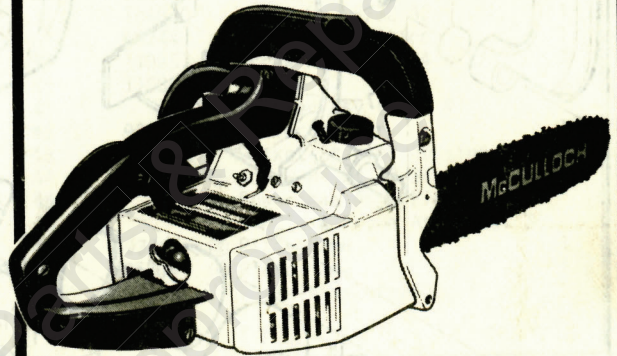


ILLUSTRATED PARTS LIST

MODELS	SERIAL NUMBER PREFIX	MODELS	SERIAL NUMBER PREFIX
600018B	11-,13-,14-	600018H	14-, 15-
600018C	11-,13-,14-	600018K	11-, 12-, 13-, 14-,15-,16-
600018D	15-	600018P	11-, 13-, 14-, 15-
600018E	11-,13-,14-	600018U	11-, 13-, 14-, 15-,16-
600018F	11-,13-,14-		
600018G	14-,15-,16-		

Pro Mac 510 Chain Saw



McCulloch chain saws are identified by a model number (in this instance, 600018) followed by a suffix letter (A, B, C, etc.) 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 versions of the chain saw model.

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

Part numbers in this IPL which were not in the previous 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.

