

# ILLUSTRATED PARTS LIST

MODELS	SERIAL NUMBER PREFIX	MODELS	SERIAL NUMBER PREFIX
600438A	11-, 12-	600438E	14-
600438B	11-, 12-, 14-	600438J	11-, 12-
600438D	11-, 12-, 14-		

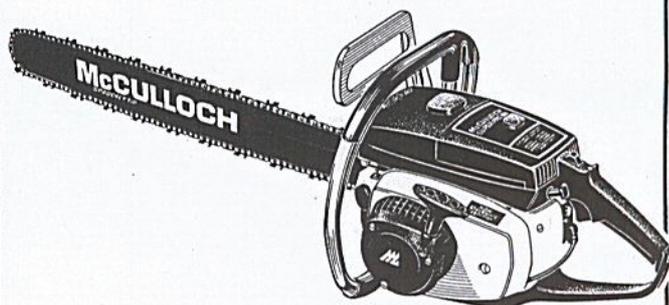
Super Pro 81 chain saws are identified by a model number (600438) followed by a suffix letter (A, B, D, E or J) stamped on the identification plate attached to the saw. Suffix letters denote variations in parts or assemblies in the manufacture of the saw.

Part numbers listed in this IPL which have a suffix letter or letters following the description, indicate the part is used only on the model identified by the letter or letters.

Part numbers and descriptions without suffix letter or letters apply to all models of the Super Pro 81 chain saw.

The policy of McCulloch Corporation is one of continual improvement in design, manufacturing and engineering advancement 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.

## SUPER PRO 81 Chain Saw



### MARCH 1976

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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		CHAIN BRAKE Assy (See Figure 2)	
4	64325	Plate - Bar protector	1
5		Bar & Chain	
6	86113	Nut - Hex 3/8-24 (L.H.)	1
7	87675	Clutch Assy	1
8	89438	. Rotor - Clutch	1
9	67233	. Shoe - Clutch	2
10	83223	. Spring - Clutch	2
11	64583	. Retainer - Clutch spring	2
12	86942	Kit - Drum & Sprocket (7-T .375)	1
13	86344	. Sprocket	1
14	86958	. Washer - Sprocket	1
15	110330	Bearing - Sprocket	1
16	84978	Shield - Sawdust	1
17	102433	Screw - Hex hd 10-24 x 1-5/8	2
18	101194	Lockwasher - #10	2
19	84798	Clamp - Frame	1
20	102130	Screw - Hex hd 1/4-20 x 1-1/2	1
21	100153	Lockwasher - 1/4	1
22	63484	Clamp - Frame	1
23	91632	Frame & Grip Assy (D)	1
24	87733	Frame & Grip Assy (B,E)	1
25	104950	Screw - Hex hd 10-24 x 5/8	2
26	83819	Clamp - Lower mount	1
27	110679	Screw - Hex hd 1/4-20 x 2	1
28	84661	Grommet	1
29	110845	Washer - 1/4	1
30	85898	Mount - Lower	1

Item No.	Part Number	Description	Units Per Assy
31	105722	Screw - Fil hd 1/4-20 x 1-3/8	1
32	-90986	Brace - Frame	1
33	89403	. Bumper	2
34	-85850A	Cover Assy - Air cleaner	1
35	110565	. Ring - Retaining	1
36	68529	. Knob - Cover	1
37	-91515	Nameplate	1
38	85387	Filter - Air	1
39	110741	Screw - Pan hd 10-24 x 1/2	3
40	-87871	Screw - Special	3
41	102762	Screw - Hex hd 10-24 x 1/2	1
42	69890	Lockplate	1
43		Fan Housing & Starter Assy (see Figure 3)	
44	89322	Cap Assy - Fuel	1
45	69767	. Gasket	1
46	102388	Screw - Hex hd 10-24 x 5/8	2
47	101194	Lockwasher - #10	2
48	100002	Washer - #10	2
49	102861	Screw - Hex hd 1/4-20 x 5/8	2
50	100153	Lockwasher - 1/4	2
51	100005	Washer - 1/4	2
52	110807	Screw - Pan hd 8-32 x 5/16	2
53		Fuel Tank Assy (see Figure 4)	2
54	87826	Clamp - Hose	1
55	69598	Line - Pulse	1
56	-67944	Spring - Hose	
57		Flywheel & Ignition System (see Figure 8)	
58		Powerhead & Oiler Assys (see Figure 9)	

Part numbers which have changed since the previous printing of the illustrated parts list covering these saws, are indicated by a dash (-) preceding the new part number.

Part numbers which have one or more dots (.) preceding their description may be ordered individually but they are also included in the kit or assembly whose description begins directly above the dot(s).

