

ILLUSTRATED PARTS LIST

REC U 2 2 AOUT 1994

MODELS	SERIAL NUMBER PREFIX	MODELS	SERIAL NUMBER PREFIX
600439A	13-, 14-	600439F	14-
600439B	13-, 14-	600439J	13-, 14-
600439D	12-, 13-, 14-		
600439E	13-, 14-		

Pro Mac 850 chain saws are identified by a model number (600439) followed by a suffix letter (A, B, D, E, F, 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(s) identified by the letter or letters.

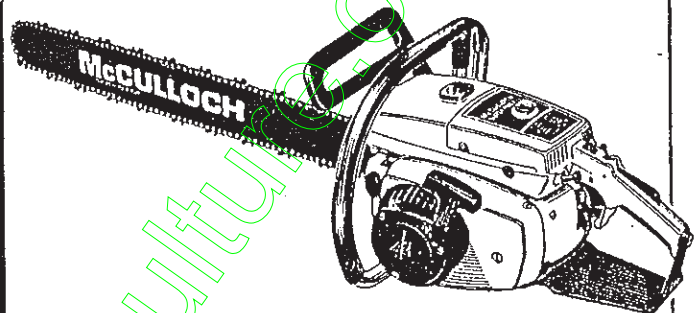
Part numbers and descriptions without suffix letter or letters apply to all models of the Pro Mac 850 chain saw.

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).

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

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.

Pro Mac 850 Chain Saw



September 1979

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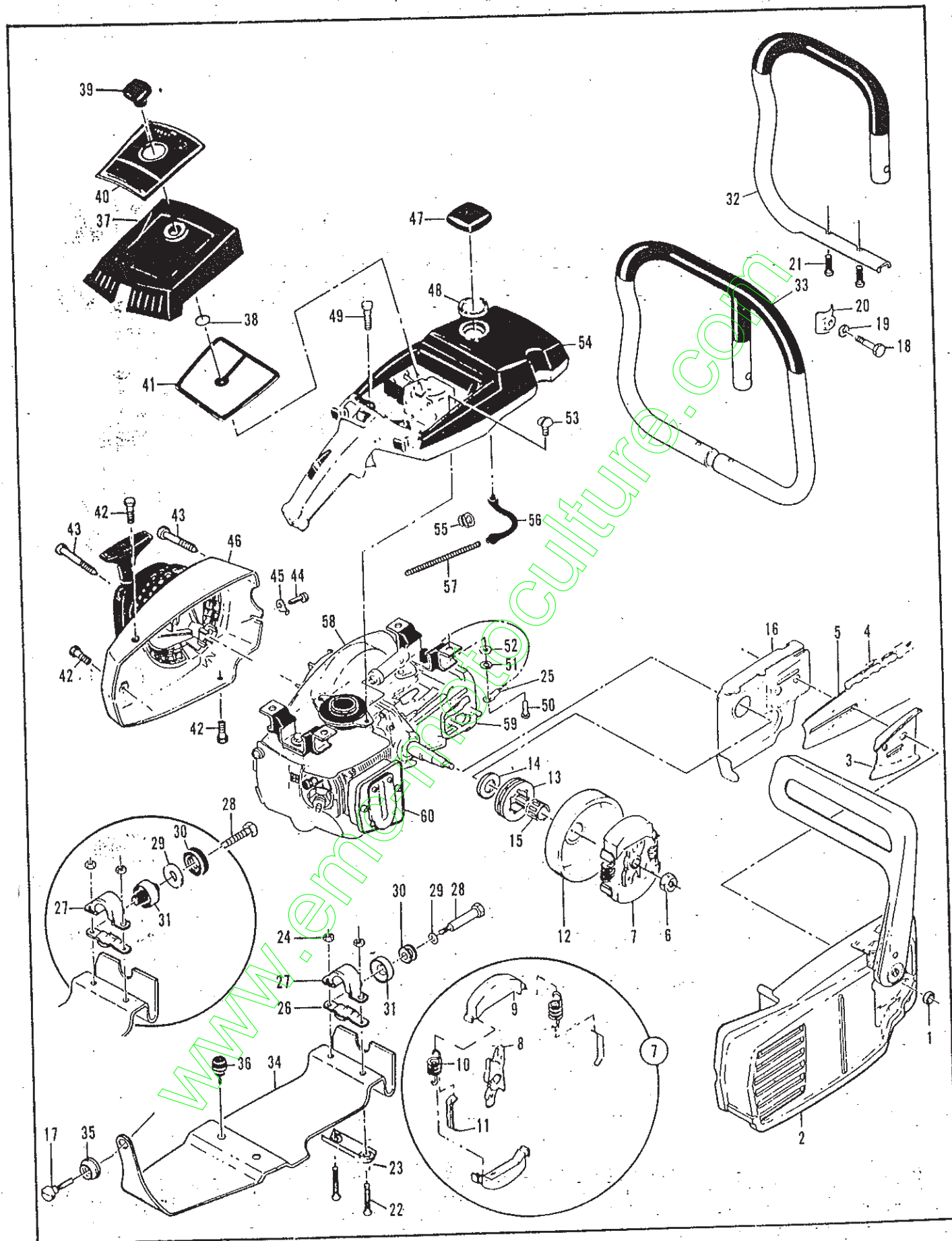


