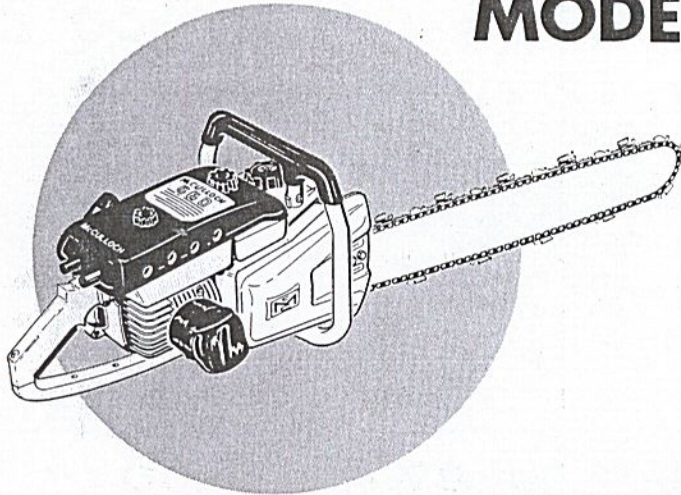


# MASTER ILLUSTRATED PARTS LIST



## MODELS 650 AND 660 SERIES Chain Saws

For cancelled and superseded parts lists see page 5.

OCTOBER 1970

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.

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This Master Illustrated Parts List gives the name, number and interchangeability between engines, of service and replacement parts which were used on or are presently available for all 650 and 660 Series chain saws manufactured to date.

Information about the List and how to use it will be found on the back cover.  
Read the information before you start to use the List.

