supply backfit components for units previously shipped from the factory.

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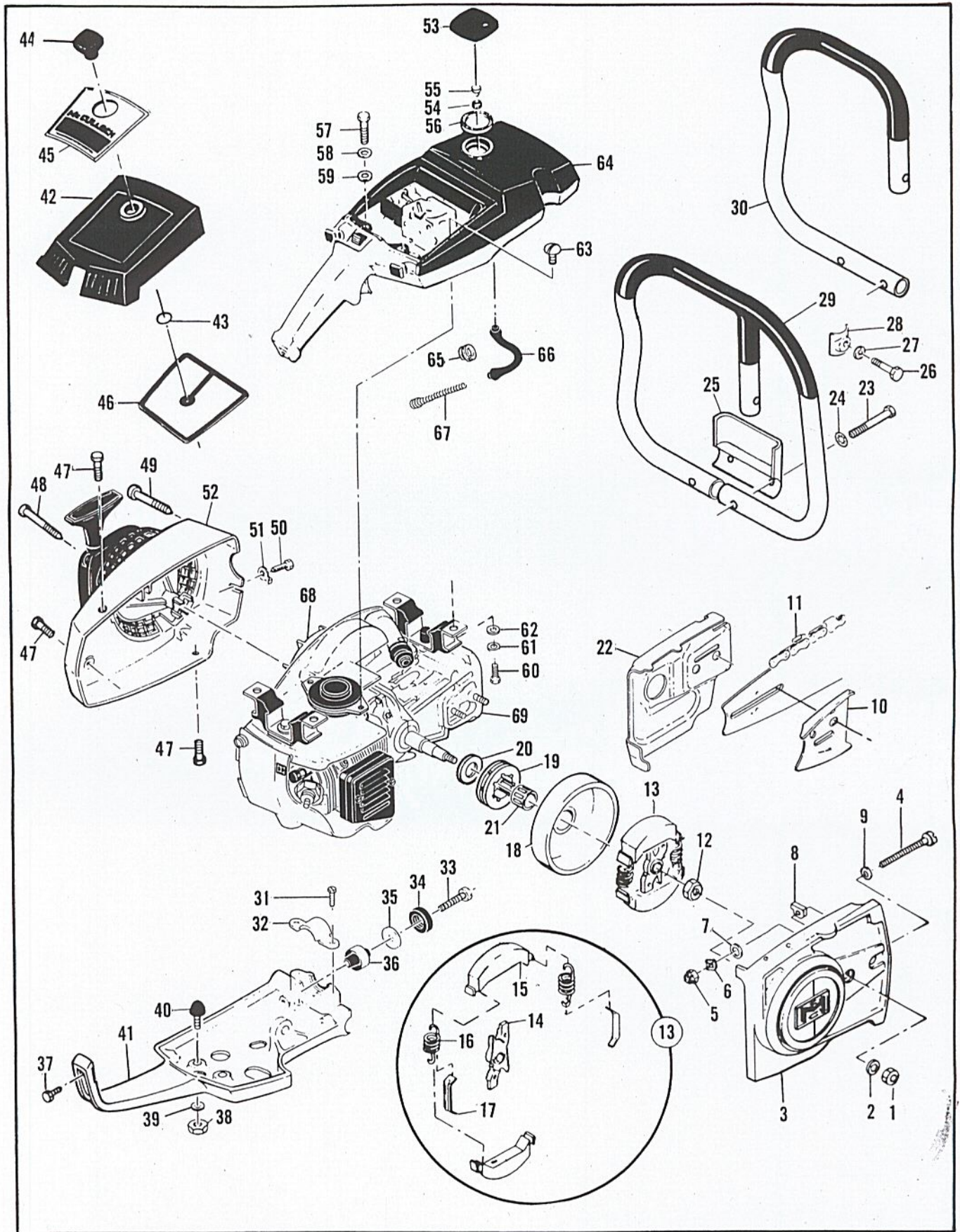