Figure 1. General

Figure 1. General

Item No.	Part Number	Description	Units Per Asy.	Item No.	Part Number	Description	Units Per Asy.
1	110961	Nut-Hx 5/16-24	2	30	84661	② Grommet	1
2		CHAIN BRAKE (Figure 2)		31	85898	② Mount	1
3	64325	Plate-Bar protector	1	32	92698	Frame & Grip Asy	1
4		Chain Asy	1	33	92707	Frame & Grip Asy	1
5		Bar Asy	1	34	92696	Brace-Frame	1
6	86113	Nut-Hx 3/8-24 (L.H.)	1	35	93032	Grommet-Frame Brace	1
7	87675	Clutch Asy	1	36	89403	Bumper-Lower	2
8	89438	. Rotor-Clutch	1	37	85850A	Cover Asy-Air cleaner	1
9	67233	. Kit - Clutch shoe	1	38	110565	. Ring-Retaining	1
10	83223	. Spring-Clutch	2	39	68529	. Knob-Cover	1
11	64583	. Retainer-Clutch spring	2	40	93170	Nameplate	1
12	95166	Kit-Drum & Sprocket		41	85387	Filter-Air	1
		7 T .375P	1	42	110741	Screw-Pan hd 10-24 x 1/2	3
13	86145	. Sprocket	1	43	87871	Screw-Special	3
14	86958	. Washer-Sprocket	1	44	102762	Screw-Hx hd 10-24 x 1/2	1
15	110971	Bearing-Sprocket	1	45	69890	Lockplate	1
16	84978A	Shield-Sawdust	1	46		Fan Housing & Starter Asy (Figure 3)	
17	93037	Screw-Frame Brace	1	47	89322	Cap Asy-Fuel	1
18	102130	Screw-Hx 1/4-20 x 1-1/2	1	48	69767	. Gasket	1
19	100153	Lockwasher-1/4	1	49	110746	Screw-Hx hd 10-24 x 1/2	2
20	63484	Clamp-Frame	1	50	102861	Screw-Hx hd 1/4-20 x 5/8	2
21*	104395	Screw-Pan 10-24 x 5/8	2	51	100153	Lockwasher-1/4	2
22**	103353	Screw-Hx hd 10-24 x 1-1/2	2	52	100005	Washer-1/4	2
23**	93736	Clamp-Frame	1	53	110807	Screw-Pan hd 8-32 x 5/16	2
24	101191	Nut-Hx Lock 10-24 x 5/8	2	54		Fuel Tank Asy (Figure 4)	
25	83828A	Wire Asy-Ground	1	55	87826	Clamp-Hose	2
26	92701	Clamp-Bottom	1	56	69598	Line-Pulse	1
27	92700	① Clamp-Top	1	57	67944	Spring-Hose	1
27	93932	② Clamp-Top	1	58		Flywheel & Ignition System (Figure 8)	
28	93096	① Screw-Shoulder	1	59		Powerhead & Oiler Asys (Figure 9)	
29	94114	① Washer - 1/4	1	60		Muffler Asy (Figure 9)	
30	92703	① Hub-Mount	1				
31	92704	① Mount	1				
28	110679	② Screw-Hx hd 1/4-20 x 2	1				
29	110845	② Washer-Plain	1				

* Used with Frame and Grip Asy, P/N 92698

** Used with Frame and Grip Asy, P/N 92707

① Used on models with serial number prefix 12- and 13-; also used on models with serial number prefix 14- with suffix letter J.

② Used on models with serial number prefix 14- with suffix letter A, B, D, & F.