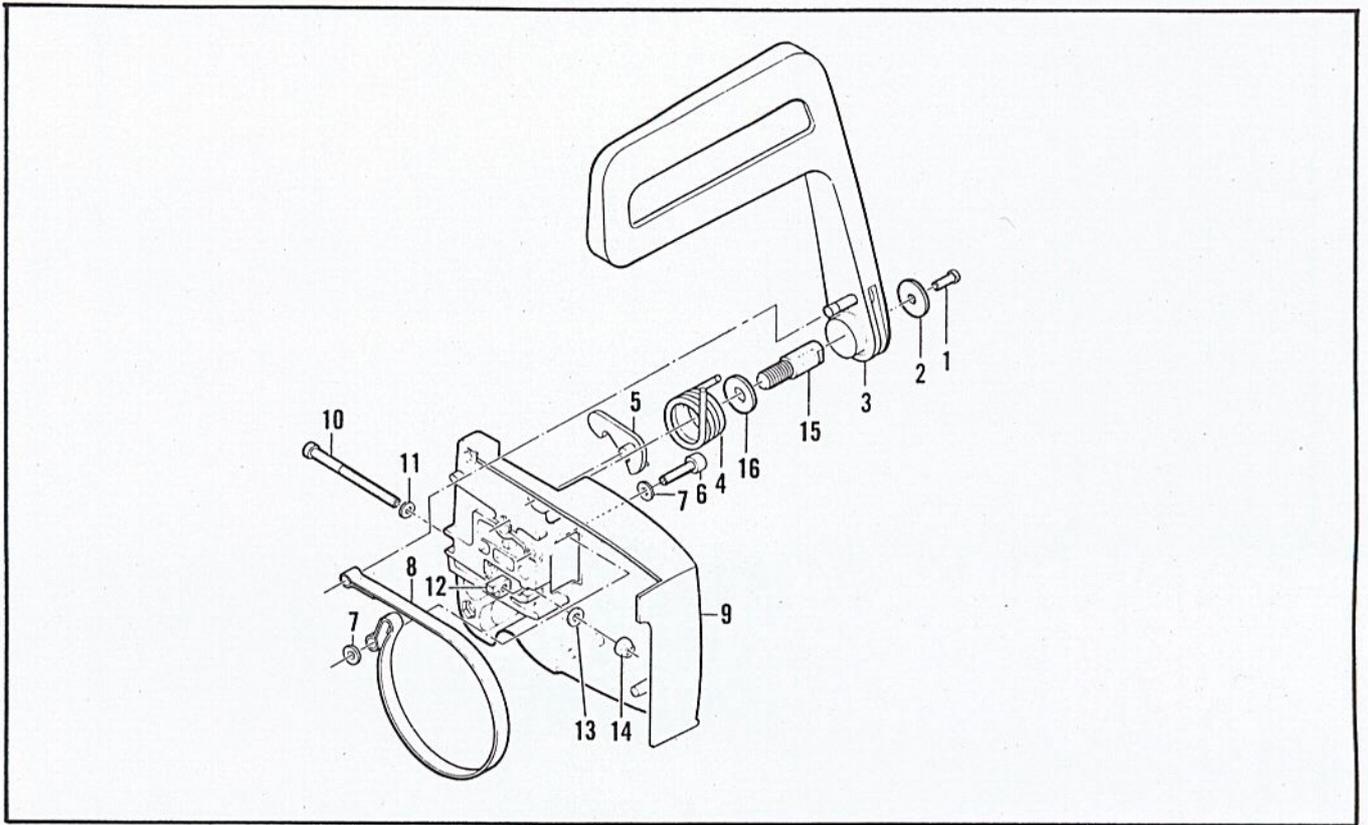


Figure 2. Chain Brake Assembly.

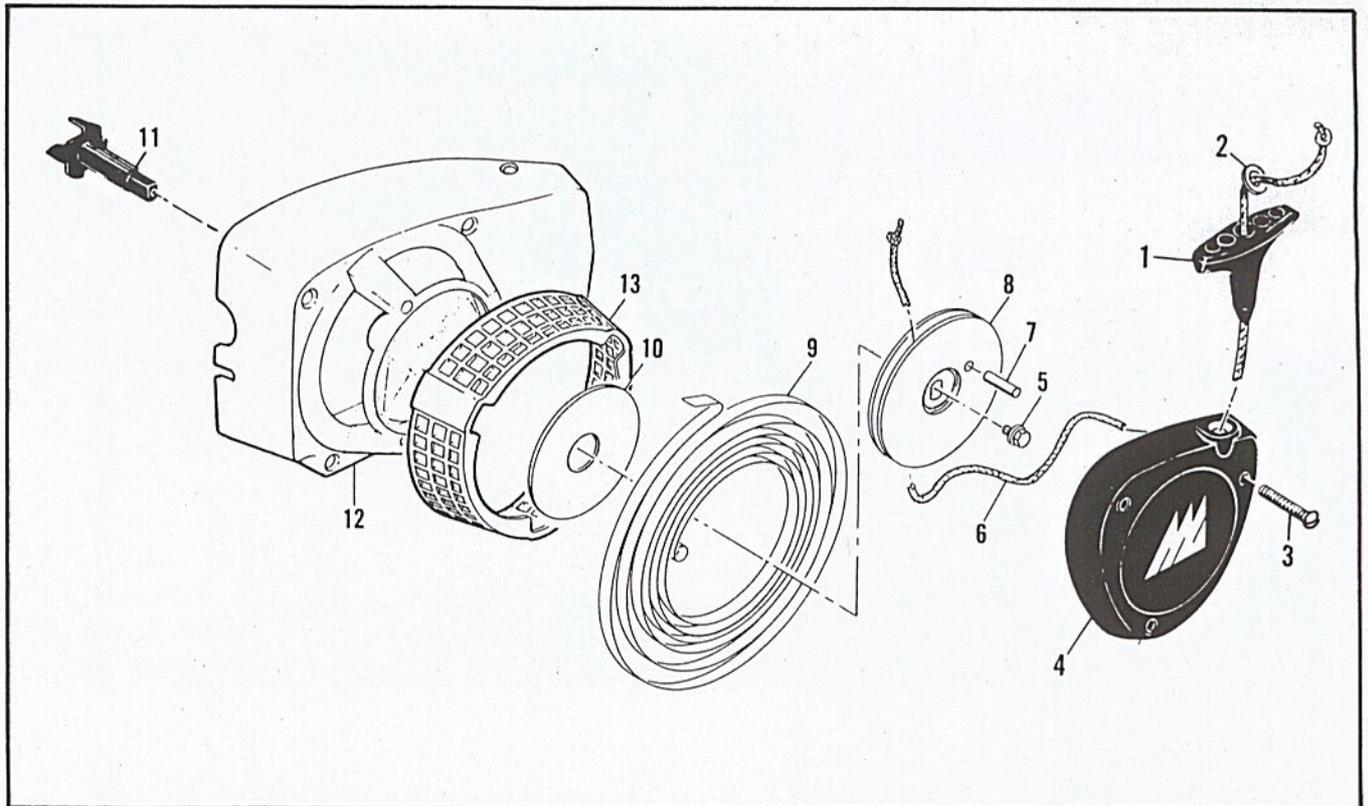


Figure 3. Fan Housing & Starter Assemblies.