Figure 1. General

Figure 1. General

Item No.	Part Number	Description	Units Per Assy
1	110454	Nut - Hex 5 16-24	2
2	100440	Washer - 5 16	2
3	88581	Clutch Guard Assy	1
4	102144	. Screw - Bar adjusting	1
5	102067	. Nut - Hex 10-24	1
6	110387	. Washer - Wavey	1
7	100002	. Washer - #10	1
8	61705	. Nut - Bar adjusting	1
9	110264	. Washer - 3/16	1
10	64325	Plate - Bar protector	1
11		Bar & Chain Assy	1
12	86113	Nut - Hex 3/8-24 (L.H.)	1
13	87675	Clutch Assy	1
14	87676	. Rotor - Clutch	1
15	67233	. Shoe - Clutch	2
16	83223	. Spring - Clutch	2
17	64583	. Retainer - Clutch spring	2
18	86947	Drum - Clutch	1
19	86344	Sprocket (7-T .375)	1
20	86395	Washer - Sprocket	1
21	110330	Bearing - Sprocket	1
22	84978	Shield - Sawdust	1
23	102433	Screw - Hex hd 10-24 x 1-5/8	2
24	101194	Lockwasher - #10	2
25	84798	Clamp - Frame	1
26	102130	Screw - Hex hd 1/4-20 x 1-1/2	1
27	100153	Lockwasher - 1/4	1
28	63484	Clamp - Frame	1
29	84571	Frame & Grip Assy (D, A)	1
30	87733	Frame & Grip Assy (B, J)	1
31	104950	Screw - Hex hd 10-24 x 5/8 (SEMS)	2
32	83819	Clamp - Lower mount	1
33	110679	Screw - Hex hd 1/4-20 x 2	1
34	84661	Grommet	1
35	110845	Washer - 1/4	1
36	85898	Mount - Lower	1
37	101977	Screw - Fil hd 1/4-20 x 3/4	1

Item No.	Part Number	Description	Units Per Assy
38	105367	Nut - Hex 10-24	2
39	100240	Lockwasher - #10	2
40	83111	Bumper	2
41	86075	Brace - Frame	1
42	85850	Cover Assy - Air cleaner	
43	110565	. Ring - Retaining	1
44	68529	. Knob - Cover	1
45	89662	Nameplate	1
46	85387	Filter - Air	1
47	110741	Screw - Pan hd 10-24 x 1/2	3
48	62978	Screw - Special	2
49	85242	Screw - Special	1
50	102762	Screw - Hex hd 10-24 x 1/2	1
51	69890	Lockplate	1
52		Fan Housing & Starter Assys (See Figure 2)	
53	86451	Cap Assy - Fuel	1
54	86453	. Plug	1
55	53766A	. Valve	1
56	69767	. Gasket	1
57	102388	Screw - Hex hd 10-24 x 5/8	2
58	101194	Lockwasher - #10	2
59	100002	Washer - #10	2
60	102861	Screw - Hex hd 1/4-20 x 5/8	2
61	100153	Lockwasher - 1/4	2
62	100005	Washer - 1/4	2
63	110807	Screw - Pan hd 8-32 x 5/16	2
64		Fuel Tank Assy (See Figure 3)	
65	87826	Clamp - Hose	1
66	69598	Line - Pulse	1
67	67944	Spring - Pulse line	1
68		Flywheel & Ignition System (See Figure 6)	
69		Powerhead & Oiler Assys (See Figure 7)	



**Figure 2. Fan Housing and Starter Assembly**

Item No.	Part Number	Description	Units Per Assy
1	62191A	Insert - Starter handle	1
2	62190A	Handle - Starter	1
3	110646	Screw - Oval hd 8-32 x 1-1/8	3
4	87672	Cover Assy - Starter	1
5	110341	Screw - Hex hd 10-24 x 1/2	1
6	68162	Rope - Starter	1

Item No.	Part Number	Description	Units Per Assy
7	110470	Rivet - Rope	1
8	86405	Drum - Starter	1
9	87680	Spring - Rewind	1
10	86053	Shield - Spring	1
11	83748	Shaft - Starter	1
12	87693	Kit - Fan Housing	1
13	87674	. Guard - Sawdust	1

**Figure 3. Fuel Tank Assembly**

Item No.	Part Number	Description	Units Per Assy
1	110894	Screw - Hex hd 10-24 x 2-1/8	2
2	101194	Lockwasher - #10	2
3	83204	Bracket Assy	1
4		Carburetor Assy (See Figures 4 and 5)	
5	86189	Gasket - Carburetor	1
6	64848	Hose Assy - Fuel	1
7	63932	. Filter - Fuel	1
8	100440	. Washer	1
9	67944	Spring - Hose stiffener	1
10	69629	Boot - Carburetor needle	
11	86273	Screw - Idle speed adjustment	1
12	69594	Pivot - Oiler lever	1
13	69781	Spring - Oiler lever	1
14	69825	Lever Assy - Oiler	1
15	105048	Washer - 3/16	1
16	69802	Rod - Oiler	1
17	105673	Pin - Roll 3/32 x 9/16	2
18	63044	Button - Oiler	1