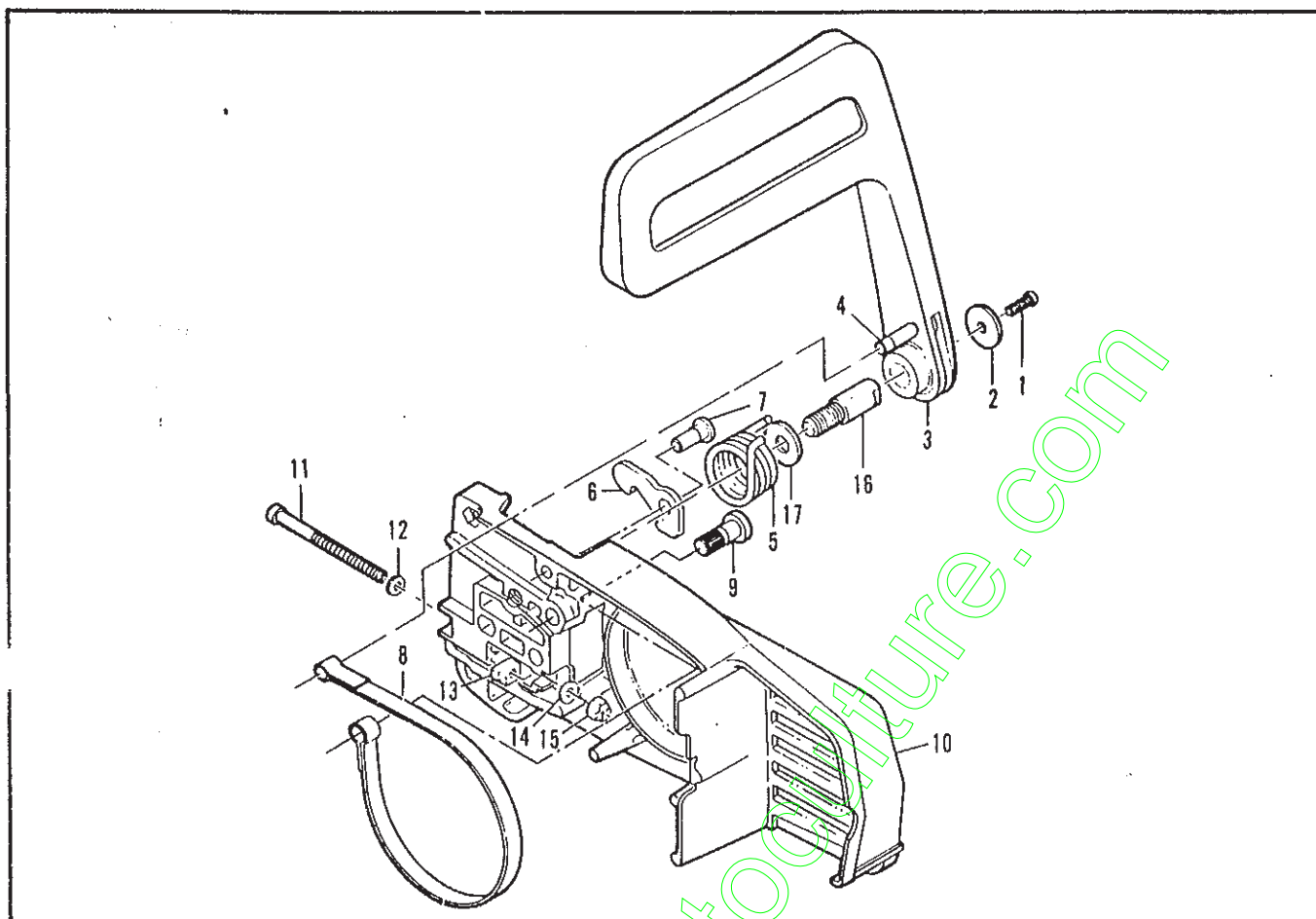


Figure 2. CHAIN BRAKE Asy

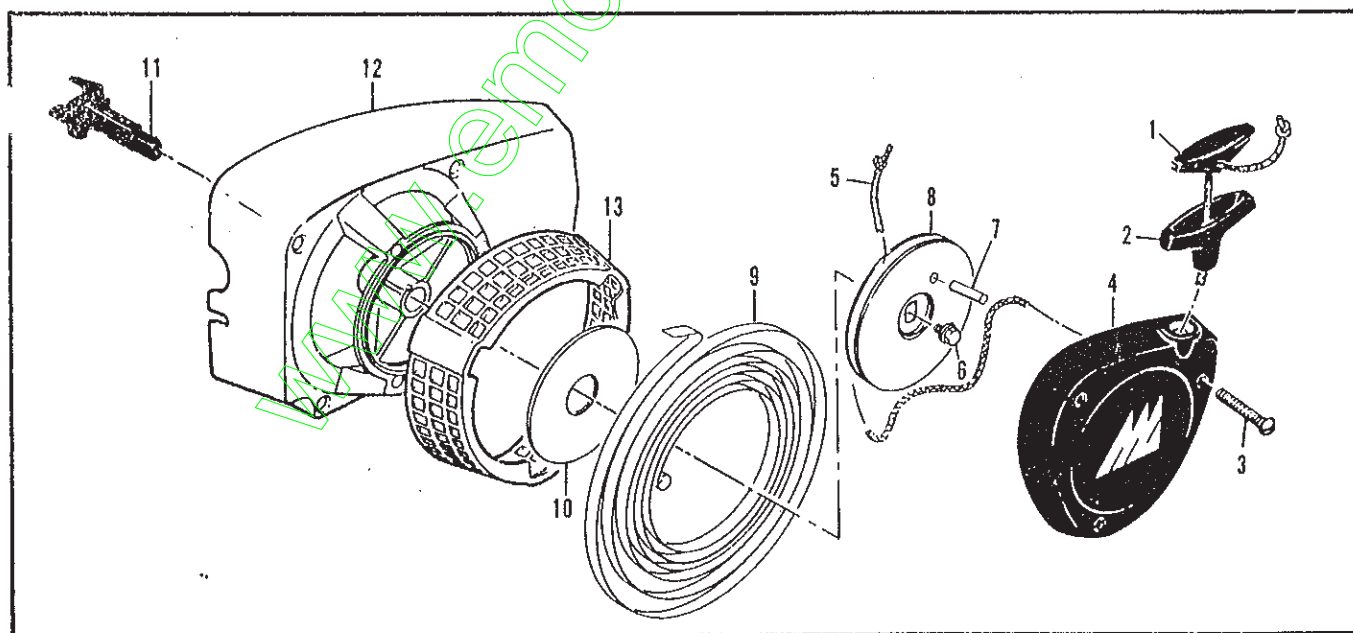


Figure 3. Fan Housing & Starter Asys

Figure 2. CHAIN BRAKE Assembly

Item No.	Part Number	Description	Units Per Asy.
	92988	CHAIN BRAKE Asy	
1	102500	. Screw-Pan hd 10-24 x 1/2	1
2	91273	. Washer-Special	1
3	93076	. Lever Asy	1
4	93077	. Pin Asy-Roller	1
5	93085	. Spring-Brake	1
6	93083	. Latch	1
7	93669	. Pivot-Latch	1
8	93081	. Band-Brake	1

Item No.	Part Number	Description	Units Per Asy.
9	93082	. Pin-Band Anchor	1
10	92987	. Housing Asy-Brake	1
11	110527	. Screw-Fil hd 10-24 x 2-3/4	1
12	110264	. Washer-#10	1
13	61705	. Nut-Bar adjusting	1
14	100002	. Washer-#10	1
15	102067	. Nut-Hx 10-24	1
16	91246	. Pin-Lever pivot	1
17	91245	. Washer-Thrust	1

Accessories

Item No.	Part Number	Description	Units Per Asy.
	84453	Kit-Piston tool	
	69191	Kit-Pressure test adaptor	
	63097	Spark Plug (standard)	
	63432	Spark Plug (cooler)	
	62827	Wrench/Screwdriver	
	-83235	Scrench	

Item No.	Part Number	Description	Units Per Asy.
	93014	Baffle-Spark Arrester	
	91967	Kit-Spike	
	102388	. Screw-Hx hd 10-24 x 5/8	
	24236	. Washer-Special	
	101191	. Nut-Hx 10-24	
	93886	① Kit - Mount	

① Used on models with long bars (28" and longer).

Figure 3. Fan Housing & Starter Assy.

Item No.	Part Number	Description	Units Per Asy.
	90921A	Fan Housing & Starter Asy	1
1	62191A	. Insert-Starter	1
2	93137	. Handle-Starter	1
3	110646	. Screw-Oval hd 8-32 x 1-1/8	3
4	87672	. Cover Asy-Starter	1
5	87670	. Rope-Starter	1

Item No.	Part Number	Description	Units Per Asy.
6	110341	. Screw-Hex hd 10-24 x 1/2	1
7	105841	. Pin-Roll	1
8	87689	. 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