September 1982

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Pro Mac 510

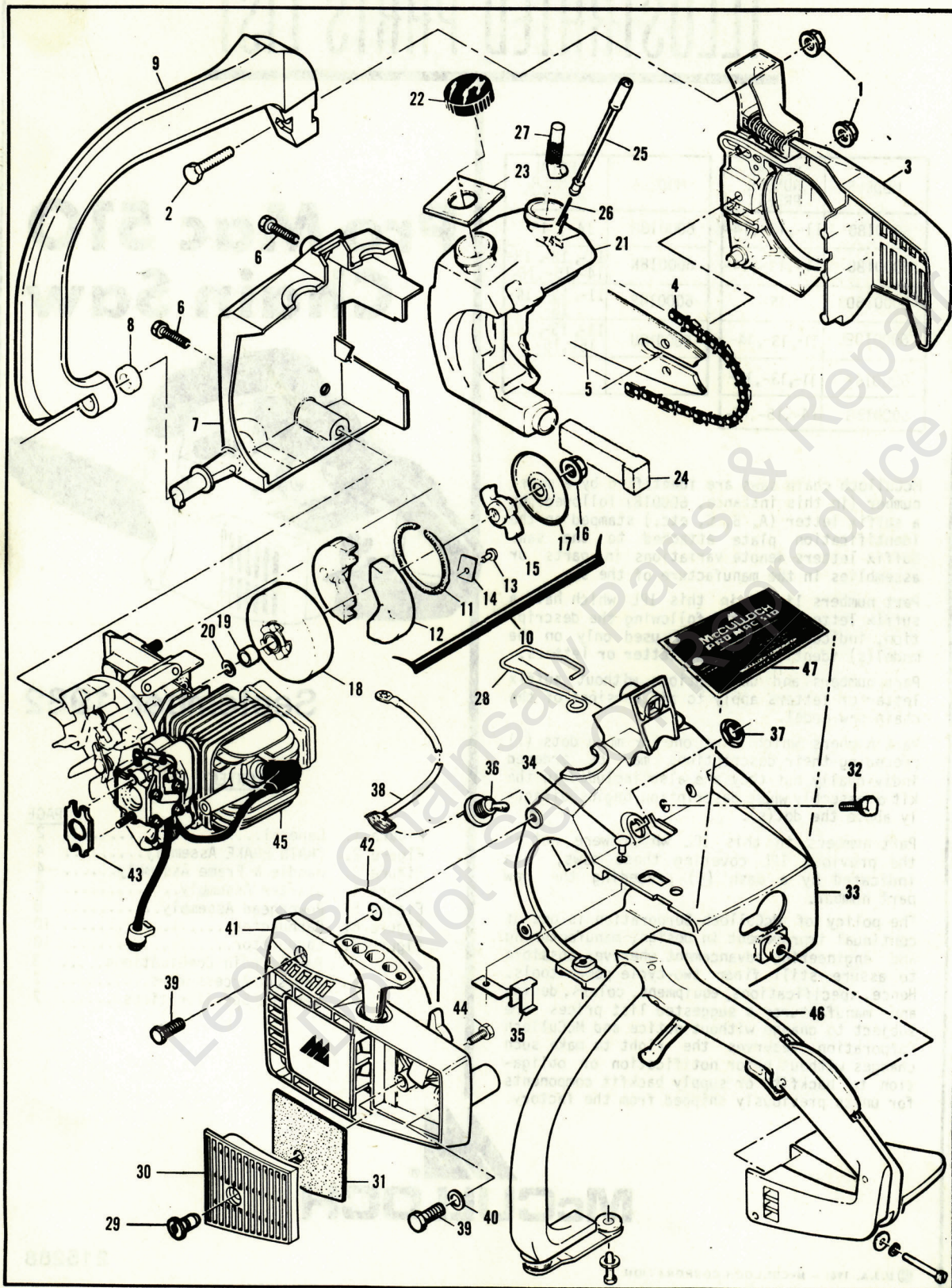


Figure 1. General

Figure 1. General

ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASY.	ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASY.
1	110676	Nut-Hx 1/4-28	2	23	91148	. Seal-Fuel vent	1
2	110972	Screw-Hx 1/4-28 x 3/4	1	24	84956	. Pickup-Fuel	1
3		CHAIN BRAKE ASY (Figure 2)		25	83900A	. Piston-Pulse Oiler	1
4		Chain Asy (Below)	1	26	83946	. Spring-Piston	1
5		Bar (Below)	1	27	85557	. Body-Oiler	1
6	110639	Screw-Hx hd 12-24x1	2	28	93295	Rod-Oiler	1
7	92863	Cover-Fuel & Oil tank	1	29	89070	Nut-Air cleaner cover	1
8	93194A	Washer-Rubber	1	30	89069	Cover-Air cleaner	1
9	92480	Lever-Handguard	1	31	92410	Filter-Air	1
10	213278 ①	Clutch Kit	1	32	110953	Screw-Hx hd 12-24 x 5/8	3
10	213277 ②	. Clutch Asy	1	33	89051B ③	Shroud	1
11	93608	. . Spring Asy	1	33	213822 ④	Shroud/Latch Asy	1
12		. . Shoe-Clutch	2	34	111007 ④	. Rivet	1
13	110957	. . Rivet	2	35	93912 ④	. Spring-Throttle latch	1
14	85064	. . Plate	2	36	92649	Kit-Ignition switch	1
15	94242 ②	. . Rotor	1	37	104810	. Nut-Hx 15/32-32	1
15	94247 ①	. Rotor Kit	1	38	69344	Wire Asy-Ignition	1
16	94244 ②	. . Nut-Clutch	1	39	110953	Screw-Hx hd 12-24 x 5/8	3
17	94243 ②	. . Plate-Dust	1	40	110882	Washer	1
18	85504	Drum & Spkt Asy-.250P (B,C,F,K,P,U)	1	41		Starter Asy (Fig. 4)	
19	67650	Bearing-Spkt (B,C,F,K,P,U)	1	42	93236	Deflector-Air	1
18	95197	Drum/Spkt/Brng Asy - .375P (E, G)	1	43	94142	Gasket-Starter housing	1
19	91222	. Kit-Needle brng (E, G)	1	44	102762 ⑤	Screw-Hx hd 10-24 x 1/2	1
20	67303	Washer-Sprocket (B,C,F,K,P,U)	1	45		Powerhead Asy (Fig. 5)	
21	91454A	Tank Kit-Fuel & Oil	1	46		Handle & Frame Asy (Fig. 3)	
22	91283	. Cap-Fuel & Oil (unvented)	2	47	93383 ③	Plate-Name	1
				47	95204 ④	Plate-Name	1
				47	93908	Plate-Name, French (E)	1

- ① Used on models with serial number prefix 11-, 12- and 13-.
- ② Used on models with serial number prefix 14- and 15-.
- ③ Used on models with serial number prefix 11-.
- ④ Used on models with serial number prefix 12-, 13-, 14-, 15- and 16-.
- ⑤ Used on models with serial number prefix 13-, 14-, 15- and 16-.

Bar & Chain Combinations

91663	Bar - 14" Mini Pro (B)
92625N	Chain - SM250GL (B)
-214345	Bar - 16" Mini Pro (C, F, K, P, U)
-214239N	Chain - SM250GL (C, F, K, P, U)
-214236	Bar - 16" Mini Pro (G)
-214241	Chain - MP370G (G)