Item No.	Part Number	Description	Units Per Assy
19	69632	Rod - Throttle	1
20	110378	Pin - Roll 3/16 x 15/16	1
21	87178	Spring - Throttle return	1
22	88796	Trigger	1
23	110537	Screw - Fil hd 8-36 x 1/2	1
24	69630	Button - Choke	1
25	69631	Rod - Choke	1
26	69597	Boot - Control rod	2
27	87883	Grip - Handle	1
28	85846	Tank Assy - Fuel	
29	69600	. Nipple - Pulse line	1
30	84272	Bumper - Mount	2
31	69043	Snubber - Rod	1
32	103672	Screw - Fil hd 8-32 x 1/2 (SEMS)	1
33	83661	Wire Assy - Stop switch	1
34	62451	Contact - Switch	1
35	62950A	Base - Switch	1
36	68846	Button - Switch	1
37	85451	Latch Assy - Throttle	1

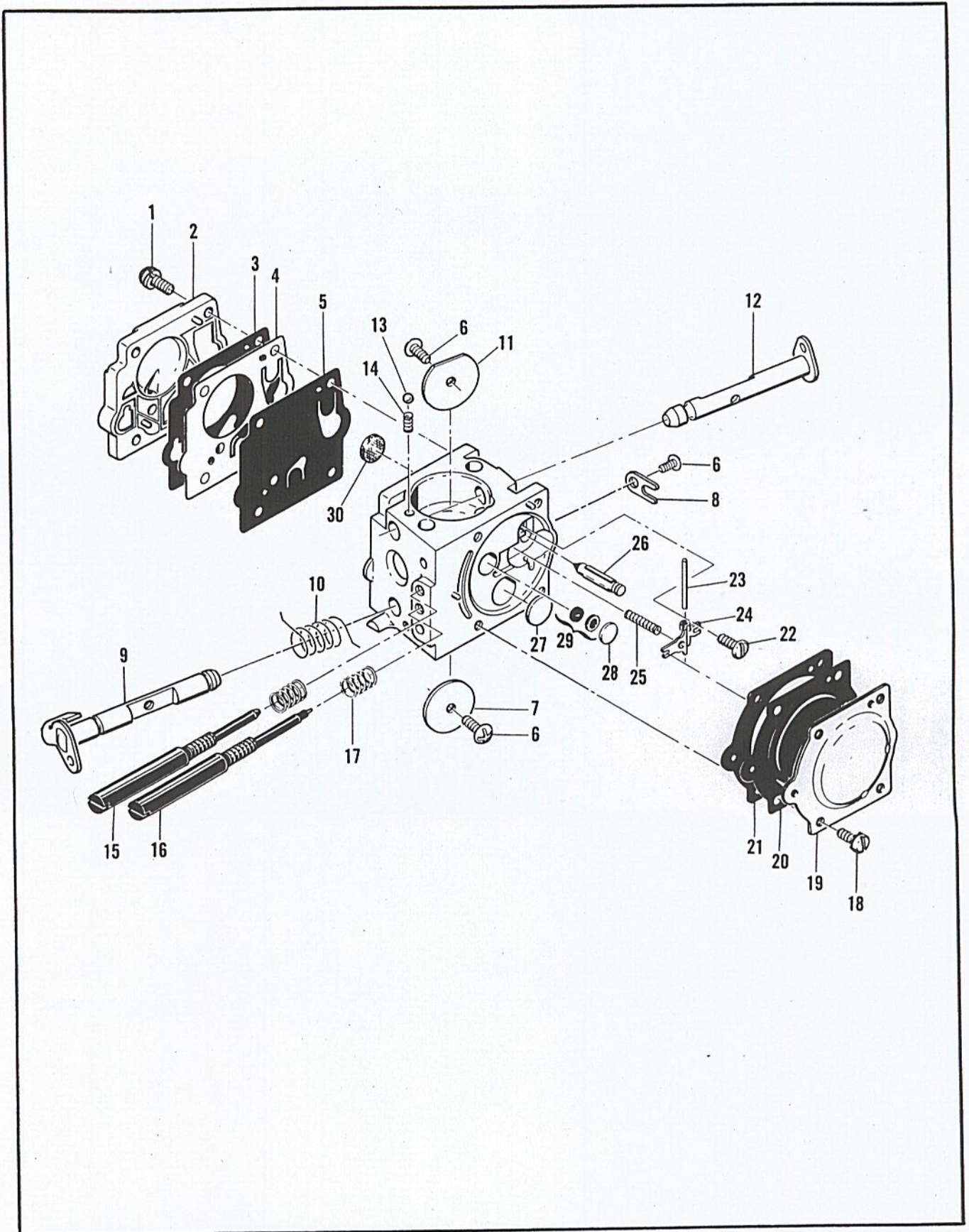


Figure 4. Carburetor Assembly

Figure 4. Carburetor Assembly

Item No.	Part Number	Description	Units Per Assy
	87821	Carburetor Assy	1
1	67501	. Screw - Pump cover	4
2	88731	. Cover - Pump	1
3	*67495	. Gasket - Cover	1
4	*67498	. Diaphragm - Check valve	1
5	*83114	. Diaphragm - Fuel pump	1
6	*47690	. Screw - Plate	3
7	83762	. Plate - Throttle	1
8	67489	. Clip - Shaft	1
9	85980	. Shaft Assy - Throttle	1
10	85981	. Spring - Throttle return	1
11	67490	. Plate - Choke	1
12	67488	. Shaft Assy - Choke	1
13	*100302	. Ball - Choke friction	1
14	*67504	. Spring - Choke friction	1
15	*85979	. Needle - High speed	1
16	*85982	. Needle - Idle	1

Item No.	Part Number	Description	Units Per Assy
17	*67502	. Spring - Needle	2
18	70798	. Screw - Diaphragm	4
19	83761	. Cover - Diaphragm	1
20	*67499	. Diaphragm - Metering	1
21	*67496	. Gasket - Diaphragm	1
22	*67500	. Screw - Lever pin	1
23	*67508	. Pin - Lever	1
24	*67509	. Lever - Inlet	1
25	*67503	. Spring - Lever	1
26	*67491	. Valve - Needle	1
27	*71690	. Plug - 3/8	1
28	*69506	. Plug - 5/16	1
29	83758	. Kit - Valve & Seat Assy	1
30	*67507	. Screen - Fuel	1
	*67482	Gasket Set	
	85987	Repair Kit	