Figure 2. Chain Brake Assembly

Item No.	Part Number	Description	Units Per Assy.
	91278	Chain Brake Assembly	1
1	102500	. Screw - Panhd 10-24 x 1/2	1
2	91273	. Washer - Special	1
3	91251	. Lever Assembly	1
		. . Pin Assy - Roller	1
4	91239	. Spring	1
5	-91235A	. Latch Assembly	1
6	105738	. Screw - Skthd 1/4-20 x 7/8	1
7	91274	. Washer - Special	2

Item No.	Part Number	Description	Units Per Assy.
8	91238	. Band	1
9	91249	. Housing Assembly	1
10	110527	. . Screw - Filhd 10-24 x 2-3/4	1
11	110264	. . Washer - #10	1
12	61705	. . Nut - Bar adjusting	1
13	100002	. . Washer - #10	1
14	102067	. . Nut - Hex 10-24	1
15	91246	. . Pin - Lever pivot	1
16	91245	. . Washer - Thrust	1

Figure 3. Fan Housing & Starter Assemblies

Item No.	Part Number	Description	Units Per Assy
1	91255	Kit - Starter handle	1
2	105490	. Washer	1
	87667	Fan Housing & Starter Assy	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

Item No.	Part Number	Description	Units Per Assy
6	-87670	. Rope - Starter	1
7	105841	. Pin - Roll	1
8	-87669	. 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

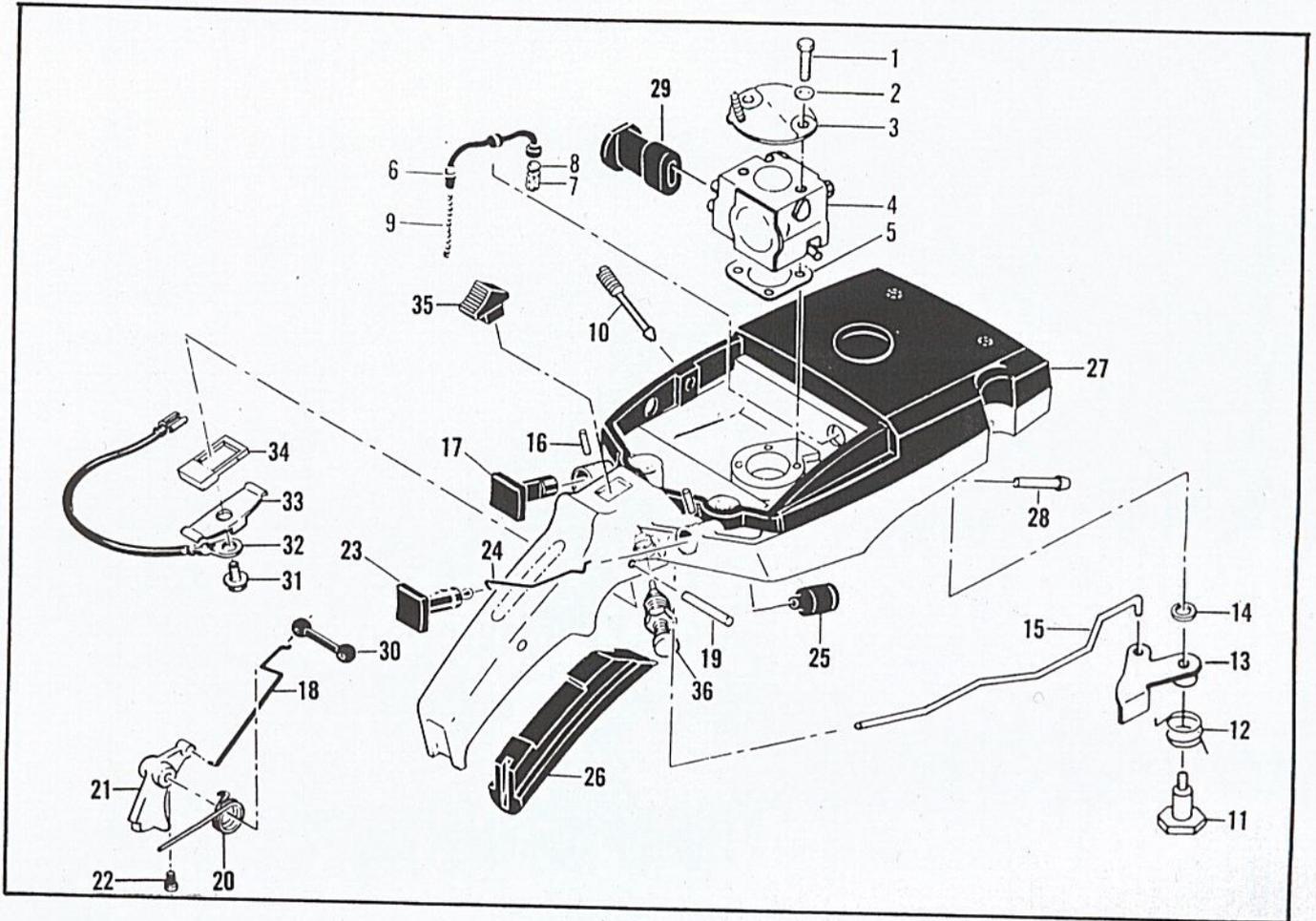


Figure 4. Fuel Tank Assembly.