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84538



# 650-660 Series

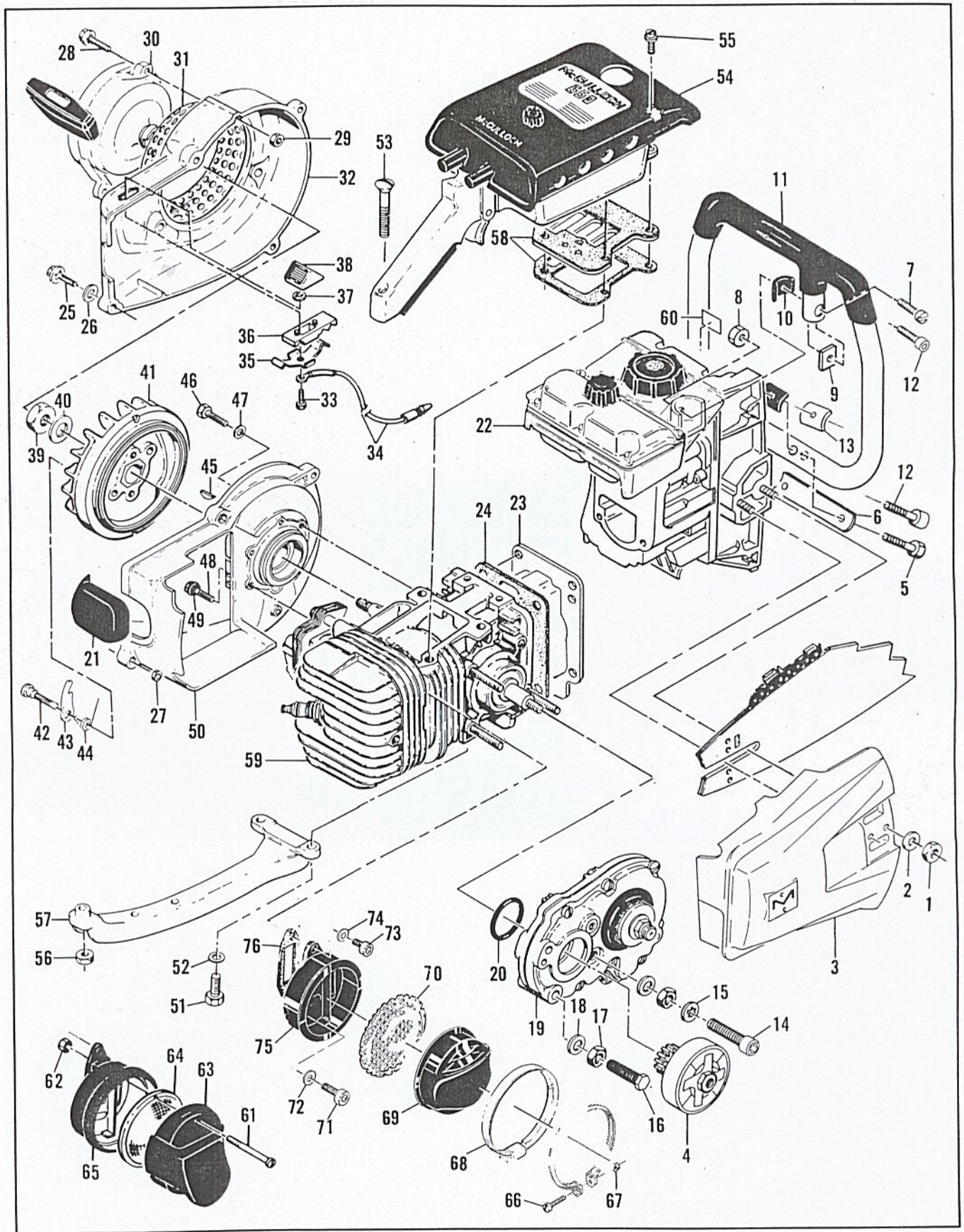


Figure 1. General



FIGURE 1. GENERAL

Item No.	Part Number	Description	Units Per Assy	Usable on Code				
Model 650 and 660 Usable on Code								
	<b>Model</b>	650	650	650	660	660	660	660
	<b>Letter</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>
	<b>Serial Numbers</b>	Up to 10051 Without Prefix	10051 & Up Without Prefix	Prefixed 1-	Prefixed 10-	Prefixed 11-	Prefixed 12-	Prefixed 13-
1	110625	Nut - Hex 3/8-24 .....						
2	100006	Washer - 3/8 .....						
	84623	Washer - 3/8 .....						
3		Guard Assy - Clutch (See Figure 9) .....						
4		Clutch, Drum & Gear Assy (See Figure 9) .....						
5	102130	Screw - Hex hd 1/4-20 x 1-1/2 .....						
6	50215	Clamp - Frame .....						
7	103267	Screw - Fil hd 1/4-20 x 1 .....						
8	101143	Nut - Hex 1/4-20 .....						
9	57133	Saddle - Frame .....						
10	62244	Insulator - Frame .....						
11	83485	Kit - Frame & Grip .....						
12	105187	. Screw - Skt hd 1/4-20 x 1-1/8 .....						
13	83233	. Spacer - Frame .....						
14	101532	Screw - Skt hd 1/4-20 x 1-1/4 .....						
15	105043	Lockwasher - 1/4 .....						
16	103259	Screw - Hex hd 1/4-20 x 1-3/8 .....						
17	101143	Nut - Hex 1/4-20 .....						
18	100004	Washer - 1/4 .....						
19		Transmission Assy (See Figure 9) .....						
20	104535	"O" Ring .....						