Pro Mac 510

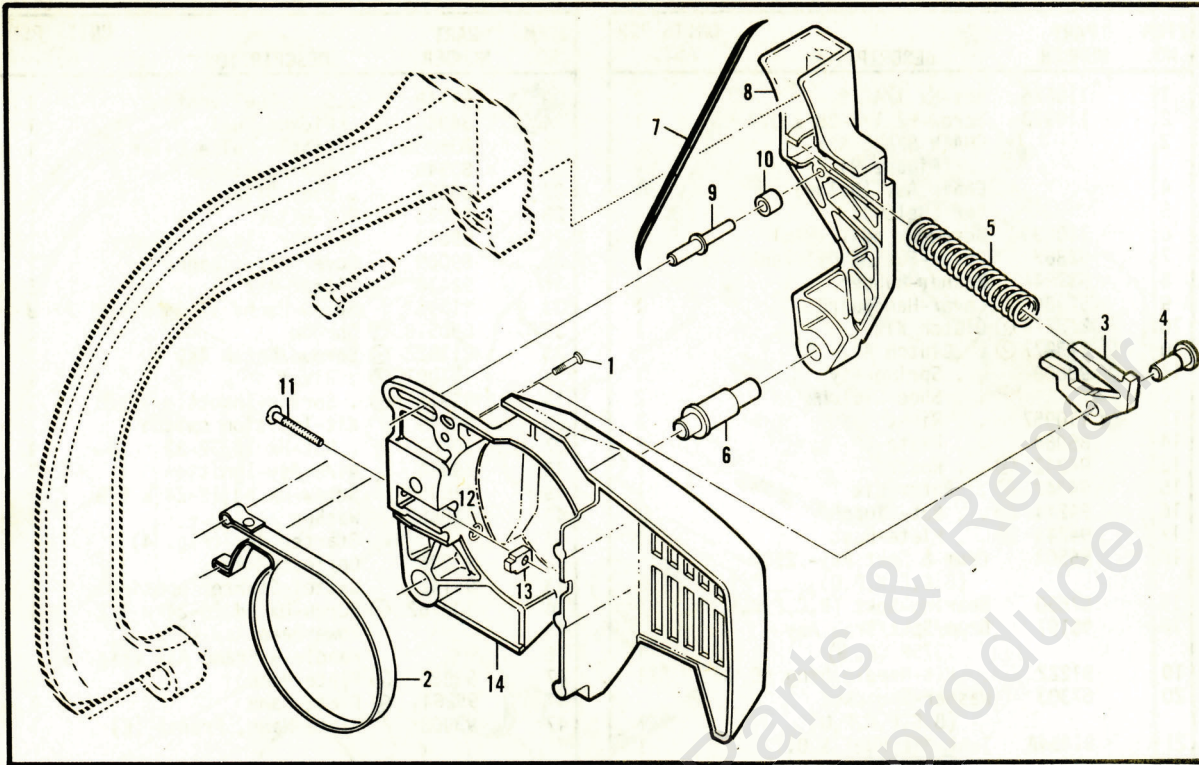


Figure 2. CHAIN BRAKE Assembly

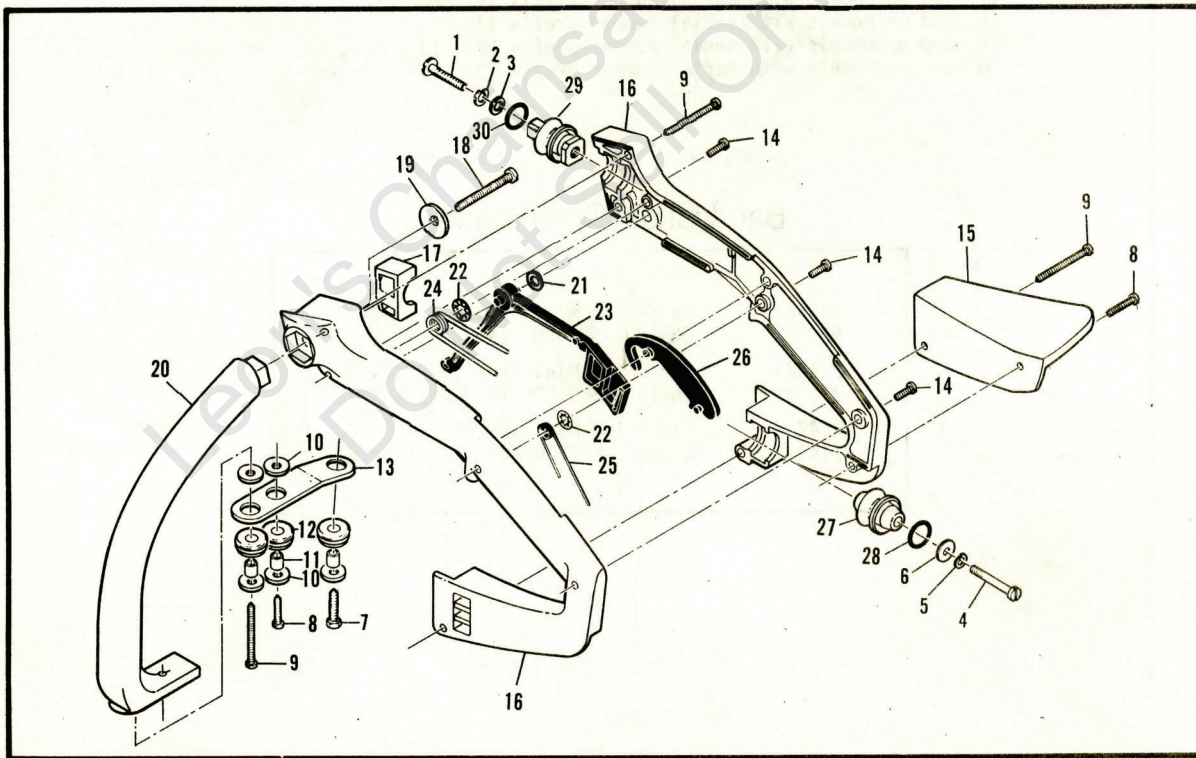


Figure 3. Handle & Frame Assembly

Figure 2. CHAIN BRAKE Assembly

ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASY.
	214377	CHAIN BRAKE Asy	1
1	111047	① . Screw-Fil8-32 x 5/8	1
2	94709	② . Band-Brake	1
2	92487	③ . Band-Brake	1
3	94006	② . Latch	1
3	93092	③ . Latch	1
4	93602	. Pivot - Latch	1
5	94007	② . Spring-Compression	1
5	93140	③ . Spring-Compression	1
6	92482	. Pivot-Lever	1

ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASY.
7	214375	. Lever Asy-Actuating	1
8	92867	. . Lever	1
9	213907	. . Pin-Roller	1
10	214368	. . Bearing-Roller	1
11	90658	. Screw-Adjusting	1
12	110907	. Ring-Retaining	1
13	84929	. Nut-Bar adj.	1
14	94174	② . Housing-Brake	1
14	92862	③ . Housing-Brake	1

① Not used on some early models.

② Used on models with Screw, P/N 111047.

③ Used on models without Screw, P/N 111047.