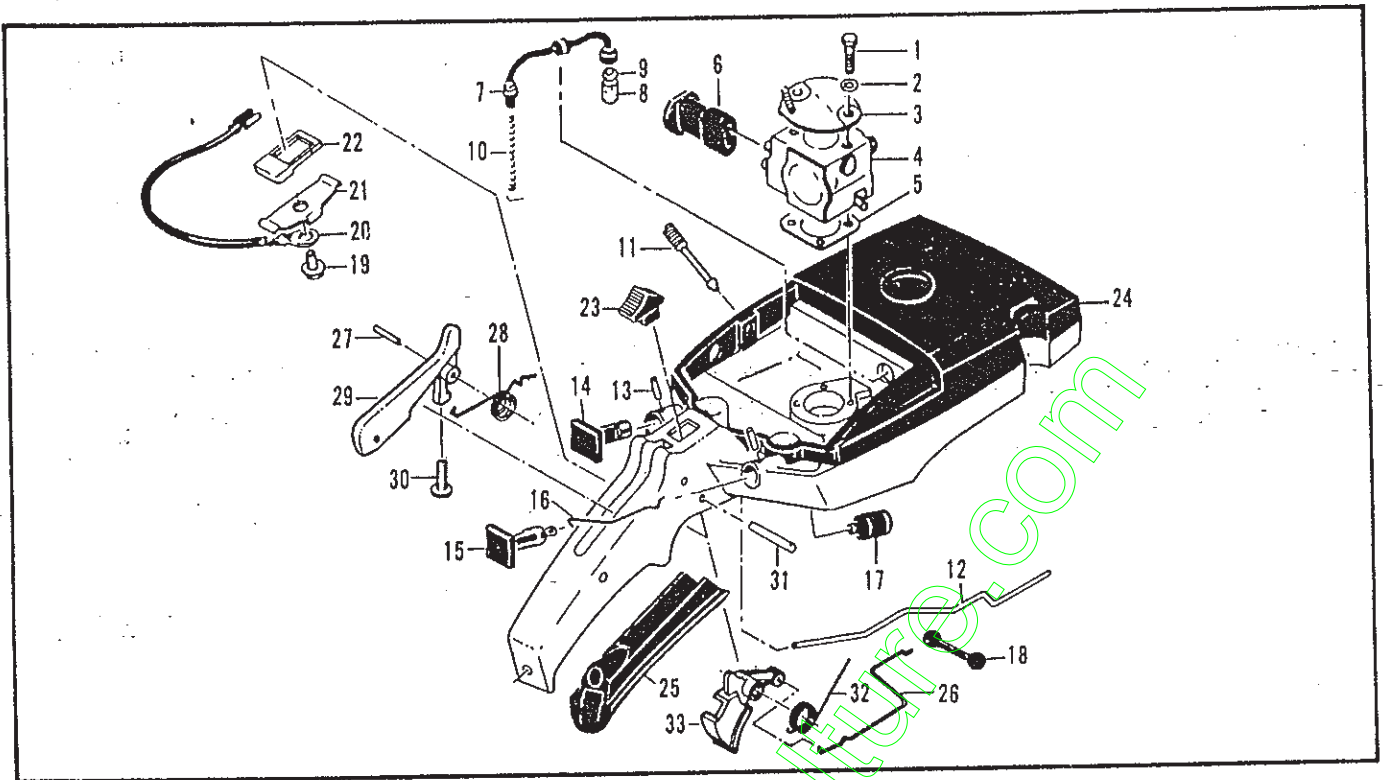


Figure 4. Fuel Tank Assembly

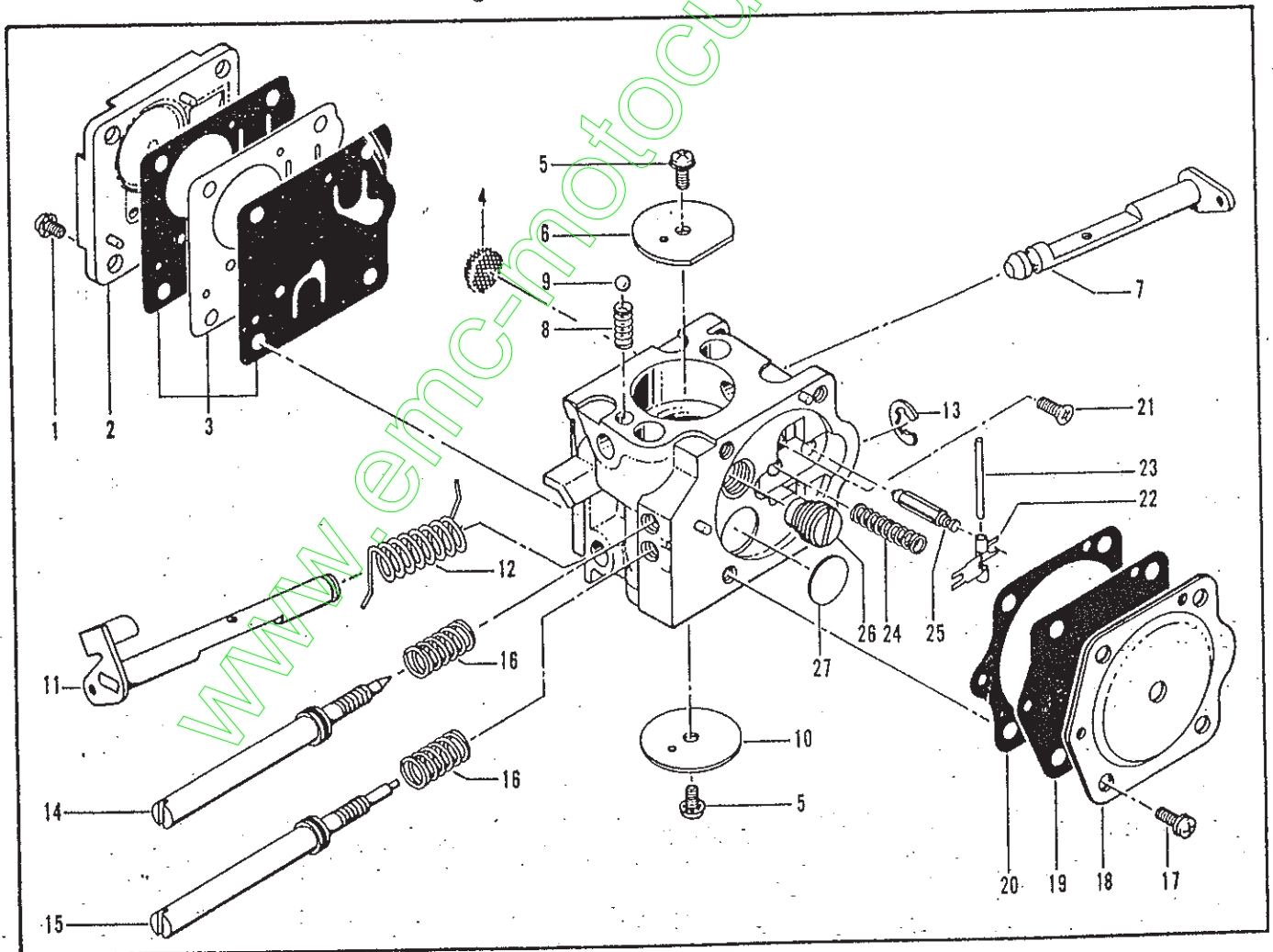


Figure 5. Carburetor Assembly

Figure 4. Fuel Tank Assembly

Item No.	Part Number	Description	Units Per Asy.
1	110894	Screw-Hx hd 10-24 x 2-1/8	2
2	110964	Washer	2
3	69952	Bracket-Air Cleaner	1
4		Carburetor Asy (Fig. 5,6,7)	
5	86189	Gasket-Carburetor	1
6	69629	① Boot-Carburetor controls	1
(6)	85901	② Boot-Carburetor controls	1
7	64848	Hose Assembly-Fuel	1
8	63932	. Filter-Fuel	1
9	100440	. Washer	1
10	67944	Spring-Hose	1
11	86273	Screw-Idle speed	1
12	92903	Rod-Oiler	1
13	105673	Pin-Roll 3/32 x 9/16	2
14	63044	Button-Oiler	1
15	69630	Button - Choke	1

Item No.	Part Number	Description	Units Per Asy.
16	69631	Rod - Choke	1
17	69597	Boot - Control rod	2
18	69043	Snubber - Rod	1
19	110706	Screw - Fil hd 8-18 x 1/2	1
20	-83661	③ Wire Asy - Stop switch	1
(20)	92888	④ Wire Asy - Stop switch	1
21	62451	Contact - Switch	1
22	62950A	Base - Switch	1
23	68846	Button - Switch	1
24	-94025	Tank/Control Asy	1
25	89320	. Insert - Handle grip	1
26	92155	. Rod - Throttle	1
27	105654	. Pin - Roll 1/8 x 7/8	1
28	92154	. Spring - Trigger release	1
29	-94275	. Release Asy - Trigger	1
30	-111012	. . Screw - Pan hd 4-40 x 5/16	1
31	110378	. Pin - Roll 3/16 x 15/16	1
32	92152	. Spring - Trigger	1
33	92151A	. Trigger - Throttle	1

① Used on models with Carburetor Asy, P/N 87821 (Figure 6).

② Used on models with Carburetor Asys, P/N 93789 and P/N 85916 (Figures 5 and 7).

③ Used on models with serial number prefix 14-.

④ Used on models with serial number prefix 12- and 13-.

NOTE: Before ordering parts, identify the carburetor on the saw.