21	57565	Cover Assy - Spark plug .....						
22		Oiler Tank & Fuel Tank Assy (See Figure 3) .....						
23	61371A	Cover - Crankcase bottom .....						
	60251A	Cover - Crankcase bottom .....						
24	65654	Gasket - Bottom .....						
25	104815	Screw - Hex hd 10-24 x 7/8 (SEMS) .....						
	102760	Screw - Hex hd 10-24 x 1 .....						
26	110264	Washer - #10 .....						
27	101191	Nut - Hex 10-24 .....						
	101326	Nut - Hex 10-24 .....						
28	104815	Screw - Hex hd 10-24 x 7/8 (SEMS) .....						
29	101191	Nut - Hex 10-24 .....						
30		Starter Assy (See Figure 2) .....						
31	50581A	Guard - Sawdust .....						
32	53488	Fan Housing Assy .....						
33	103672	. Screw - Hex hd 8-32 x 1/2 (SEMS) .....						
34	53490	. Wire Assy - Stop switch .....						
35	59592	. Contact - Switch .....						
36	59591	. Base - Switch .....						
37	100057	. Lockwasher - #8 .....						
38	57718	. Button - Switch .....						
39	101179	Nut - Hex 7/16-20 .....						
40	101270	Washer - 7/16 .....						
41	68282	Flywheel & Pawl Assy .....						
42	36144B	. Pin - Pawl .....						
43	24093	. Pawl - Starter .....						
44	50582	. Spring - Pawl .....						
	66351	. Spring - Pawl .....						
45	103879	Key - Woodruff .....						
46	102289	Screw - Hex hd 10-24 x 3/4 .....						
47	102189	Washer - #10 .....						
48	55494	Screw Assy - Sealing .....						
49	55492	. Washer - Sealing .....						