\*Indicates parts included in Repair Kit, P/N 85987

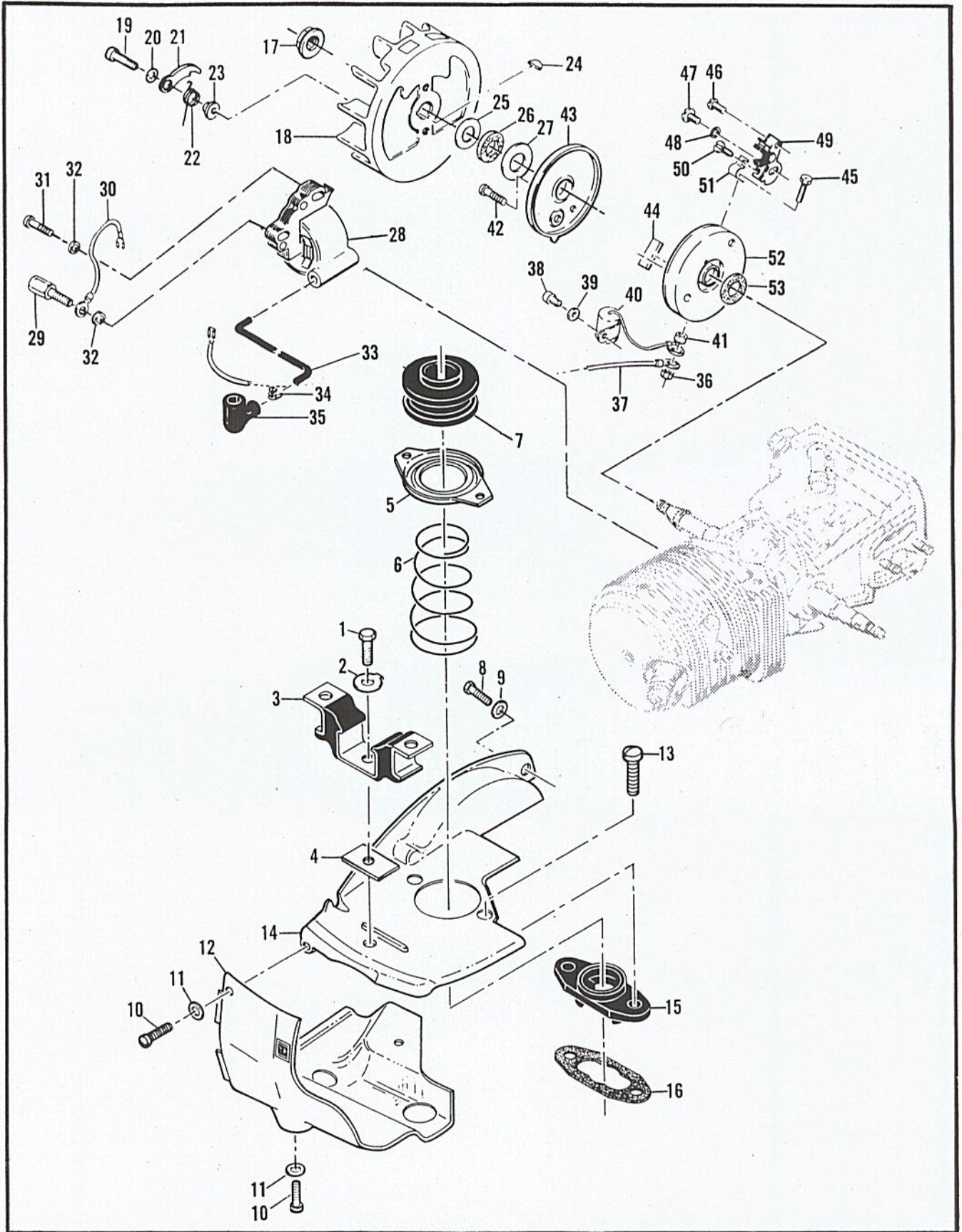


Figure 5. Flywheel and Ignition System



Figure 5. Flywheel and Ignition System

Item No.	Part Number	Description	Units Per Assy
1	83811	Screw - Special	1
2	69924	Lockplate	1
3	87814	Mount - Rear	1
4	84619	Insulator	1
5	86175	Clamp Assy - Boot	1
6	86190	Spring - Ground	1
7	88834	Boot - Third port	1
8	110776	Screw - Fil hd 8-32 x 3/8	1
9	100057	Lockwasher - #8	1
10	102500	Screw - Pan hd 10-24 x 1/2	3
11	100002	Washer - #10	3
12	86314	Shroud - Lower	1
13	104396	Screw - Pan hd 10-24 x 3/4	2
14	88835	Shroud - Upper	1
15	87844	Insulator - Inlet	1
16	88740	Gasket - Insulator	1
17	110703	Nut - Hex 3/8-24	1
18	86068	Flywheel Assy	1
19	110713	Screw - Skt hd 10-24 x 7/8	2
20	83241	Washer - Special	2
21	67546	Pawl - Starter	2
22	67545	Spring - Pawl	2
23	67547	Pivot - Pawl	2
24	103879	Key - Woodruff	1
25	67057	Washer - Thrust	1