Figure 5. Carburetor Assembly

Item No.	Part Number	Description	Units Per Asy.
	-93789	① Carburetor Asy (Zama C-2)	1
1	91809	. Screw-Pump cover (m4)*	4
2	-93939	. Cover-Fuel pump	1
3	-93952	② . Kit-Pump diaphragm	1
4	91820	② . Screen-Filter	1
5	91804	. Screw-Plate	2
6	-93953	. Valve-Choke	1
7	-93954	. Shaft Asy-Choke	1
8	-93955	. Spring-Choke shaft	1
9	-93956	. Ball-Choke friction	1
10	-93937	. Valve-Throttle	1
11	-93935	. Shaft Asy-Throttle	1
12	-93936	. Spring-Throttle return	1
13	-93938	. E-Ring	1
14	-93946	② . Needle-High speed	1

Item No.	Part Number	Description	Units Per Asy.
15	-93947	② . Needle-Idle	1
16	-93948	② . Spring-Needle	2
17	-93945	. Screw-Diaphragm cover	4
18	-93944	. Cover-Diaphragm	1
19	-93943	② . Diaphragm Asy-Main	1
20	-93949	② . Gasket-Main	1
21	91814	② . Screw-Lever pin (m3)*	1
22	-93941	② . Lever-Inlet	1
23	-93942	② . Pin-Lever	1
24	-93940	② . Spring-Lever	1
25	91810	② . Valve-Needle	1
26	-93950	② . Valve Asy-Main jet	1
27	-93951	. Plug-Welsh	1
	-93957	Repair Kit	

① NOTE: This is one of three carburetors used alternately on models with serial number prefix 12-, 13-, and 14-.

② Contained in Repair Kit, P/N 93957

*The "m" denotes metric screw size.