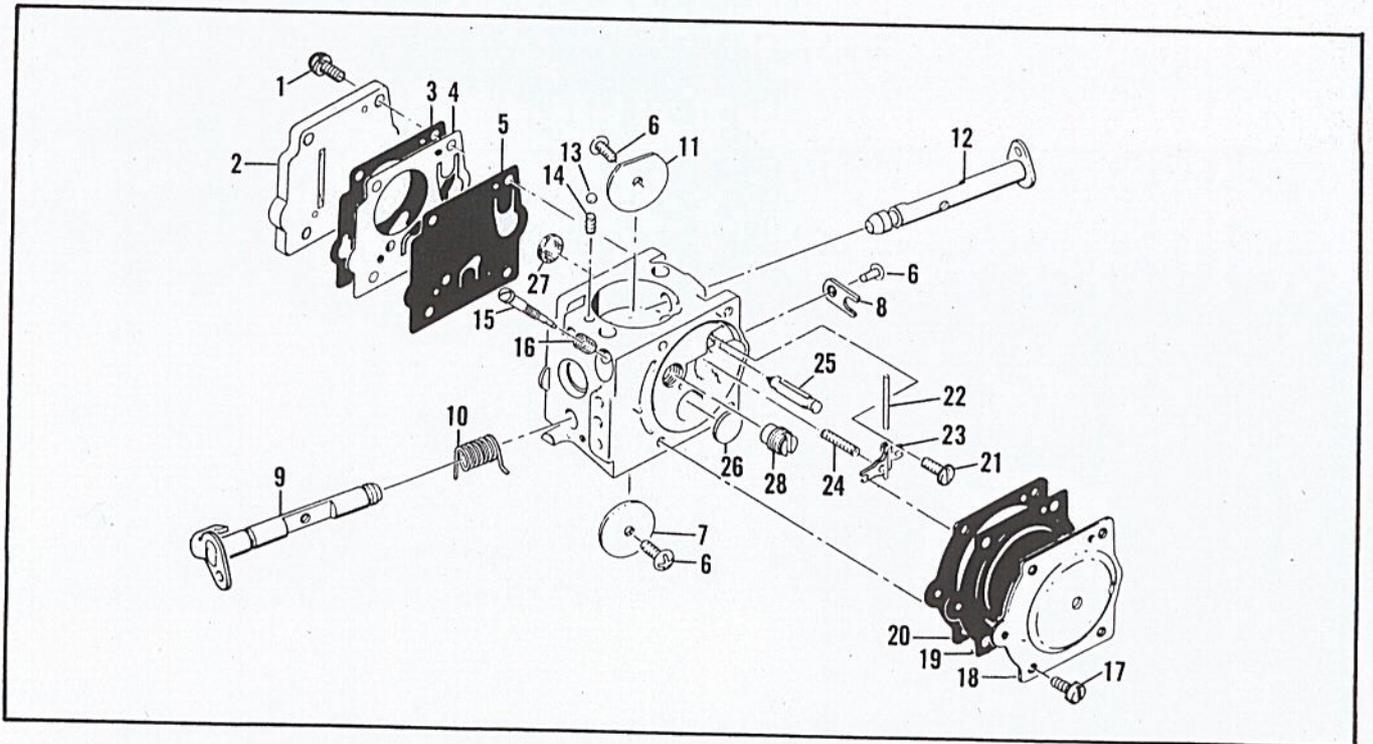


Figure 5. Carburetor Assembly.

Figure 4. Fuel Tank Assembly

Item No.	Part Number	Description	Units Per Assy	Item No.	Part Number	Description	Units Per Assy
1	110894	Screw - Hex hd 10-24 x 2-1/8	2	20	87178	Spring - Throttle return	1
2	101194	Lockwasher - #10	2	21	88796	Trigger	1
3	83204	Bracket Assembly	1	22	110668	Screw - Fil hd 8-36 x 5/8	1
4		Carburetor Assembly (see Figures 5, 6, 7)		23	69630	Button - Choke	1
5	86189	Gasket - Carburetor	1	24	69631	Rod - Choke	1
6	64848	Hose Assy - Fuel	1	25	69597	Boot - Control rod	2
7	63932	. Filter - Fuel	1	26	89400	Grip - Handle	1
8	100440	. Washer	1	27	①89880	Tank Assy - Fuel	1
9	67944	Spring - Hose	1		②87888A	Tank Assy - Fuel	1
10	86273	Screw - Idle speed	1	28	69600	. Nipple - Pulse line	1
11	69594	Pivot - Oiler lever	1	29	③69629	Boot - Carburetor controls	1
12	69781	Spring - Oiler lever	1		④85901	Boot - Carburetor controls	1
13	69825	Lever Assy - Oiler	1	30	69043	Snubber - Rod	1
14	105048	Washer - 3/16	1	31	110706	Screw - Fil hd 8-16 x 1/2 (SEMS)	1
15	69802	Rod - Oiler	1	32	83661	Wire Assy - Stop switch	1
16	105673	Pin - Roll 3/32 x 9/16	2	33	62451	Contact - Switch	1
17	63044	Button - Oiler	1	34	62950A	Base - Switch	1
18	69632	Rod - Throttle	1	35	68846	Button - Switch	1
19	110378	Pin - Roll 3/16 x 15/16	1	36	85451	Latch Assy - Throttle	1

- ① Used on models with serial numbers prefixed 11-, 12-
- ② Used on models with serial numbers prefixed 14-
- ③ Used on models with Carburetor Assy, P/N 87821 (Figure 6)
- ④ Used on models with Carburetor Assy, P/N 85916 (Figure 7)

Figure 5. Carburetor Assembly

Item No.	Part Number	Description	Units Per Assy.	Item No.	Part Number	Description	Units Per Assy.
	89882	Carburetor Assembly	1	16	*67502	. Spring - Idle	1
1	67501	. Screw - Pump cover	4	17	70798	. Screw - Diaphragm cover	4
2	88731	. Kit - Pump cover	1	18	83761	. Cover - Diaphragm	1
3	**88617	. . Gasket - Cover	1	19	*67499	. Diaphragm - Metering	1
4	*67498	. Diaphragm - Check valve	1	20	**67496	. Gasket - Diaphragm	1
5	*83114	. Diaphragm - Fuel pump	1	21	*67500	. Screw - Lever pin	1
6	*47690	. Screw - Plate	3	22	*67508	. Pin - Lever	1
7	83762	. Plate - Throttle	1	23	*67509	. Lever - Inlet	1
8	67489	. Clip - Shaft	1	24	*67503	. Spring - Lever	1
9	67486	. Shaft Assy - Throttle	1	25	*67491	. Valve - Needle	1
10	85981	. Spring - Throttle return	1	26	*71690	. Plug - 3/8	1
11	67490	. Plate - Choke	1	27	*67507	. Screen - Fuel	1
12	67488	. Shaft Assy - Choke	1	28	90349	Jet - High speed (29)	1
13	*100302	. Ball - Choke friction	1		90350	Jet - High speed (28)	Alt.
14	*67504	. Spring - Choke friction	1		90351	Jet - High speed (26)	Alt.
15	90345	. Needle - Idle mixture	1		*88619	Kit - Gasket	
					88620	Kit - Repair	

- \* Contained in Repair Kit, P/N 88620.
- \*\* Contained in Gasket Kit, P/N 88619.