(This list continued on page 4)



FIGURE 1. GENERAL (CONTINUED)

Item No.	Part Number	Description	Units Per Assy	Usable on Code
50		Crankcase Cover Assy (See Figure 2) .....		All
51	100882	Screw - Hex hd 1/4-20 x 3/4 .....	2	All
52	100004	Washer - 1/4 .....	2	All
53	104435	Screw - Oval hd 10-24 x 1-3/4 .....	1	All
54		Cover & Airbox Assy (See Figure 4) .....		All
55	110127	Screw - Hex hd 10-24 x 7/8 (SEMS) .....	4	All
56	101191	Nut - Hex 10-24 .....	1	All
57	65332	Brace - Handle .....	1	All
58		Reed Plate Assy and Insulator (See Figure 4) .....		All
59		Powerhead Assy (See Figure 8) .....		All
60	59445	Decal - Oiler housing .....	1	All
	63910	Spark Arrester Assy .....	1	A,B,C,D
61	110371	. Screw - Pan hd 10-24 x 1-5/8 .....	2	A,B,C,D
62	101191	. Nut - Hex 10-24 .....	2	A,B,C,D
63	53205B	. Top Assy .....	1	A,B,C,D
64	*51968	. Baffle .....	1	A,B,C,D
65	52424B	. Bottom Assy .....	1	A,B,C,D
66	105052	Screw - Fil hd 10-24 x 3/4 .....	1	E
67	105369	Nut - Hex 10-24 .....	1	E
	68240	Kit - Spark arrester .....	1	E,F,G
68	83368	. Clamp .....	1	E,F,G
69	68238	. Top Assy .....	1	E,F,G
70	69325	. Baffle .....	1	E,F,G
71	101563	. Screw - Skt hd 10-24 x 1-1/4 .....	1	E,F,G
72	83745	. Washer - Special .....	1	E,F,G
73	104895	. Screw - Skt hd 10-24 x 5/8 .....	2	E,F,G
74	83745	. Washer - Special .....	2	E,F,G
75	68241	. Bottom Assy .....	1	E,F,G
76	53652	Gasket - Spark arrester .....	1	A,B,C,D,E,F
	83379	Gasket - Spark arrester .....	1	G

\*61545A Baffle Assy (Alternate)



Master Illustrated Parts List, P/N 84538, supersedes and cancels all previous lists issued for Models 650 and 660 chain saws. Discard the following Illustrated Parts Lists or Parts List Sheets:

- I.P.L. 51565 covering Model 650 saws with serial numbers up to 10051 without prefix.
- I.P.L. 62733A Covering Model 650 saws with serial number 10051 and up, without prefix.
- I.P.L. 66356 and  
     P.L.S. 66372 (2:1)  
     P.L.S. 66374 (3:1) covering Model 650 saws with serial numbers prefixed 1-.
- I.P.L. 67278 and  
     P.L.S. 67279 (2:1)  
     P.L.S. 67284 (3:1) covering Model 660 saws with serial numbers prefixed 10-.
- I.P.L. 69448 covering Model 660 saws with serial numbers prefixed 11-.
- I.P.L. 83444 covering Model 660 saws with serial numbers prefixed 12-.