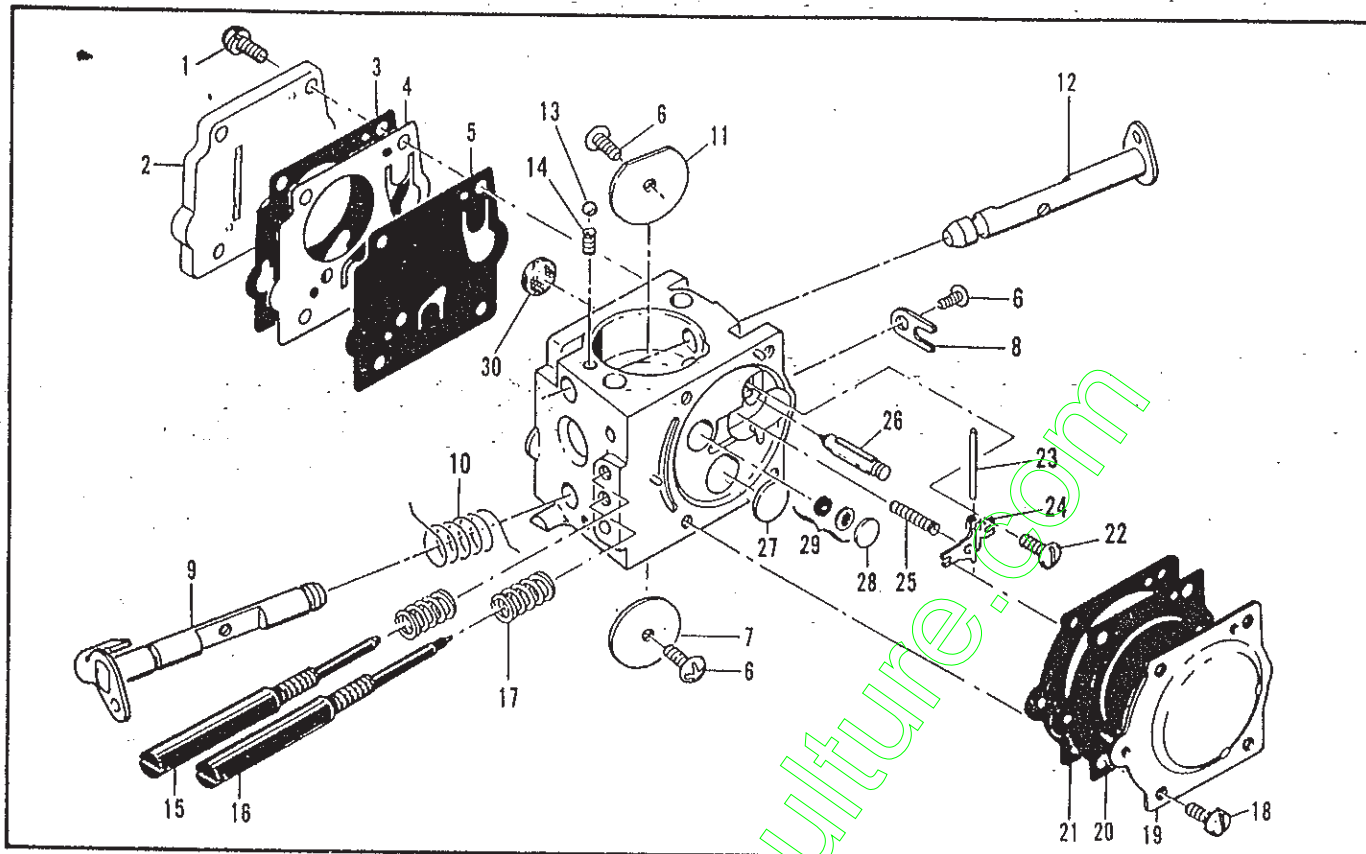


Figure 6. Carburetor Assembly

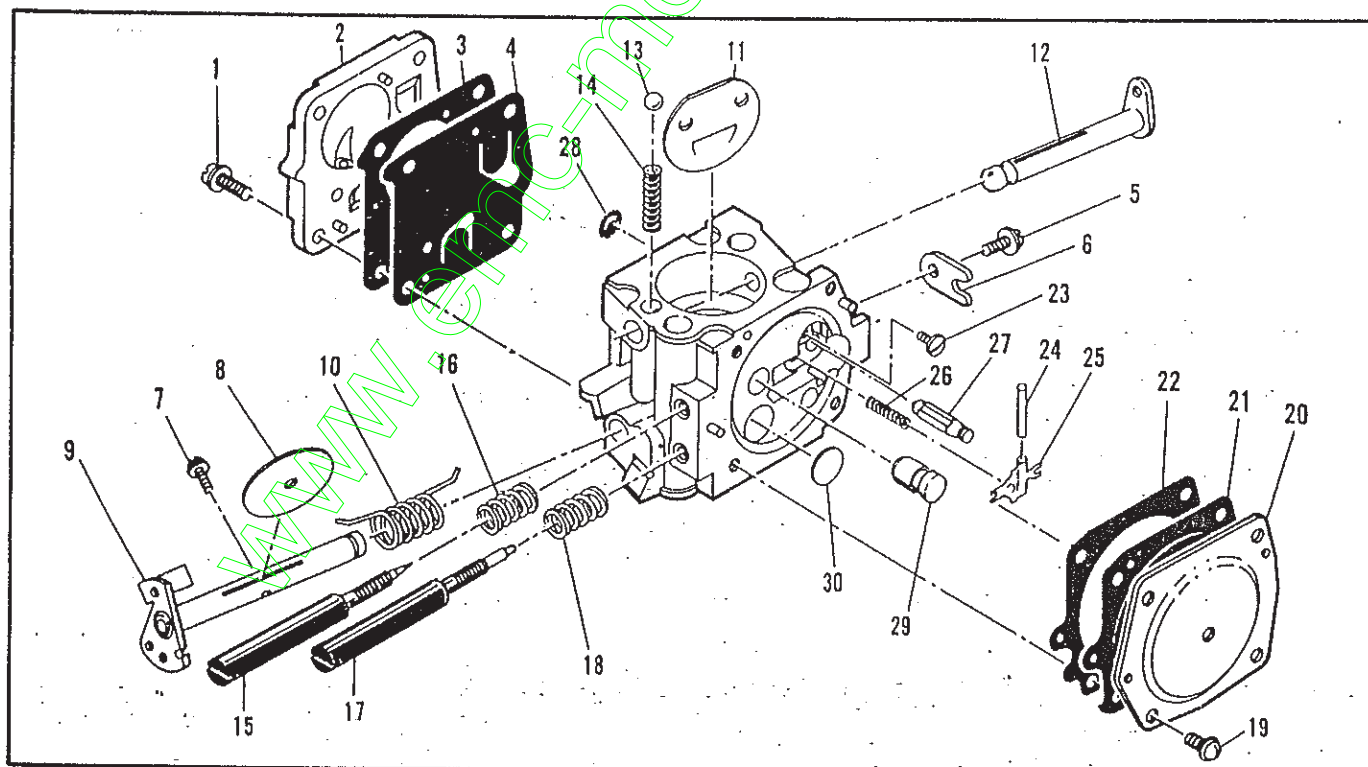


Figure 7. Carburetor Assembly

Figure 6. Carburetor Assembly

Item No.	Part Number	Description	Units Per Asy
	87821	① Carburetor Asy - SDC 38A	1
1	67501	. Screw - Pump cover	4
2	88731	. Kit - Pump cover	1
3	88617	② . Gasket - Cover	1
4	67498	③ . Diaphragm - Check valve	1
5	83114	③ . Diaphragm - Fuel pump	1
6	47690	③ . Screw - Plate	3
7	83762	. Plate - Throttle	1
8	67489	. Clip - Shafi	1
9	85980	. Shaft Asy - Throttle	1
10	85981	. Spring - Throttle return	1
11	67490	. Plate - Choke	1
12	67488	. Shaft Asy - Choke	1
13	100302	③ . Ball - Choke friction	1
14	67504	③ . Spring - Choke friction	1
15	85979	③ . Needle - High Speed	1
16	85982	③ . Needle - Idle	1

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

① NOTE: This is one of three carburetors used alternately on models with serial number prefix 12-, 13- and 14-.

② Contained in Gasket Kit, P/N 67482.

③ Contained in Repair Kit, P/N 85987.

NOTE: Before ordering parts, identify the carburetor on the saw.

Figure 7. Carburetor Assembly

Item No.	Part Number	Description	Units Per Asy
	85916	① Carburetor Asy - HS 111A	1
1	52933	. Screw - Pump cover	4
2	66628	. Cover - Pump	1
3	66629	. Gasket - Cover	1
4	66630	. Diaphragm - Fuel pump	1
5	48780	. Screw - Clip retainer	1
6	66646	. Clip - Throttle shaft	1
7	48780	. Screw - Plate	1
8	51720	. Plate - Throttle	1
9	83546	. Shaft Asy - Throttle	1
10	67136	. Spring - Throttle return	1
11	65856	. Plate - Choke	1
12	83725	. Shaft Asy - Choke	1
13	100071	. Ball - Choke friction	1
14	52930	. Spring - Choke friction	1
15	86169	. Needle - High speed	1

Item No.	Part Number	Description	Units Per Asy
16	52936	. Spring - High Speed needle	1
17	86170	. Needle - Idle	1
18	67133	. Spring - Idle needle	1
19	51721	. Screw - Diaphragm cover	4
20	83724	. Cover - Diaphragm	1
21	66632	. Diaphragm - Metering	1
22	66633	. Gasket - Diaphragm	1
23	83479	. Screw - Lever pin	1
24	66636	. Pin - Lever	1
25	66638	. Lever - Metering	1
26	66404	. Spring - Lever	1
27	66637	. Valve - Needle	1
28	66623	. Screen - Fuel inlet	1
29	83729	. Check Valve - Nozzle	1
30	66622	. Plug - Welch	1

① NOTE: This is one of three carburetors used alternately on models with serial number prefix 12-, 13- and 14-.