# SUPER PRO 81

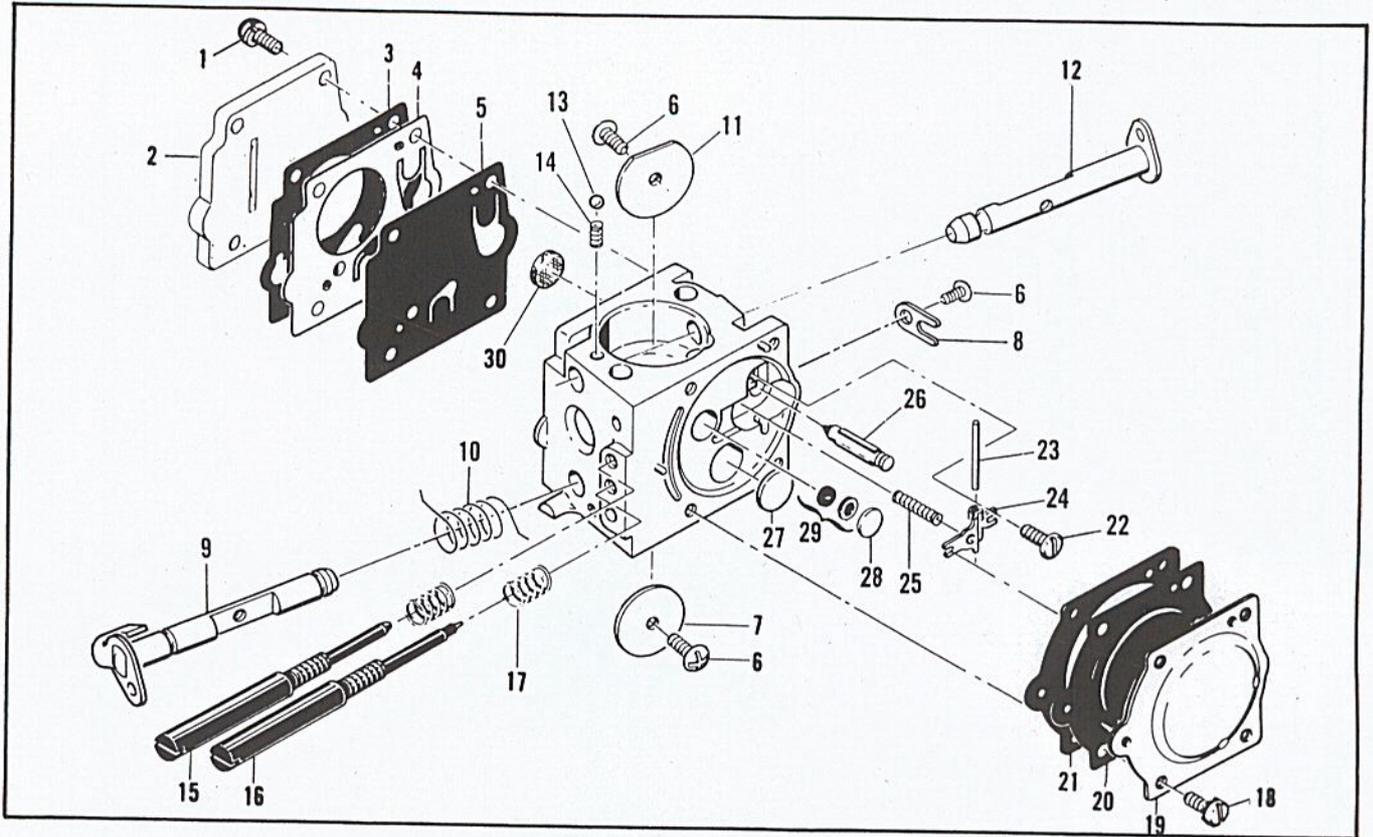


Figure 6. Carburetor.