### SERVICE SPECIFICATIONS

Spark Plug Gap -----	0.025 in.
Lamination Gap -----	0.010 to 0.015 in.
Breaker Point Gap -----	0.018 in.
Carburetor Adjustment	
Idle Needle - Preliminary adjustment 1 turn open.	
Adjust for smooth idle and acceleration.	
Main Needle - Preliminary adjustment 1 turn open.	
Adjust for maximum power under load.	
Torque Values	
Flywheel Nut -----	350 to 400 inch-pounds.
Clutch Nut-----	240 to 300 inch-pounds.
Connecting Rod Screws -----	105 to 110 inch-pounds.



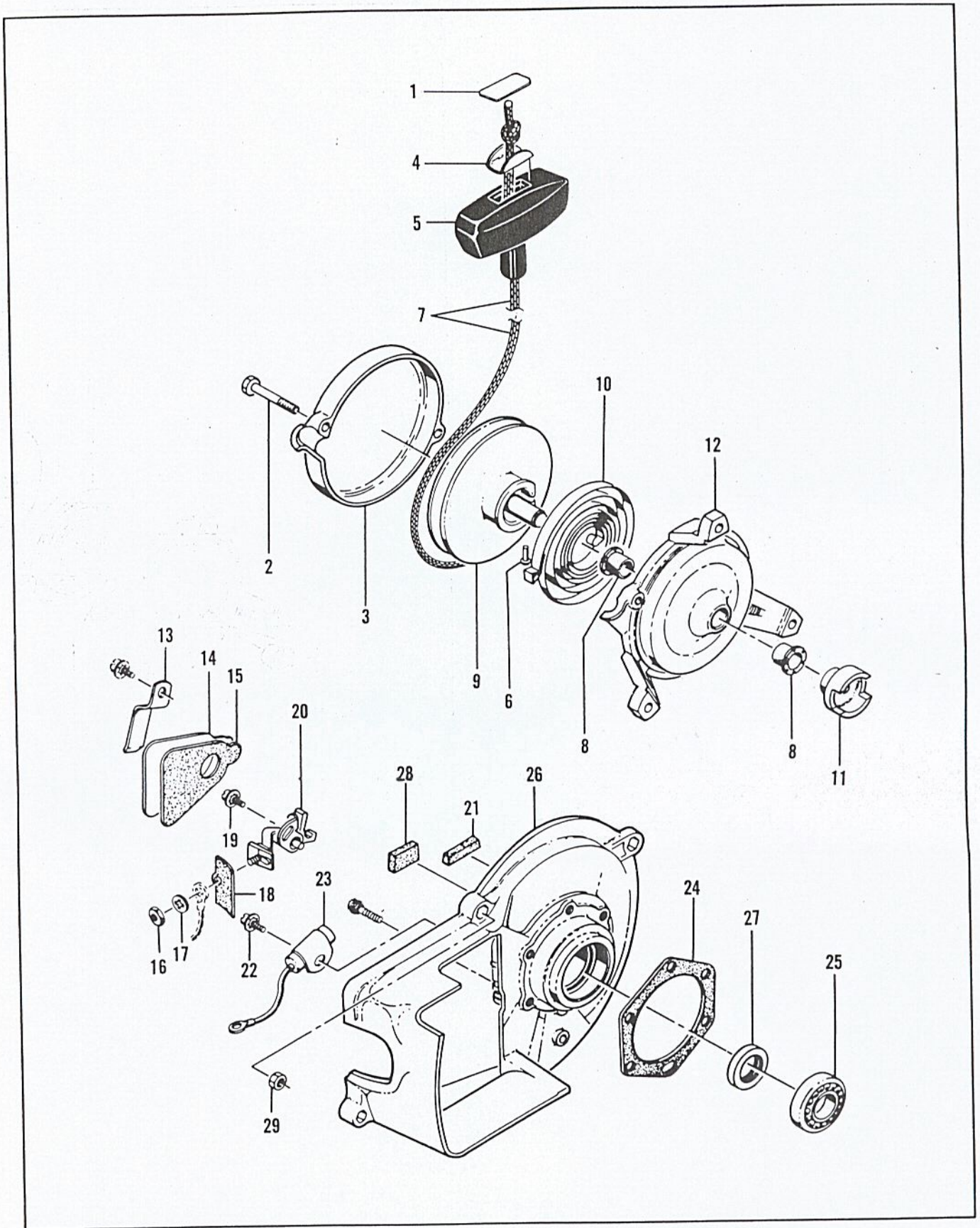


Figure 2. Starter and Crankcase Cover Assemblies



FIGURE 2. STARTER AND CRANKCASE COVER ASSEMBLIES

Item No.	Part Number	Description	Units Per Assy	Usable on Code				
Model 650 and 660 Usable on Code								
	<b>Model</b>	650	650	650	660	660	660	660
	<b>Letter</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>
	<b>Serial Numbers</b>	Up to 10051 Without Prefix	10051 & Up Without Prefix	Prefixed 1-	Prefixed 10-	Prefixed 11-	Prefixed 12-	Prefixed 13-
1	84211	Starter Assy	1	All				
1	57232	. Plate - Handle	1	All				
2	104396	. Screw - Pan hd 10-24 x 3/4	1	All				
3	60647	. Cover - Starter	1	All				
4	57231	. Cup - Handle	1	All				
5	57230	. Handle - Starter	1	All				
6	101136	. Rivet - Rope	1	All				
7	28716	. Rope - Starter	1	All				
8	57535	. Bushing	2	A,B,C,D,E,F				
9	57792	. Drum - Starter	1	All				
10	51665	. Spring - Rewind	1	All				
11	57790	. Ratchet - Starter	1	All				
12	84212	. Base - Starter	1	All				
13	50671	Retainer - Breaker box cover	1	All				
14	50588A	Cover - Breaker box	1	All				
15	65584	Gasket - Breaker box	1	All				
16	100251	Nut - Hex 8-32	1	All				
17	100057	Lockwasher - #8	1	All				
18	50381A	Insulator - Breaker terminal	1	All				
19	103672	Screw - Hex hd 8-32 x 1/2 (SEMS)	1	All				
20	50076A	Breaker Assy	1	All				
21	50664	Felt - Breaker box	1	All				
22	103672	Screw - Hex hd 8-32 x 1/2 (SEMS)	1	All				
23	50074	Condenser	1	All				
24	51240	Gasket - Crankcase	1	A,B,C,D,E,F				
	104523	"O" Ring	1	G				
25	100824	Bearing - Ball	1	All				
26	57126A	Crankcase Cover Assy	1	All				
27	50663	. Seal - Oil	1	All				
28	54184	. Wiper - Felt	1	All				
29	101326	. Nut - Hex 10-24	2	All				