Figure 3. Handle & Frame Assembly

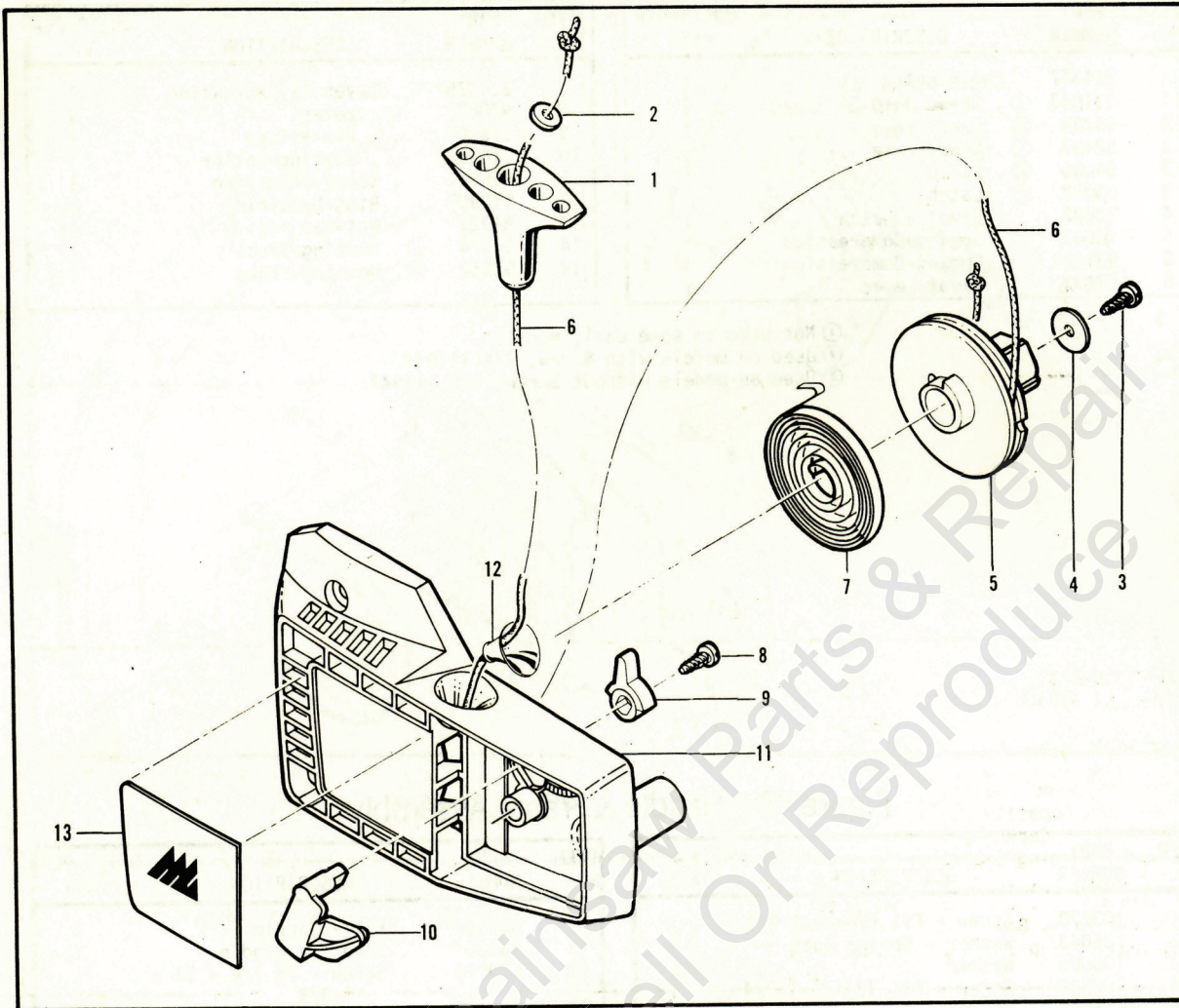
ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASY.
1	103270	Screw - Fil 1/4-20x1-1/2	1
2	105043	Washer - Spring lock	1
3	100005	Washer	1
4	102208	Screw - Fil 1/4-20x1-3/4	1
5	105043	Washer - Spring lock	1
6	110870	① Washer	1
	93060A	Kit - Handle and Frame	1
7	110981	. Screw-Hx 12-24 x 13/16	1
8	111011	. Screw - Pn 10-16 x 7/8	2
9	110977	. Screw-Pn 10-16 x 1-5/8	3
10	110882	. Washer	5
11	93057	. Spacer - Mount	3
12	110989	. Grommet	3
13	93031	. Link Mount	1
14	110978	. Screw-Pn 8-16 x 5/8	3
15	93026	. Guard - Chain	1

ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASY.
16	94054	. Kit - Handle	1
17	93030	. Insert - Handle	1
18	110976	. Screw - Pn 1/4 - 14 x 1-3/4	1
19	110870	. Washer	1
20	94052	. Frame	1
21	110960	. Washer - Wavey	1
22	110936	. Retainer - Spring	2
23	91162A	Trigger - Throttle	1
24	90606	Spring - Trigger	1
25	90615	Spring - Trigger release	1
26	91504	Release - Trigger	1
27	91171	Mount	1
28	105615	"O" Ring	1
29	91170	Mount Asy	1
30	105615	. "O" Ring	1

① Used on models with serial number prefix 11-.

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Figure 4. Starter Assembly



ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASY.
	213260	Starter Assembly	1
1	91255	. Kit - Starter handle	1
2	105490	. Washer	1
3	110041	. Screw - Pan hd 8-32 x 1/2	1
4	68497	. Washer	1
5	213261	. Drum/Rope Assembly	1

ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASY.
6	83203	. Rope-Starter	1
7	83078	. Spring-Rewind	1
8	110041	. Screw-Pan hd 8-32 x 1/2	1
9	91182	. Lever-Choke	1
10	91183	. Plate-Choke	1
11	94148	. Housing-Starter	1
12	67571	. Guide-Rope	1
13	91570	. Plate	1

Pro Mac 510

Tools & Accessories

PART NUMBER	DESCRIPTION
91735	Kit - Spike
110928	. Screw Hx hd 10-24 x 1/2
95169	Kit - Spark Arrester
91485	Wrench - Socket
85687	Wrench - Screwdriver
88755	Scrench
93284	Case - Carrying, 14"
92913	. Bar Guard 14"
93090	Guide - Timing
90256	Kit - Tune-up
93285	Case - Carrying, 16"
92896	. Bar Guard 16"

PART NUMBER	DESCRIPTION
-214215	Guide - File
93900	Kit - Pressure Test
90533	Tool - Pressure Test
501334	Tester - Ignition
-214194	Lubri - Gun
85702	Lubricant - Custom, 6 oz. can
85703	Lubricant - Custom, 6 oz. cans 1-6 pack
67537	Loctite
69794	Locquic
110083	R.T.V. Sealant
-214211	Kit - Tool Maintenance

Service Specifications

Displacement	2.3 cu. in. (38 cc)	Timing	26° B.T.D.C.
Bore and Stroke	1.562 x 1.201 in. (39.68 x 30.51 mm)	Carburetor	Diaphragm Type, 2 needle adjustment
Bearings	Main: Needle Con Rod: Needle	Fuel Type	Regular Grade, leaded
Intake System	3rd Port, Piston Timed	Fuel - Oil Mixture	40:1 w/McCulloch Oil
Fuel Tank Capacity	11.8 fl. oz. (320 cc)	Fuel Filtering System	Felt Fuel Filter
Chain Oiler Capacity	3.2 fl. oz. (95 cc)	Air Filtering System	Felt Air Filter
Clutch Engaging Speed	3800 to 4100 R.P.M.	Piston Rings	2 Cast Iron Compression Rings
Idle Speed	2700 to 2900 R.P.M.	Spark Plug Gap025 in. (.635 mm)
Ignition	Magneto	Weight (Power Unit Only)	10.6 lbs. (4.8 kg)
Breaker Point Gap018" (.457 mm)		
Lamination Gap008 to .012" (.203 to .304 mm)		