26	67056	Seal - Breaker box cover	1
27	67054	Washer - Thrust	1
28	87246	Coil & Lamination Assy	1

Item No.	Part Number	Description	Units Per Assy
29	83512	Stud - Special	1
30	85798	Wire Assy - Ground	1
31	103947	Screw - Hex hd 10-24 x 1 (SEMS)	1
32	100002	Washer - #10	2
33	50120	Wire Assy - Spark plug	1
34	55061	Connector	1
35	85758	Boot	1
36	100298	Nut - Hex 6-32	1
37	85796	Wire Assy - Primary	1
38	103672	Screw - Fil hd 8-32 x 1/2 (SEMS)	1
39	100080	Washer - #8	1
40	85358	Condenser	1
41	62365	Spacer - Breaker box	1
42	110584	Screw - Pan hd 8-32 x 3/4	1
43	62362	Cover - Breaker box	1
44	54184	Wiper - Cam	1
45	110346	Screw - Hex hd 6-32 x 3/4	1
46	110811	Screw - Pan hd 8-32 x 3/8	1
47	110445	Screw - Truss hd 8-32 x 3/8	1
48	105976	Washer - #8	1
49	66231	Breaker Assy	1
50	110706	Screw - Pan hd 6-32 x 7/16 s/t	1
51	83126	Strap - Conduction	1
52	84329	Box - Breaker	1
53	67051	Seal - Breaker box	1