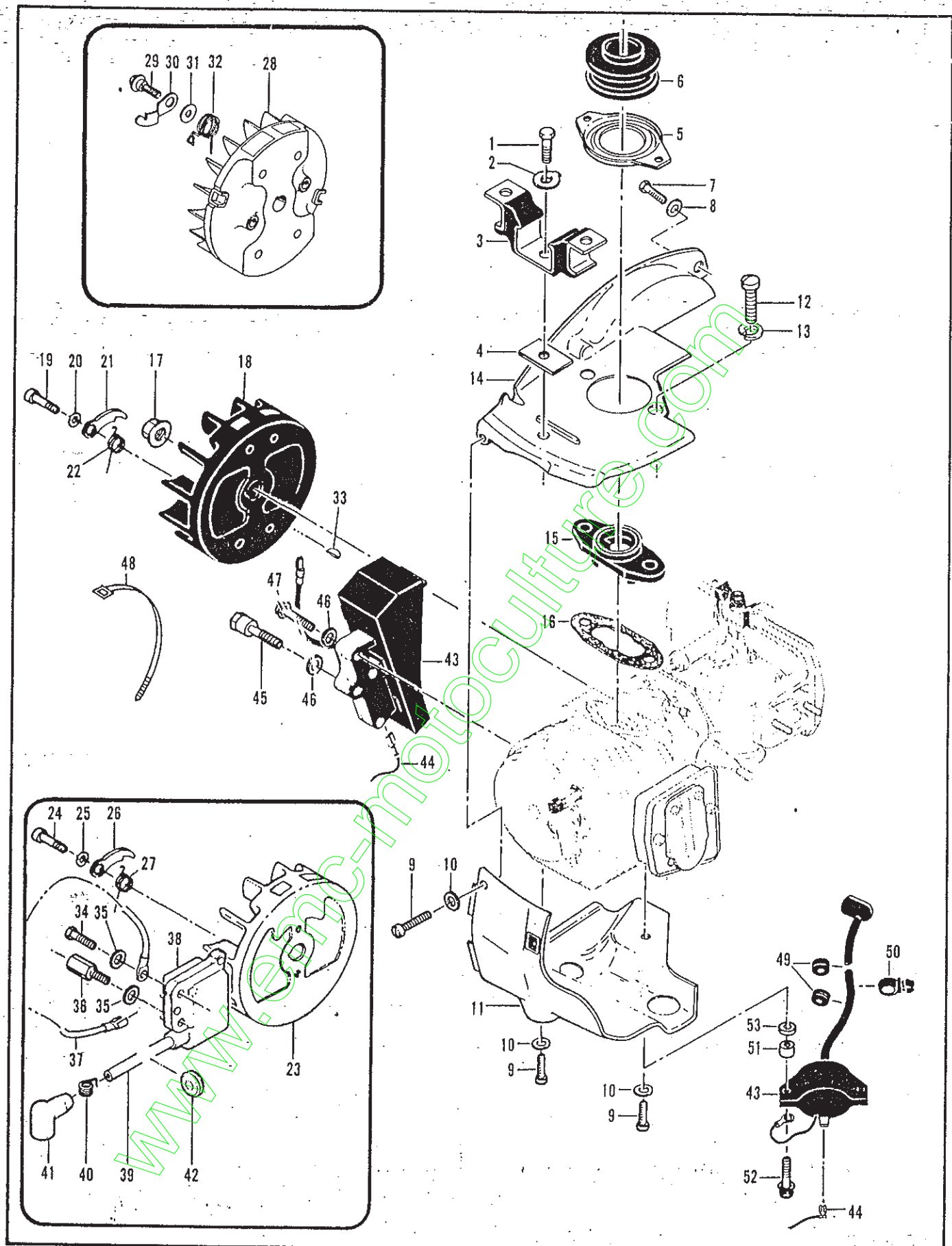


Figure 8. Flywheel & Ignition System

Figure 8. Flywheel & Ignition System

Item No.	Part Number	Description	Units Per Asy.	Item No.	Part Number	Description	Units Per Asy.
1	83811	Screw-Special	1	27	67545 ③	Spring-Pawl	2
2	69924	Lockplate	1	28	86068A ④	Flywheel Asy	1
3	91578A ①	Mount-Rear	1	29	93464 ④	Screw-Pawl	2
3	93925 ②	Mount-Rear	1	30	93198 ④	Pawl - Starter	2
4	84619	Insulator	1	31	93469 ④	Washer - Pawl	2
5	86175	Clamp Asy-Boot	1	32	93197 ④	Spring-Pawl	2
6	88834A	Boot-Port	1	33	100106	Key-Woodruff	1
7	110776	Screw-Fil hd 8-32 x 3/8	1	34**	110127	Screw-Hx hd 10-24 x 7/8 (SEMS)	1
8	100057	Lockwasher-#8	1	35**	100002	Washer-#10	2
9	102500	Screw-Pan hd 10-24 x 1/2	AR†	36**	83512	Stud-Special	1
10	100002	Washer-#10	AR†	37**	85798	Wire Asy - Ground	1
11*	92815	Shroud-Lower	1	38**	92785	Electronic Ignition Asy	1
11**	86314A	Shroud-Lower	1	39**	92796	Wire Asy-Spark Plug	1
12	104396	Screw-Pan hd 10-24 x 3/4	2	40**	102556	Connector	1
13	101194	Lockwasher-#10	2	41**	95266	Boot	1
14	88835A	Shroud-Upper	1	42**	110995	Grommet	1
15	87844	Insulator-Inlet	1	43*	95237	Kit - Electronic ignition	1
16	88740	Gasket-Insulator	1	44*	92848	Wire Asy-Primary	1
17	110703	Nut-Hex 3/8-24	1		92889	Stud-Fan Housing	1
18*	92886	Flywheel Asy (black)	1	45*		Mounting	1
19*	88804	Screw-Special	2	46*	100002	Washer-#10	2
20*	83241	Washer-Special	2	47*	103947	Screw-Hx 10-24 x 1.0	1
21*	67546	Pawl-Starter	2	48*	93273	Tie Cable	1
22*	67545	Spring-Pawl	2	49*	100268	Grommet	2
23	86068 ③	Flywheel Asy	1	50*	110973	Clip-Guide .375	1
24	88804 ③	Screw-Special	2	51*	92890	Spacer-Transformer	2
25	83241 ③	Washer-Special	2	52*	110749	Screw-Hx W 10-24 x 1-1/8	2
26	67546 ③	Pawl-Starter	2	53*	100002	Washer-#10	2

*Used on models with serial number prefix 12- and 13-.

**Used on models with serial number prefix 14-.

① Used on models with serial number prefix 12- and 13-; also used on models with serial number prefix 14- with suffix letter J.

② Used on models with serial number prefix 14- with suffix letter A, B, D, E & F.

③ Used on models with serial number prefix 14- with 12-fin flywheel.

④ Used on models with serial number prefix 14- with 24-fin flywheel.

† Two used on models with serial number prefix 12- and 13-; three used on models with serial number prefix 14-.

Service Specifications

Spark Plug Gap	.025 inch (.63 mm)
Valve Lamination Gap	.011 to .015 inch (.30 to .40 mm)
Timing	26° BTDC
Clutch Engagement Speed	2800 to 3000 rpm
Torques	Connecting Rod Screws: 65 to 70 pound x inches (7.3 to 7.9 N.m.)
	Clutch Nut: 160 to 170 pound x inches (18.1 to 19.2 N.m.)
	Flywheel Nut: 265 to 325 pound x inches (29.9 to 36.7 N.m.)