Pro Mac 510

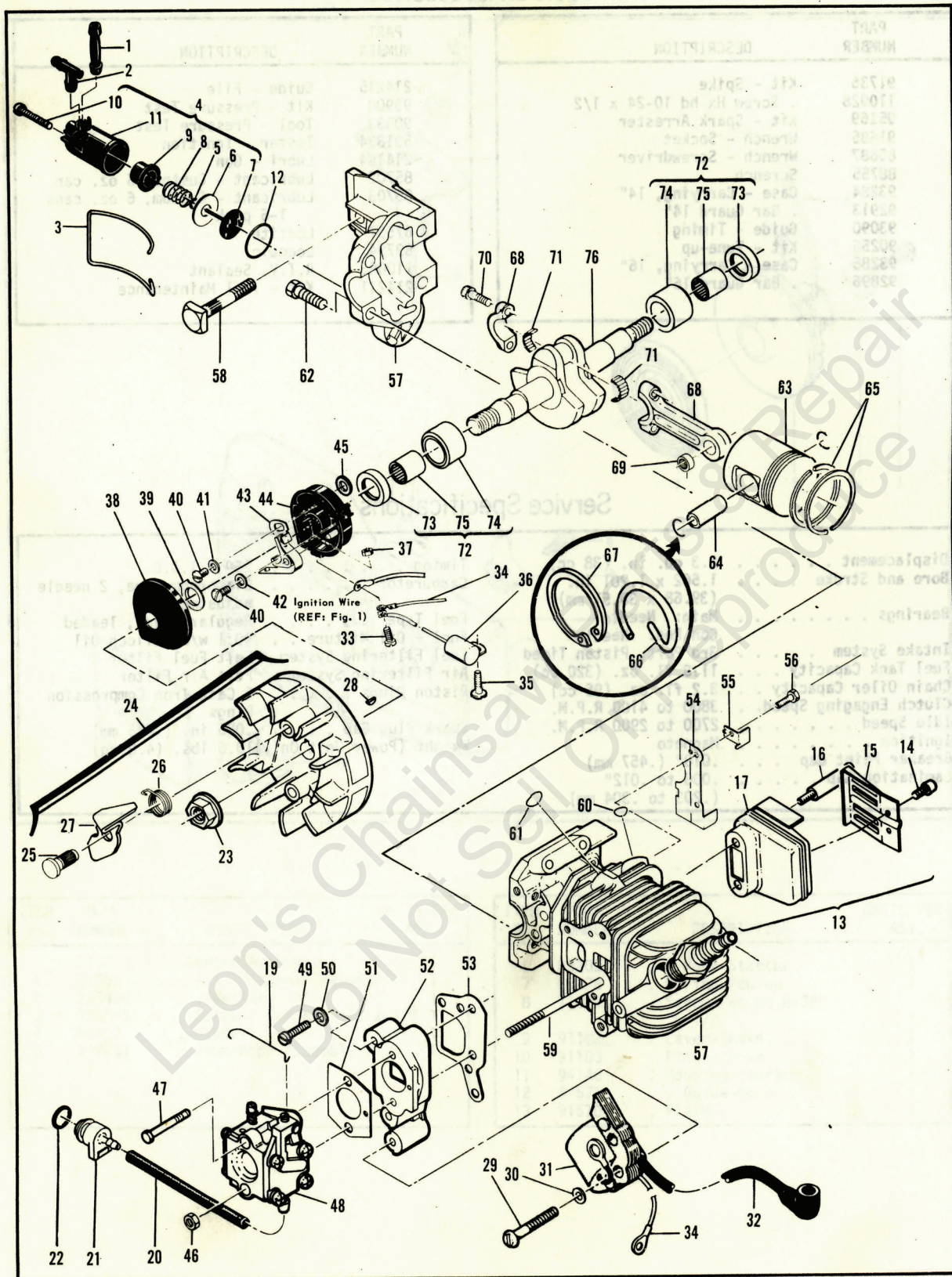


Figure 5. Powerhead Assembly

Figure 5. Powerhead Assembly

ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASY.	ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASY.
1	83898	Connector - Outlet	1	40	110969	Screw - Hx hd 8-32 x 1/2	2
2	84613	Connector - Pump	1	41	69322	Washer - Special	1
3	83896	Bail - Mounting	1	42	105976	Washer - #8	1
4	83886	Pump Assembly - Pulse	1	43	88811	Breaker Assembly	1
5	105603	. "O" Ring	1	44	84505A	Kit - Breaker box	1
6	85769	. Ring - Pump piston	1	45	92037	. Washer	1
7	92204	. Piston Assembly - Pump	1	46	105367	Nut - Hx 10-24	1
8	83891	. Spring - Pump	1	47	110614	Screw - Hx hd 10-24 x 2-3/8	1
9	83890	. Sleeve - Pump	1	48		Carburetor Assembly (Figures 6, 7)	
10	110651	. Screw - Adjustment	1	49	110652	Screw - Pan hd 8-32 x 1-1/8	1
11	83887	. Body Assembly - Pump	1	50	100080	Washer - #8	1
12	110653	"O" Ring	1	51	89057	Gasket - Carburetor	1
13	214746 ①	Kit - Muffler	1	52	89056	Insulator	1
14	110681 ①	. Screw - Skt hd 10-24 x 1/4	2	53	89054	Gasket - Insulator	1
15	92961 ①	. Deflector - Exhaust	1	54	89648A	Shield	1
16	213327 ①	. Screw - Special	2	55	93353	Deflector - Sawdust	1
17	213346 ①	. Body - Cover	1	56	110674	Screw - Hx hd 10-24 x 1/2 s/t	2
13	92962 ②	Kit - Muffler	1	57	93764 ⑤	Cylinder/C'case Assembly	1
14	110681 ②	. Screw - Skt hd 10-24 x 1/4	2	58	83856 ⑤	. Bolt - Bar mounting	1
15	92961 ②	. Deflector - Exhaust	1	59	94519 ⑥	. Stud	1
16	93036 ②	. Screw - Special	2	59	94143 ⑦	. Stud	1
17	93655 ②	. Body - Cover	1	57	214156 ⑧	Cylinder/C'case Assembly	1
18	63432	Spark Plug (K, P, U)	1	58	83856 ⑧	. Bolt - Bar mounting	1
18	93017	Spark Plug (B, C, E, F, H)	1	59	94143 ⑧	. Stud	1
19	89060	Rod - Throttle	1	60	110914 ⑧	. Plug - Cup	2
20	89059	Hose - Fuel	1	61	111024 ⑧	. Plug - Cup	2
21	90660	Adapter - Fuel hose	1	62	110639	Screw - Hx hd 12-24 x 1	4
22	110908	"O" Ring	1	63	91704 ⑤	Piston Assembly	1
23*	-110961	Nut - Hx 5/16-24	1	64	88126 ⑤	. Pin - Piston	1
24	91961 ③	Flywheel Pawl Assembly	1	65	91703 ⑤	. Ring Set - Piston	1