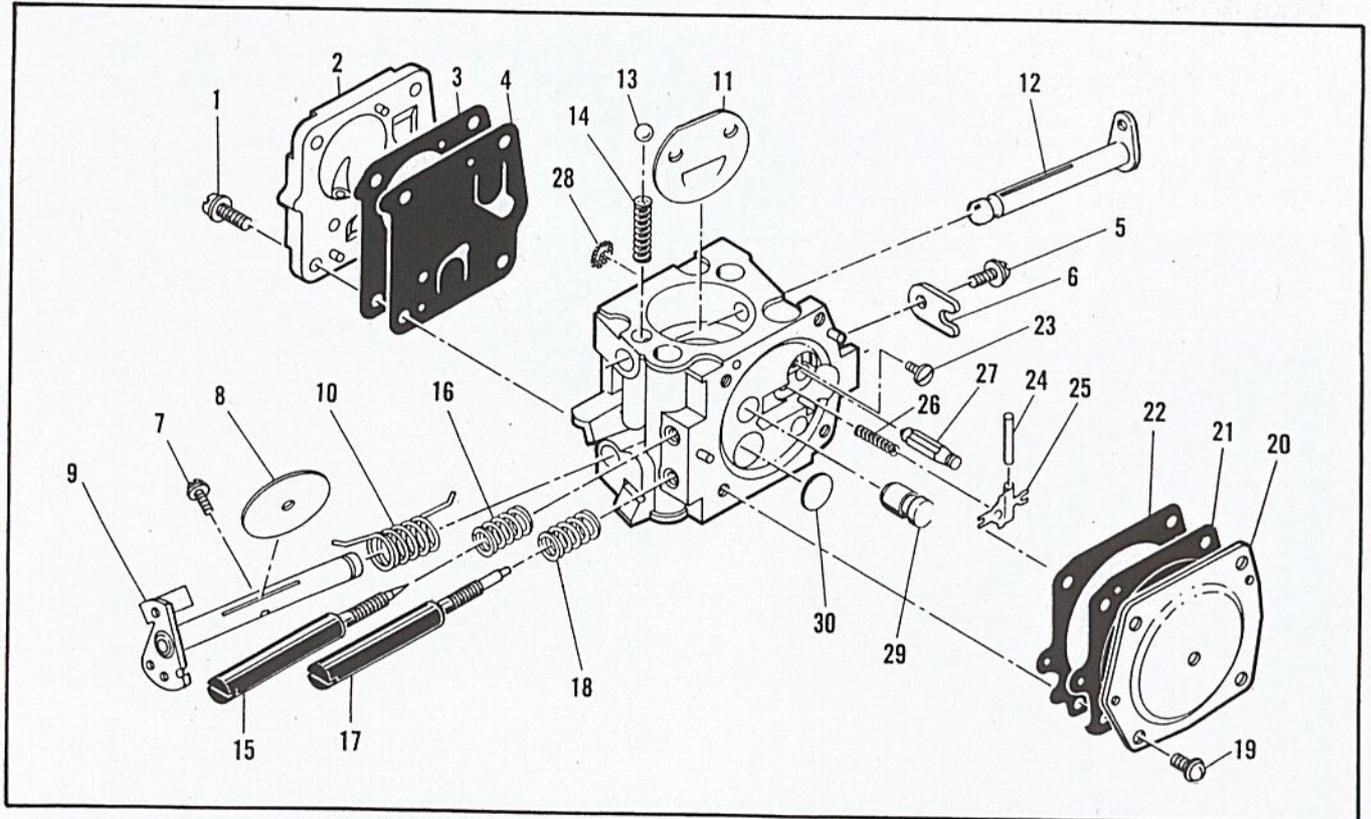


Figure 7. Carburetor.

Figure 6. Carburetor Assembly

Item No.	Part Number	Description	Units Per Assy	Item No.	Part Number	Description	Units Per Assy
	87821	Carburetor Assy	1	17	*67502	. Spring - Needle	2
1	67501	. Screw - Pump cover	4	18	70798	. Screw - Diaphragm	4
2	88731	. Kit - Pump cover	1	19	83761	. Cover - Diaphragm	1
3	**88617	. . Gasket - Cover	1	20	*67499	. Diaphragm - Metering	1
4	*67498	. Diaphragm - Check valve	1	21	**67496	. Gasket - Diaphragm	1
5	*83114	. Diaphragm - Fuel pump	1	22	*67500	. Screw - Lever pin	1
6	*47690	. Screw - Plate	3	23	*67508	. Pin - Lever	1
7	83762	. Plate - Throttle	1	24	*67509	. Lever - Inlet	1
8	67489	. Clip - Shaft	1	25	*67503	. Spring - Lever	1
9	85980	. Shaft Assy - Throttle	1	26	*67491	. Valve - Needle	1
10	85981	. Spring - Throttle return	1	27	*71690	. Plug - 3/8	1
11	67490	. Plate - Choke	1	28	*69506	. Plug - 5/16	1
12	67488	. Shaft Assy - Choke	1	29	83758	. Kit - Valve & Seat Assy	1
13	*100302	. Ball - Choke friction	1	30	*67507	. Screen - Fuel	1
14	*67504	. Spring - Choke friction	1		*67482	Gasket Kit	
15	*85979	. Needle - High Speed	1		85987	Repair Kit	
16	*85982	. Needle - Idle	1				

\* Contained in Repair Kit, P/N 85987.  
 \*\* Contained in Gasket Kit, P/N 67482.

Note: Carburetor Assy, P/N 87821 (SDC 38A, Figure 6) and Carburetor Assy, P/N 85916 (HS 111A, Figure 7) are alternates used on models with serial numbers prefixed 14-.

Before ordering parts, identify the carburetor on the saw.

Figure 7. Carburetor Assembly

Item No.	Part Number	Description	Units Per Assy.	Item No.	Part Number	Description	Units Per Assy.
	85916	Carburetor Assembly (S)	1	16	52936	. Spring - High speed needle	1
1	52933	. Screw - Pump cover	4	17	86170	. Needle - Idle	1
2	66628	. Cover - Pump	1	18	67133	. Spring - Idle needle	1
3	66629	. Gasket - Cover	1	19	51721	. Screw - Diaphragm cover	4
4	66630	. Diaphragm - Fuel pump	1	20	83724	. Cover - Diaphragm	1
5	48780	. Screw - Clip retainer	1	21	66632	. Diaphragm - Metering	1
6	66646	. Clip - Throttle shaft	1	22	66633	. Gasket - Diaphragm	1
7	48780	. Screw - Plate	1	23	83479	. Screw - Lever pin	1
8	51720	. Plate - Throttle	1	24	66636	. Pin - Lever	1
9	83546	. Shaft Assy - Throttle	1	25	66638	. Lever - Metering	1
10	67136	. Spring - Throttle return	1	26	66404	. Spring - Lever	1
11	65856	. Plate - Choke	1	27	66637	. Valve - Needle	1
12	83725	. Shaft Assy - Choke	1	28	66623	. Screen - Fuel inlet	1
13	100071	. Ball - Choke friction	1	29	83729	. Check Valve - Nozzle	1
14	52930	. Spring - Choke friction	1	30	66622	. Plug - Welch	1
15	86169	. Needle - High speed	1				