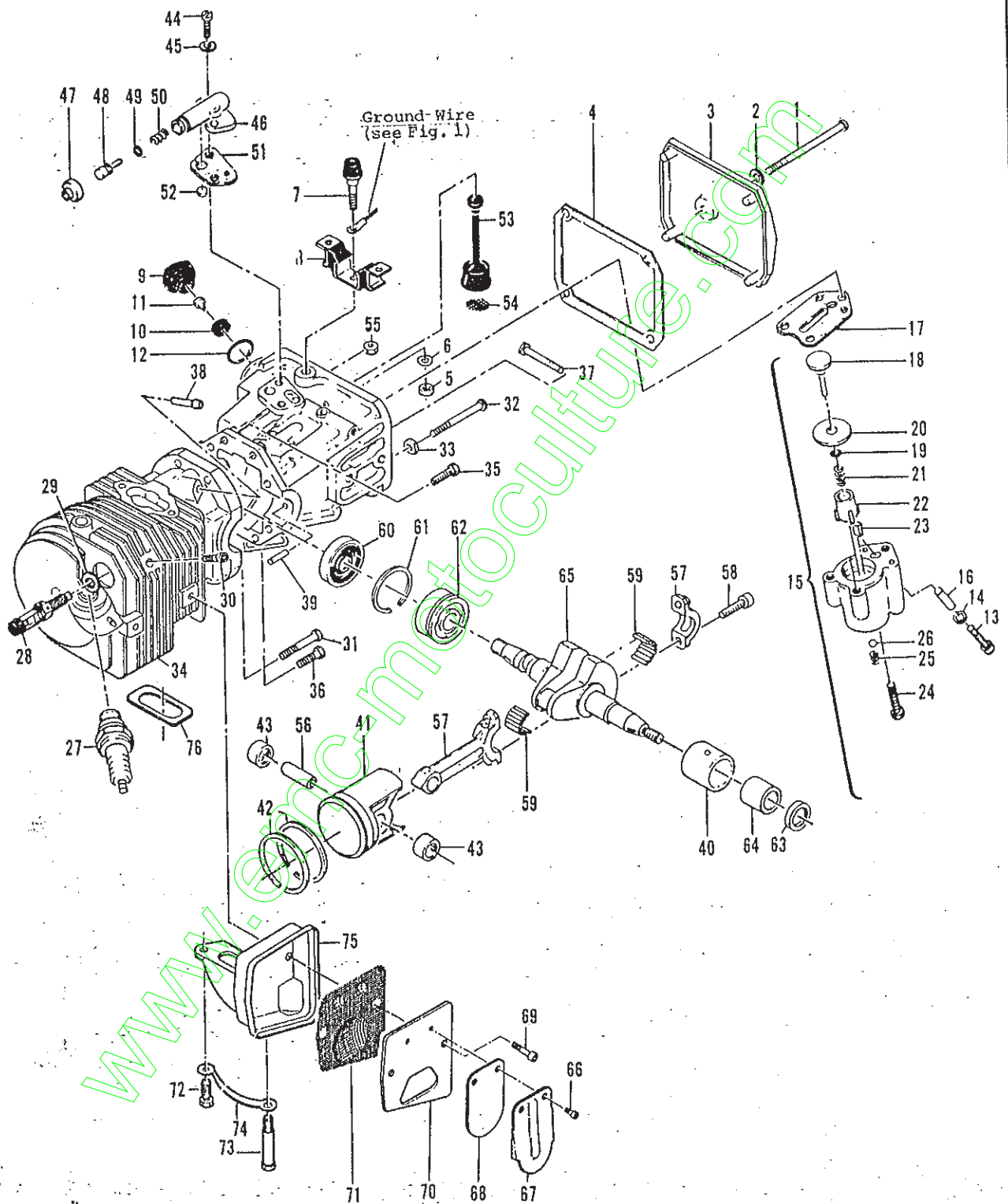


Figure 9. Powerhead & Oiler Assemblies.

Figure 9. Powerhead & Oiler Assemblies

Item No.	Part Number	Description	Units Per Asy.	Item No.	Part Number	Description	Units Per Asy.
1	110291	Screw-Pan hd 10-24 x 2-5/8	1	37	62065	. Bolt-Bar mounting	2
2	110921	Washer-Sealing	1	38	69600	. Nipple-Pulse line	1
3	86304	Cover-Oil tank	1	39	110851	. Pin-Dowel	1
4	86306	Gasket-Cover	1	40*	87152	. Insert-Bearing	1
5	101143	Nut-Hx 1/4-20	1	41	92518	①. Piston Asy "A"	1
6	102523	Washer-1/4	1		92519	②. Piston Asy "B"	1
7	69832	Bumper-Front	1		92520	③. Piston Asy "C"	1
8	91582A	① Mount-Front	1	42	87854	. . Ring Set-Piston	1
8	93926	② Mount-Front	1	43	111021	. . Bearing-Needle	2
9	87270	Cap-Oil tank	1	44	110338	Screw-Pan hd 8-32 x 1/2	2
10	87269	. Retainer-Valve	1	45	110613	Washer-#8	2
11	86402	. Valve	1	46	84156	Housing-Pump	1
12	101148	"O" Ring	1	47	62262	Cap-Housing	1
13	110865	Screw-Skt hd 10-24 x 7/8	1	48	92902	Plunger-Pump	1
14	100003	Washer-#10	1	49	105614	"O" Ring	1
15	89115B	Pump Asy-Pulse	1	50	66687	Spring-Pump	1
16	91774	. Sleeve	1	51	91669	Gasket-Pump	1
17	92818	. Seal-Pulse pump	1	52	91668	Valve-Pump	1
18	60260B	. Piston Asy-Pump	1	53	91672	Hose-Oil	1
19	105603	. "O" Ring	1	54	51506	. Screen-Hose	1
20	86182	. Ring-Piston	1	55	100955	Nut-Hex 8-32	1
21	60259	. Spring-Piston	1	56	69020	Pin-Piston	1
22	62227	. Sleeve-Adjustment	1	57	85237	Connecting Rod Asy	1
23	91259	. Pad-Oil pump	1	58	61627A	. Screw-Special	2
24	110386	. Screw-Hx hd 8-32 x 1	1	59	85246	. Roller-(set of 22)	1
25	92844	. Spring-Outlet valve	1	60	61618	Seal-Oil	1
26	102809	. Ball-Outlet valve	1	61	63464	Ring-Snap	1
27	63097	Spark Plug (A)	1	62	63429B	Bearing-Ball	1
27	63432	Spark Plug (D, F, J)	1	63*	110260	Seal-Oil	1
27	93017	Spark Plug (B, E)	1	64*	104357	Bearing-Needle	1
28	94273	Valve-DSP	1	65	92885	Crankshaft	1
29	85505	Washer-Valve	1	66	110563	Screw-Skt hd 8-32 x 1/4	2
30	110681	Screw-Skt hd 10-24 x 1/4	1	67	87193	Stop-Reed	1
31	110644	Screw-Hx hd 8-32 x 1-1/2	1	68	85585A	Valve-Reed	1
32	62106	Screw Asy-Sealing	4	69	101563	Screw-Skt 10-24 x 1-1/4	2
33	62842	Washer-Sealing	4	70	93016A	Cover-Spark Arrester	1
34	95167	③ Kit-Cyl., C' case, piston	1	71	93014	Baffle-Spark Arrester (A)	1
35	110288	. Screw-Hx hd 8-32 x 3/4	2	72	110529	Screw-Hx hd 10-24 x 1/2	1
36	110963	. Screw Hx hd 8-32 x 1W	1	73	84578	Screw-Special	1
				74	84579	Plate-Lock	1
				75	93011	Body & Duct Asy	1
				76	84577A	Gasket-Muffler	1

- *These three items are contained in Needle Insert/Bearing Asy, P/N 87151.
- ① Used on models with serial number prefix 12- and 13-; also used on models with serial number prefix 14- with suffix letter J.
- ② Used on models with serial number prefix 14- with suffix letter A, B, D, E & F.
- ③ 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".