25	68796 ③	. Pin - Pawl	2	66	92023 ⑤	. Ring - Retaining	2
26	67814 ③	. Spring - Pawl	2	63	94661 ⑧	Piston Assembly	1
27	91872 ③	. Pawl - Starter	2	64	92836 ⑧	. Pin - Piston	1
24	94513 ④	Flywheel/Pawl Assembly	1	65	91703 ⑧	. Ring Set - Piston	1
25	68796 ④	. Pin - Pawl	2	66	92023 ⑧	. Ring - Retaining	2
26	67814 ④	. Spring - Pawl	2	67	111026 ⑨	. Ring - Snap	2
27	94493 ④	. Pawl - Starter	2	68	91705 ⑤	Connecting Rod Assembly	1
28	102164	Key - Woodruff	1	69	110933 ⑤	. Bearing - Caged	1
29	110586	Screw - Pan hd 8-32 x 1-3/4	2	70	66853 ⑤	. Screw - Special	2
30	100080	Washer - #8	2	71	68095 ⑤	. Roller - Needle (set of 20)	1
31	84957	Coil & Lamination	1	68	94135 ⑧	Connecting Rod Assembly	1
32	50120	. Wire Assembly - Spark plug	1	69	110984 ⑧	. Bearing - Needle	1
33	110617	Screw - Pan hd 6-32 x 3/4	1	70	94654 ⑧	. Screw - Connecting rod	2
34	69344	Wire Assembly - Coil	1	71	68095 ⑧	. Roller - Needle (set of 20)	1
35	110014	Screw - Pan hd 8-32 x 1/2	1	72	93763 ⑧	Sleeve Assembly - Bearing	2
36	85358	Condenser	1	73	83859 ⑧	. Seal - Oil	2
37	100035	Nut - Hx 6-32	1	72	91566 ⑤	Sleeve Assembly - Bearing	2
38	67841	Cover - Breaker box	1	73	83859 ⑤	. Seal - Oil	2
39	69323	Seal - Breaker box	1	74	91422 ⑤	. Sleeve	2
				75	213282 ⑤	. . Bearing - Needle	2
				76	-91932	Crankshaft	1

*Flywheel nut torque should be 190 to 200 pound x inches (21.5 to 22.6 N.m).

- ① Used on models with serial number prefix 15- and 16-.
- ② Used on models with serial number prefix 11-, 12-, 13-, and 14-.
- ③ Used on models with **black** Drum/Rope Assembly, P/N 92316.
- ④ Used on models with **white** Drum/Rope Assembly, P/N 213261.
- ⑤ Used on models with serial number prefix 11-, 12-, and 13-.
- ⑥ Used on models with serial number prefix 11- and 12-.
- ⑦ Used on models with serial number prefix 13-.
- ⑧ Used on models with serial number prefix 14-, 15- and 16-.
- ⑨ One of two types of piston pin retainers used on models with serial number prefix 14-. Replacement retainers must be the same type that the piston was originally equipped with. Identify the retainer before ordering parts.