Figure 8. Flywheel & Ignition System

Item No.	Part Number	Description	Units Per Assy
1	83811	Screw - Special	1
2	69924	Lockplate	1
3	-91578	Mount - Rear	1
4	84619	Insulator	1
5	86175	Clamp Assy - Boot	1
6	86190	Spring - Ground	1
7	-88834A	Boot - Port	1
8	110776	Screw - Fil hd 8-32 x 3/8	1
9	100057	Lockwasher	1
10	102500	Screw - Pan hd 10-24 x 1/2	3
11	100002	Washer - #10	3
12	-86314A	Shroud - Lower	1
13	104396	Screw - Pan hd 10-24 x 3/4	2
13A	101194	Lockwasher - #10	2
14	88835A	Shroud - Upper	1
15	87844	Insulator - Inlet	1
16	88740	Gasket - Insulator	1
17	110703	Nut - Hex 3/8-24	1
18	86068	Flywheel	1
19	-88804	Pivot - Pawl	2
20	83241	Washer - Special	2
21	67546	Pawl - Starter	2
22	67545	Spring - Pawl	2
23	-100106	Key - Woodruff	1
24	67057	Washer - Thrust	1
25	67056	Seal - Breaker box cover	1
26	67054	Washer - Thrust	1
27	-87246A	Coil & Lamination Assy	1
28	83512	Stud - Special	1
29	85798	Wire Assy - Ground	1
30	103947	Screw - Hex hd 10-24 x 1 (SEMS)	1

Item No.	Part Number	Description	Units Per Assy
31	100002	Washer - #10	2
32	50120	Wire Assy - Spark plug	1
33	55061	. Connector	1
34	85758	. Boot	1
35	-100268	. Grommet	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
	91852	Kit - Breaker box & cover	1
43	110489	. Screw - Pan hd 6-32 x .43	1
44	91838	. Washer - Special	1
45		. Cover - Breaker box	1
46		. Box - Breaker	1
47	54184	Wiper - Cam	1
48	110346	Screw - Hex hd 6-32 x 3/4	1
49	110811	Screw - Pan hd 8-32 x 3/8	1
50	110445	Screw - Truss hd 8-32 x 3/8	1
51	105976	Washer - #8	1
52	88808	Breaker Assy	1
53	110706	Screw - Pan hd 6-32 x 7/16 s/t	1
54	83126	Strap - Conduction	1
55	67051	Seal - Breaker box	1

# SUPER PRO 81

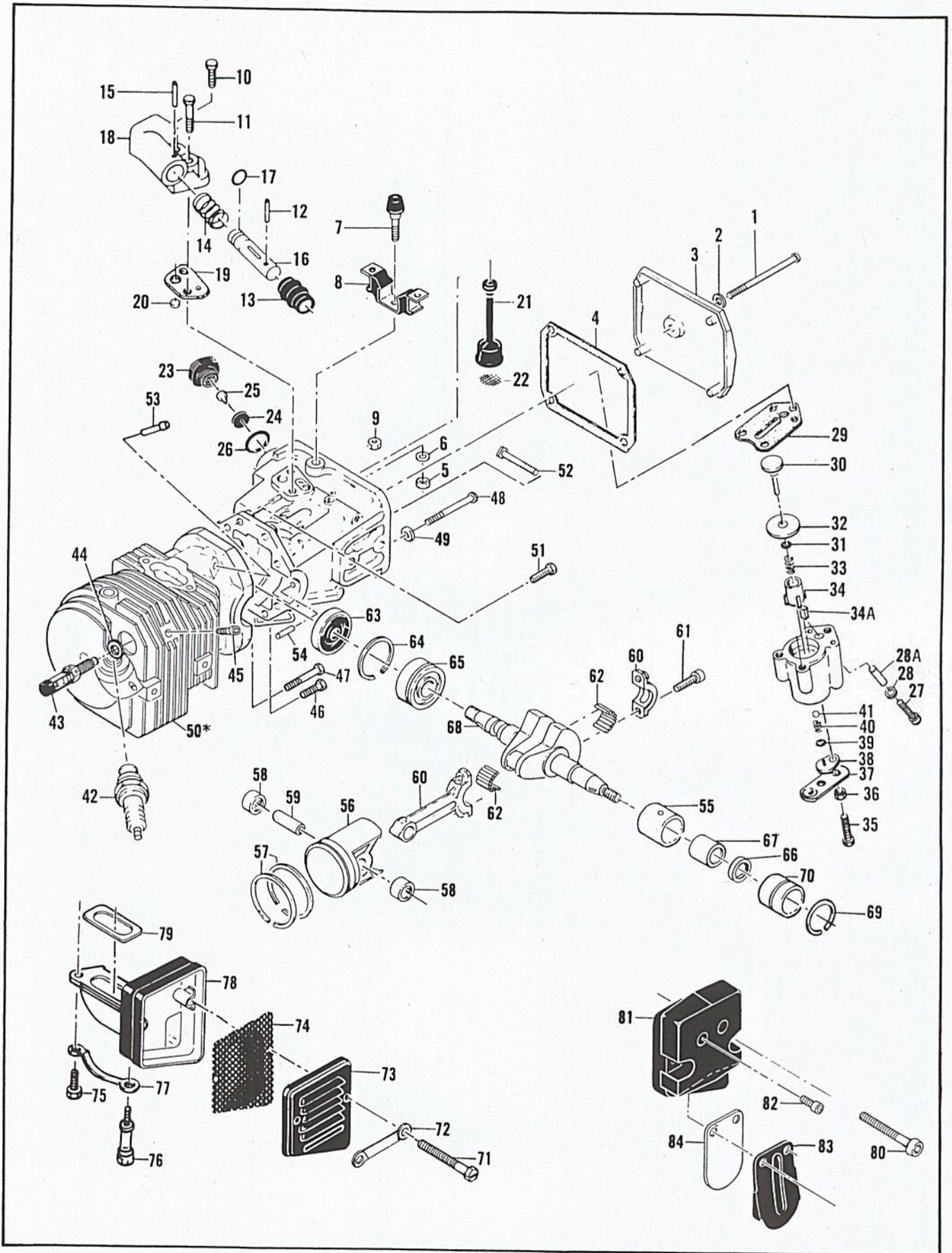


Figure 9. Powerhead & Oiler Assemblies.