### Accessories

Part Number	Description
84597	Baffle - Spark arrester
86218	Kit - Preheater
86330	Kit - Spike
86419	Guide - Timing
63746	Scrench
63097	Spark Plug - AC CS 45T
65778	Spark Plug - AC CS 41T
62827	Wrench - Screwdriver (D,J)
83235	Wrench - Screwdriver (B)
85968	Guard - Hand
87839	Adapter - Bar mounting
85726	Manual - Owner's (A,D)

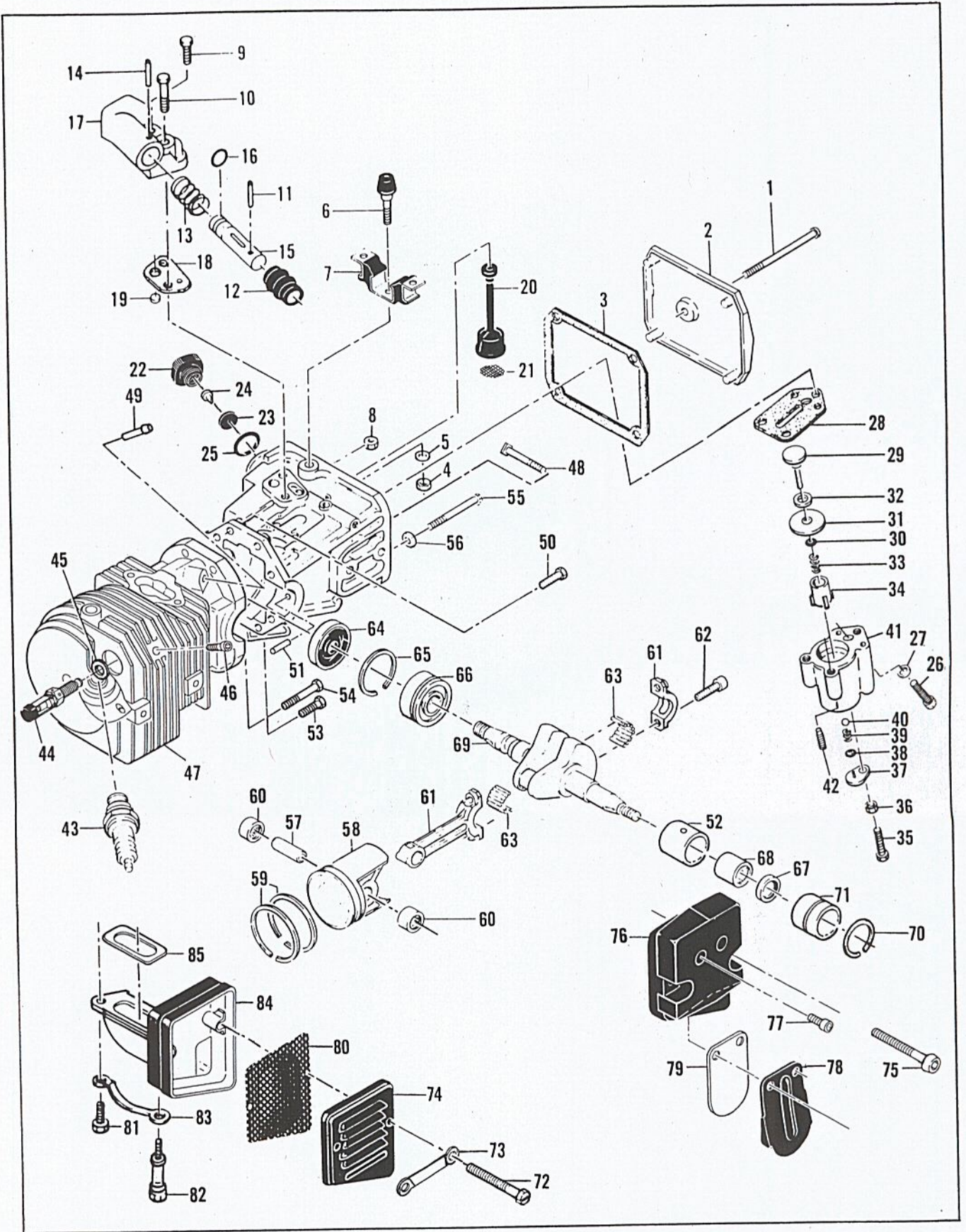


Figure 6. Powerhead and Oiler Assembly

Figure 7. Powerhead and Oiler Assembly

Item No.	Part Number	Description	Units Per Assy
1	110291	Screw - Pan hd 10-24 x 2-5/8	1
2	86304	Cover - Oil tank	1
3	86306	Gasket - Cover	1
4	101143	Nut - Hex 1/4-20	1
5	102523	Washer - 1/4	1
6	69832	Bumper - Front	1
7	87813	Mount - Front	1
8	100955	Nut - Hex 8-32	1
9	110623	Screw - Fil hd 8-32 x 1/2	1
10	105245	Screw - Fil hd 8-32 x 1 (SEMS)	1
11	105673	Pin - Roll 3/32 x 9/16	1
12	69586	Boot - Plunger	1
13	69585	Spring - Plunger	1
14	101556	Pin - Roll 1/8 x 5/8	1
15	69584	Plunger - Pump	1
16	101056	"O" Ring	1
17	69582	Body - Oil pump	1
18	62230	Gasket - Oil pump	1
19	62909	Valve - Oiler	1
20	62123B	Hose Assy - Oil	1
21	51505	. Screen - Hose	1
22	87270	Cap - Oil tank	1
23	87269	. Retainer - Valve	1
24	86402	. Valve	1
25	101148	"O" Ring	1
26	110713	Screw - Skt hd 10-24 x 7/8	1
27	24236	Washer - Special	1
28	86188	Gasket - Pump	1
	83786	Pump Assy - Pulse	1
29	60260A	. Piston Assy - Pump	1
30	104001	. "O" Ring	1
31	86182	. Ring - Piston	1
32	60937	. Washer - Teflon	1
33	60259	. Spring - Piston	1
34	62227	. Sleeve - Adjustment	1
35	110386	. Screw - Hex hd 8-32 x 1	1
36	100251	. Nut - Hex 8-32	1