Pro Mac 510

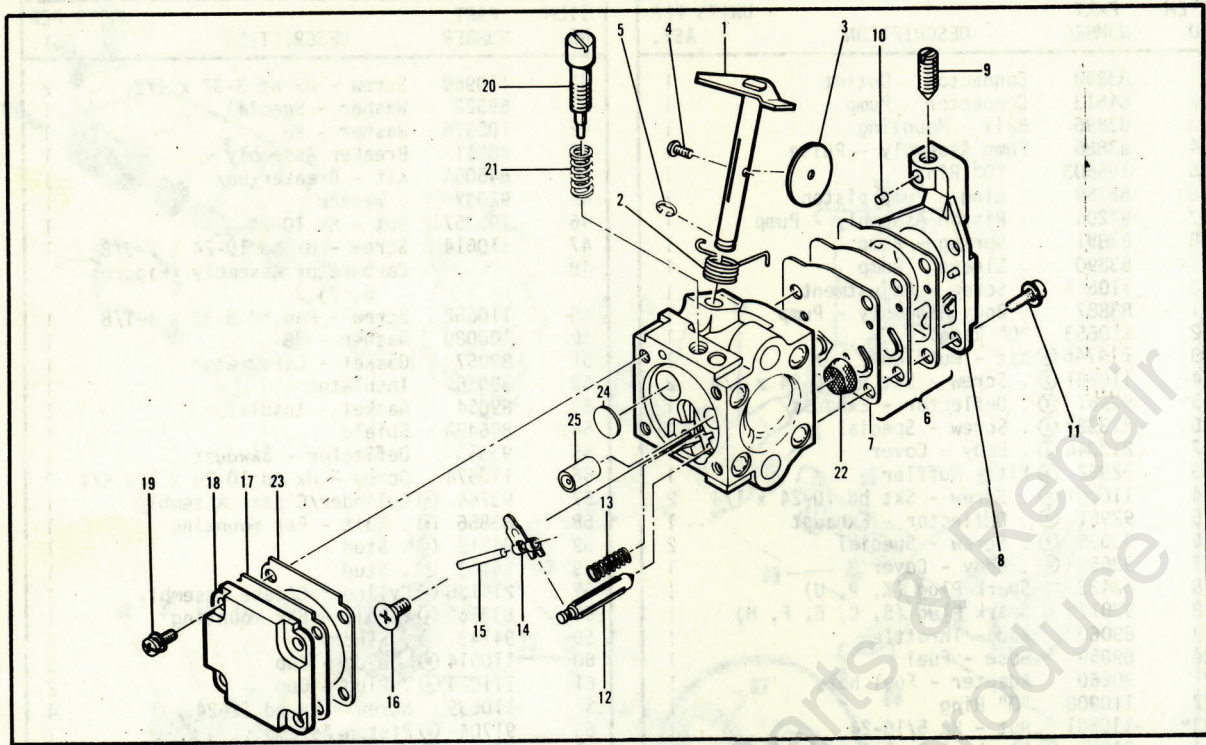


Figure 6. Carburetor Assembly

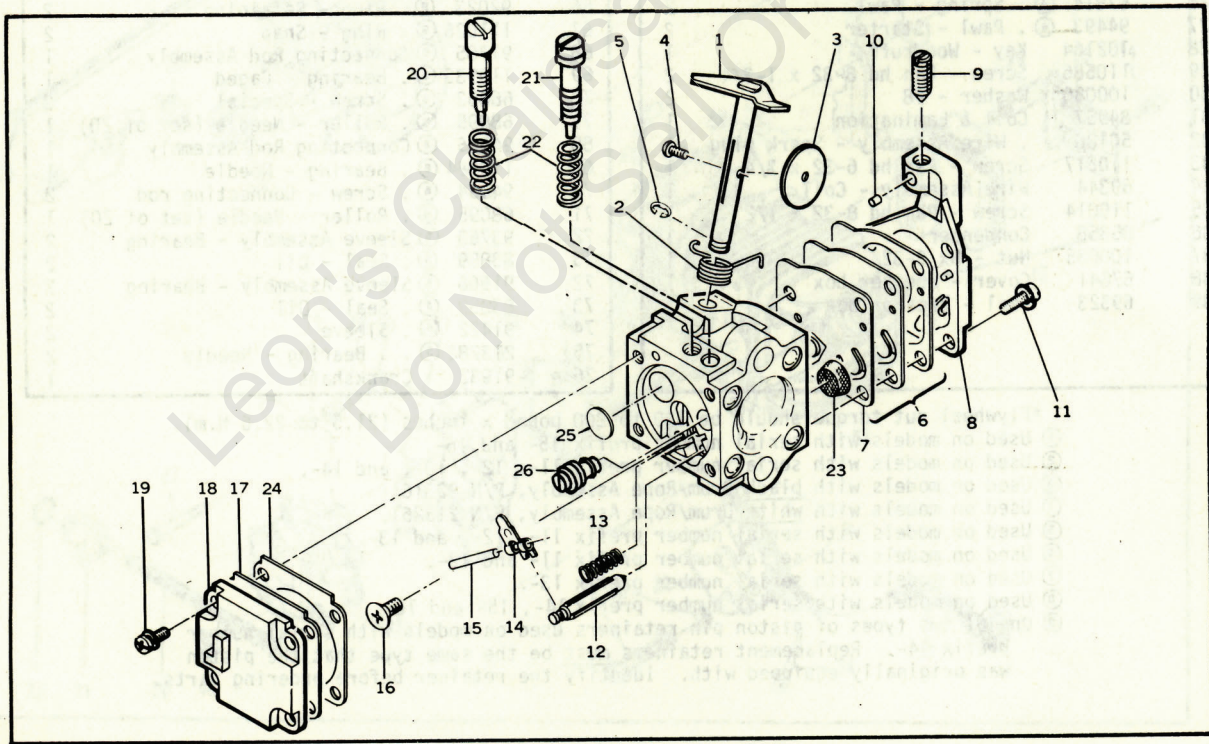


Figure 7. Carburetor Assembly

Figure 6. Carburetor Assembly

ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASY.	ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASY.
	91571A	① Carburetor Asy (Zama)	1	17	91815	③ Diaphragm Asy-Metering	1
	91571B	② Carburetor Asy (Zama)	1	18	91816	. Cover-Diaphragm	1
1	91801	. Shaft Asy-Throttle	1	19	91817	. Screw-Diaphragm cover (m3)*	4
2	91802	. Spring-Throttle return	1	20	91818	③ . Needle-Idle mixture	1
3	91803	. Plate-Throttle	1	21	91819	③ . Spring-Needle	1
4	91804	. Screw-Plate (m3)*	1	22	91820	③ . Screen-Filter	1
5	91805	. "E" Ring	1	23	91821	④ . Gasket-Metering diaphragm	1
6	91824	③ . Kit-Diaphragm & Gaskets	1	24	92097	. Welch Plug	1
7	92093	. Diaphragm-Fuel pump	1	25**	91822	③ . Orifice-Main fuel (press-in)	1
8	91806	. Cover-Fuel pump	1	25**	33627	. Orifice-Main fuel (screw-in)	1
9	91807	. Screw-Idle speed	1	25**	92751	① Orifice-Main fuel (press-in)	1
10	91808	. Insert-Friction	1	25**	93628	④ Orifice-Main fuel (screw-in)	1
11	91809	. Screw-Pump cover (m4)*	4				
12	91810	③ . Needle-Inlet	1				
13	91811	③ . Spring-Lever	1				
14	91812	③ . Lever-Inlet needle	1				
15	91813	③ . Pin-Lever	1				
16	91814	. Screw-Lever pin (M3)*	1				

*The "m" denotes metric screw size.

**One of two types of fuel orifices used. Identify the correct component before ordering for service replacement.

- ① Used on models with serial number prefix 11-.
- ② Used on models with serial number prefix 12-.
- ③ Contained in Repair Kit, P/N 91823.
- ④ Recommended for use above 5,000 ft. altitude.