Figure 9. Powerhead & Oiler Assemblies

Item No.	Part Number	Description	Units Per Assy.
1	110291	Screw - Panhd 10-24 x 2-5/8	1
2	110921	Washer - Sealing	1
3	86304	Cover - Oil tank	1
4	86306	Gasket - Cover	1
5	110143	Nut - Hex 1/4-20	1
6	102523	Washer - 1/4	1
7	69832	Bumper - Front	1
8	-91582	Mount - Front	1
9	100955	Nut - Hex 8-32	1
10	110670	Screw - Filhd -32 x 1/2	1
11	105245	Screw - Filhd 8-32 x 1(SEMS)	1
12	105673	Pin - Roll 3/32 x 9/16	1
13	69586	Boot - Plunger	1
14	69585	Spring - Plunger	1
15	101556	Pin - Roll 1/8 x 5/8	1
16	-91219	Plunger - Pump	1
17	105614	"O" Ring	1
18	-91218	Body - Oil pump	1
19	-91669	Gasket - Oil pump	1
20	-91668	Valve - Oiler	1
21	-91672	Hose Assembly - Oil	1
22	51506	. Screen - Hose	1
23	87270	Cap - Oil tank	1
24	87269	. Retainer - Valve	1
25	86402	. Valve	1
26	101148	"O" Ring	1
27	110865	Screw - Skthd 10-24 x 7/8	1
28	100003	Washer - #10	1
28A	91774	Sleeve	1
29	89642	Gasket - Pump	1
	89115	Pump Assembly - Pulse	1
30	60260A	. Piston Assy - Pump	1
31	105603	. "O" Ring	1
32	86182	. Ring - Piston	1
33	60259	. Spring - Piston	1
34	62227	. Sleeve - Adjustment	1
34A	91259	. Pad - Oil pump	1
35	110386	. Screw - Hexhd 8-32 x 1	1
36	100251	. Nut - Hex 8-32	1
37	89114	. Clamp - Pump	1
38	62407	. Cover - Outlet valve	1
39	106104	. "O" Ring	1
40	62885A	. Spring - Outlet valve	1
41	102809	. Ball - Outlet valve	1
42	63432	Spark Plug - AC CS 42T	1
43	87866	Valve - DSP	1
44	85505	Washer - Valve	1

Item No.	Part Number	Description	Units Per Assy.
45	110681	Screw - Skthd 10-24 x 1/4	1
46	110288	Screw - Hexhd 8-32 x 3/4	1
47	110644	Screw - Hexhd 8-32 x 1-1/2	1
48	62105	Screw Assy - Sealing	4
49	62842	. Washer - Sealing	4
50*	92450	Kit - Cyl., C'case, Piston	1
51	110288	. Screw - Hexhd 8-32 x 3/4	2
52	62065	. Bolt - Bar mounting	2
53	69600	. Nipple - Pulse line	1
54	110851	. Pin - Dowel	1
55	87152	. Insert - Bearing	1
56	92518	. Piston Assy (Identified A)	1
	92519	. Piston Assy (Identified B)	1
	92520	. Piston Assy (Identified C)	1
57	87854	. . Ring Set - Piston	1
58	110590	. . Bearing - Needle	2
59	69020	Pin - Piston	1
60	85237	Connecting Rod Assy	1
61	61627A	. Screw - Special	2
62	85246	. Roller - (set of 22)	1
63	61618	Seal - Oil	1
64	63464	Ring - Snap	1
65	63429B	Bearing - Ball	1
66	110260	Seal - Oil	1
67	104357	Bearing - Needle	1
68	86193	Crankshaft	1
69	① 63699	Ring - Bearing insert	1
70	① 63701	Insert - Bearing	1
71	② 103353	Screw - Hexhd 10-24 x 1-1/2 (B, D)	2
72	② 86050	Lockplate (B, D)	1
73	② 84603	Cover - Muffler (A, B, D)	1
74	84580	Baffle - Muffler	1
75	110529	Screw - Hex hd 10-24 x 1/2	1
76	84578	Screw - Special	1
77	84579	Lockplate	1
78	84572	Body & Duct Assembly	1
79	84577	Gasket - Muffler	1
80	③ 110861	Screw - Skthd 10-24 x 1-1/2	2
81	③ 84581	Kit - Cover & valve assy	1
82	③ 110472	. Screw - Skthd 8-32 x 5/16	2
83	③ 87193	. Stop - Reed	1
84	③ 85585	. Valve - Reed	1

- ① Used on models with serial numbers prefixed 11- only.
- ② Used on models with serial numbers prefixed 11- and 12-.
- ③ Used on models with serial numbers prefixed 14-.

\* Cylinder/Crankcase and Piston Assembly Kits are furnished in matched sets and are identified by a matching letter marking "A", "B" or "C" on both cylinder and piston.

Order replacement pistons identified with the letter identification on the cylinder.

For piston replacement in an unmarked cylinder, use Piston Assembly, P/N 92519, identified "B".

## Accessories

Part Number	Description
86218	Kit - Preheater
86206	Kit - Duct, Valve, Guard
84597	Baffle - Spark arrester
86330	Kit - Spike
86943	Kit - Sprocket & Drum 8 T .375
86419	Guide - Timing

Part Number	Description
85968	Guard - Hand
87839	Adapter - Bar Mounting
89494	Wrench - Clutch retaining
63746	Scrench
63097	Spark Plug - AC CS 45T
65778	Spark Plug - AC CS 41T

## Service Specifications

Spark Plug: AC CS 42T (standard); gap: 0.025 in. (0.63 mm)  
AC CS 41T (cooler); gap: 0.025 in. (0.63 mm).

Lamination Gap: 0.010 to 0.012 in. (0.25 to 0.30 mm) recommended.  
maximum gap: 0.015 in. (0.38 mm).

Timing: 26° BTDC.

Clutch Engagement Speed: 2600 to 3000 rpm.

Torque Values:

Connecting Rod Screws: 65 to 70 lb-in (75 to 81 kg-cm).

Clutch Nut: 200 to 210 lb-in (230 to 243 kg-cm).

Flywheel Nut: 265 to 325 lb-in (305 to 374 kg-cm).