37	62407	. Cover - Outlet valve	1
38	106104	. "O" Ring	1
39	62885A	. Spring - Outlet valve	1
40	102809	. Ball - Outlet valve	1
41	83787	. Body Assy - Pump	1
42	110643	. Screw - Set 8-32 x 7/16	1
43	63432	Spark Plug - AC CS 42T	1
44	87866	Valve - DSP	1

Item No.	Part Number	Description	Units Per Assy
45	85505	Washer - Valve	1
46	110681	Screw - Skt hd 10-24 x 1/4	1
47	87296	Crankcase Assy	1
48	62065	. Bolt - Bar mounting	2
49	69600	. Nipple - Pulse line	1
50	110288	. Screw - Hex hd 8-32 x 3/4	2
51	110851	. Pin - Dowel	1
52	87152	. Insert - Bearing	1
53	110288	Screw - Hex hd 8-32 x 3/4	1
54	110644	Screw - Hex hd 8-32 x 1-1/2	1
55	62105	Screw Assy - Sealing	4
56	62842	. Washer - Sealing	4
57	69020	Pin - Piston	1
58	87791	Piston Assy	1
59	87854	. Ring Set - Piston	1
60	110590	. Bearing - Needle	2
61	85237	Connecting Rod Assy	1
62	61627A	. Screw - Special	2
63	85246	. Roller - (Set of 22)	1
64	61618	Seal - Oil	1
65	63464	Ring - Snap	1
66	63429B	Bearing - Ball	1
67	110260	Seal - Oil	1
68	104357	Bearing - Needle	1
69	86193	Crankshaft	1
70	63699	Ring - Bearing insert	1
71	63701	Insert - Bearing	1
72	103353	Screw - Hex hd 10-24 x 1-1/2 (A,B,D)	2
73	86050	Lockplate (A,B,D)	1
74	84603	Cover - Muffler (B, D, A)	1
75	110861	Screw - Skt hd 10-24 x 1-1/2 (J)	2
76	84581	Kit - Cover & Valve Assy (J)	1
77	110472	. Screw - Skt hd 8-32 x 5/16 (J)	2
78	87193	. Stop - Reed (J)	1
79	85585	. Valve - Reed (J)	1
80	84580	Baffle - Muffler	1
81	110529	Screw - Hex hd 10-24 x 1/2	1
82	84578	Screw - Special	1
83	84579	Lockplate	1
84	84572	Body & Duct Assy	1
85	84577	Gasket - Muffler	1