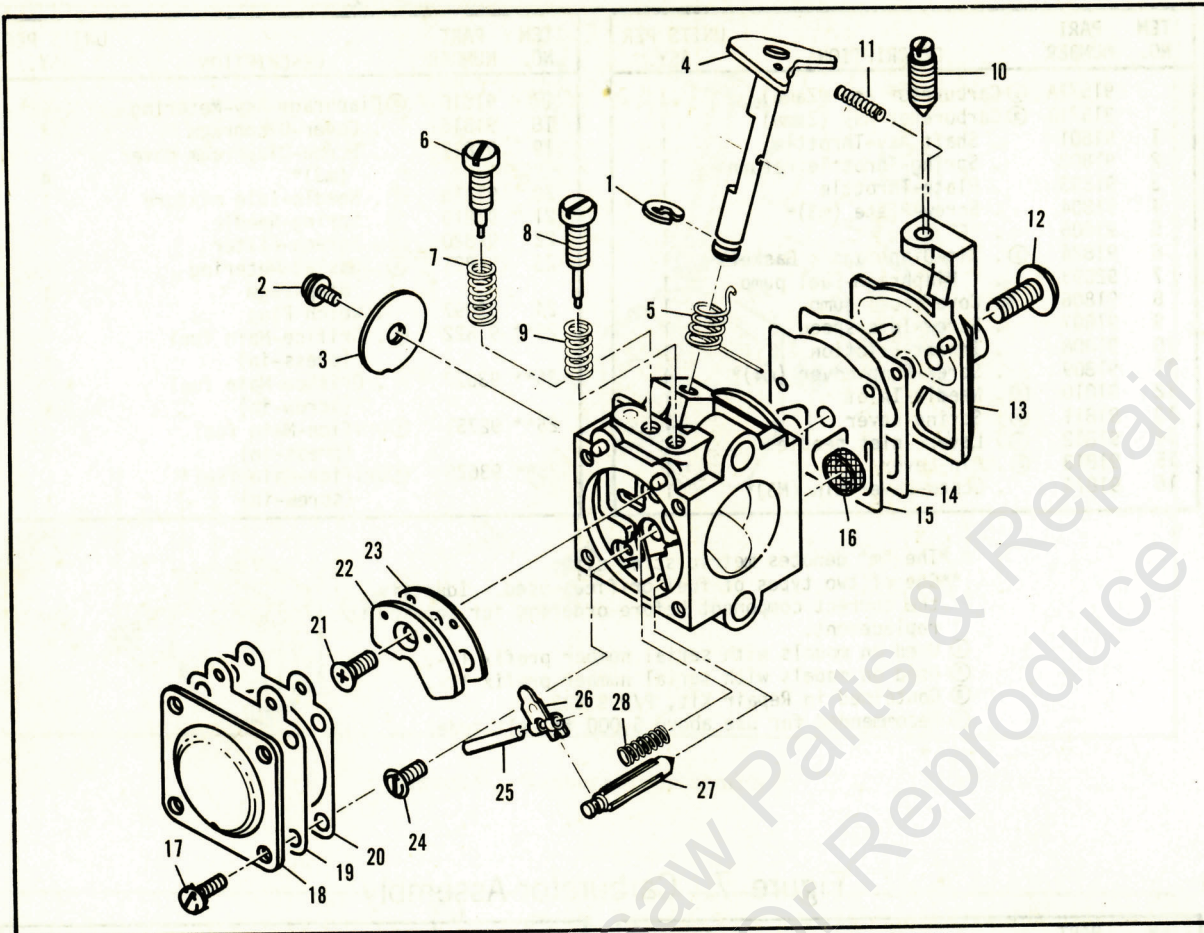
Figure 7. Carburetor Assembly

ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASY.	ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASY.
	-93766	① Carburetor Asy (Zama)	1	15	91813	② . Pin-Lever	1
1	91801	. Shaft Asy-Throttle	1	16	91814	. Screw-Lever pin (m3)*	1
2	91802	. Spring-Throttle return	1	17	91815	. Diaphragm Asy-Metering	1
3	91803	. Plate-Throttle	1	18	91816	. Cover-Diaphragm	1
4	91804	. Screw-Plate (m3)*	1	19	91817	② . Screw-Diaphragm cover (m3)*	4
5	91805	. "E" Ring	1	20	91818	③ . Needle-Idle mixture	1
6	91824	② . Kit-Diaphragm & Gaskets	1	21	94033	② . Needle-High speed	1
7	92093	. Diaphragm-Fuel pump	1	22	91819	② . Spring-Needle	2
8	91806	. Cover-Fuel pump	1	23	91820	② . Screen-Filter	1
9	91807	. Screw-Idle speed	1	24	91821	② . Gasket-Metering diaphragm	1
10	91808	. Insert-Friction	1	25	92097	. Welch Plug	1
11	91809	. Screw-Pump cover (m4)*	4	26	93950	② . Orifice-Main fuel	1
12	91810	② . Needle-Inlet	1				
13	91811	② . Spring-Lever	1				
14	91812	② . Lever-Inlet needle	1				

*The "m" denotes metric screw size.

- ① Used on models with serial number prefix 13-, 14-, 15- and 16-.
- ② Contained Repair Kit, P/N 94141

Figure 8. Carburetor Assembly



ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASY.
-94274	①	Carburetor Asy - Walbro (WA-48)	1
1	94749	. Ring - Retaining	1
2	*83755	. Screw - Shutter	1
3	94778	. Valve - Throttle	1
4	94777	. Shaft Asy - Throttle	1
5	*94781	. Spring - Throttle return	1
6	*94783	. Needle - Idle	1
7	*94763	. Spring - Idle needle	1
8	*94782	. Needle - Hi speed	1
9	*67502	. Spring - Hi speed	1
10	94779	. Screw - Idle adjust	1
11	*67504	. Spring - Friction	1
12	94760	. Screw - Pump cover	1
13	94776	. Cover - Pump	1

ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASY.
14	**94754	. Gasket - Pump	1
15	**94758	. Diaphragm - Pump	1
16	*94769	. Screen - Inlet	1
17	80529	. Screw - Diaphragm cover	4
18	94750	. Cover-Metering diaphragm	1
19	**94759	. Diaphragm Asy-Metering	1
20	**94755	. Gasket - Metering diaphragm	1
21	*94780	. Screw-Circuit plate	1
22	94771	. Plate - Circuit	1
23	**94756	. Gasket - Circuit plate	1
24	67500	. Screw - Metering lever	1
25	*94770	. Pin - Metering lever	1
26	*94772	. Lever - Metering	1
27	*67491	. Valve - Needle	1
28	*94764	. Spring-Metering lever	1

① One of two carburetors used on models with serial number prefix 14-. Before ordering parts, identify the carburetor on the saw.

*Contained in Repair Kit, P/N 94785.

**Contained in Gasket/Diaphragm Kit, P/N 94775.