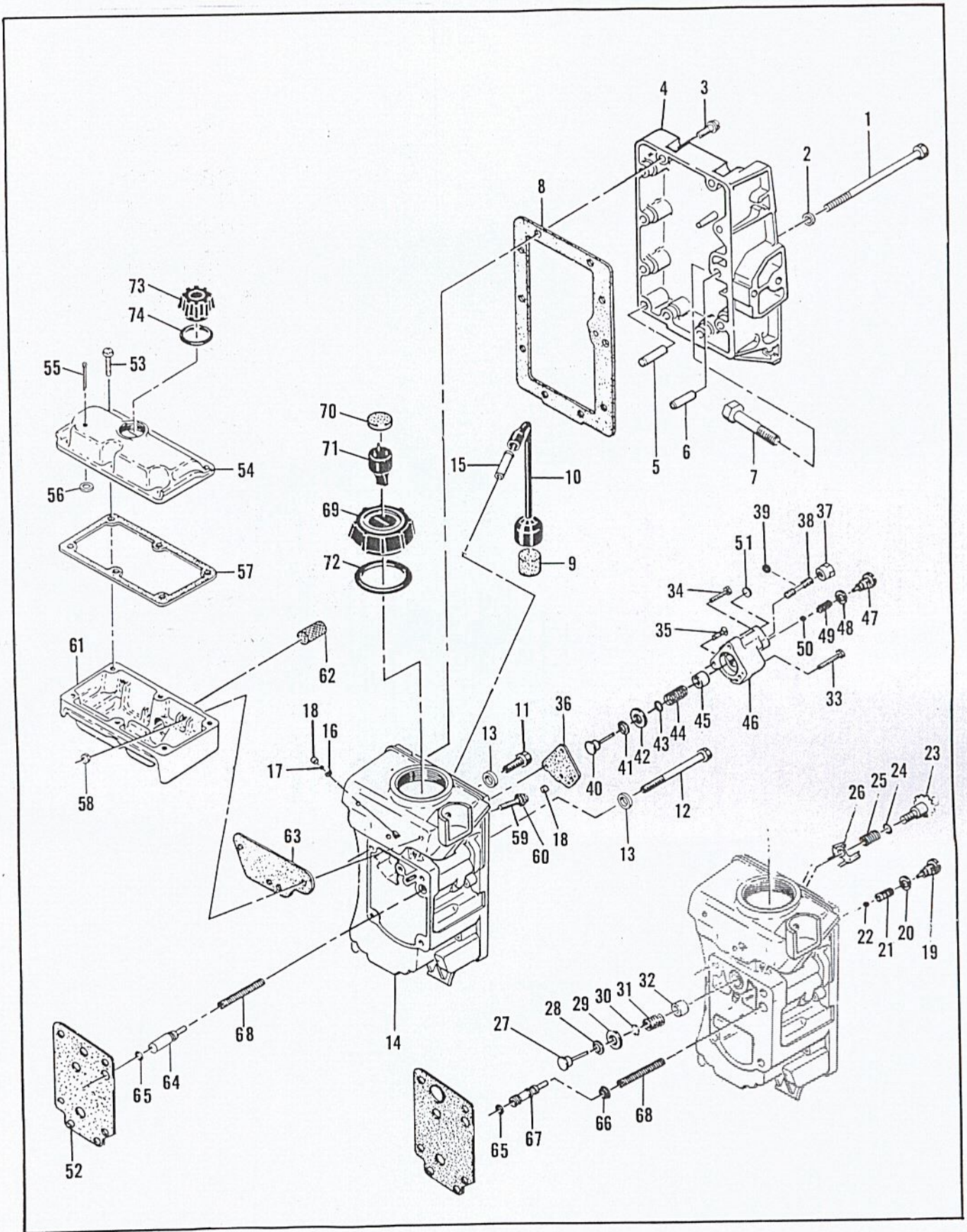


Figure 3. Oiler Tank and Fuel Tank Assemblies



FIGURE 3. OILER AND FUEL TANK ASSEMBLIES

Item No.	Part Number	Description	Units Per Assy	Usable on Code				
Model 650 and 660 Usable on Code								
	<b>Model</b>	650	650	650	660	660	660	660
	<b>Letter</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>
	<b>Serial Numbers</b>	Up to 10051 Without Prefix	10051 & Up Without Prefix	Prefixed 1-	Prefixed 10-	Prefixed 11-	Prefixed 12-	Prefixed 13-
1	101975	Screw - Fil hd 10-24 x 2-1/2	1	All				
2	100003	Washer - #10	1	All				
3	102763	Screw - Hex hd 10-24 x 3/4	9	All				
4	68165	Cover Assy - Fuel tank	1	All				
5	101209	. Dowel - 1/4 x 1-1/4	1	All				
6	61871	. Dowel - Hollow 1/4 x 1-3/8	1	All				
7	61437	. Bolt - Bar mounting	2	All				
8	61586	Gasket - Fuel tank cover	1	All				
9	50124A	Filter - Fuel	1	All				
10	50082	Hose - Flex	1	All				
11	102128	Screw - Hex hd 1/4-20 x 1-1/4	3	All				
12	102150	Screw - Hex hd 1/4-20 x 3	1	All				
13	110300	Washer - Sealing 1/4	4	All				
14	62443A	Fuel Tank Assy	1	All				
15	28042	. Tube - Fuel hose	1	All				
16	110327	. Ring - Retaining	1	B,C,D,E,F,G				
17	100071	. Ball	1	B,C,D,E,F,G				
18	62216	. Seat - Ball	2	B,C,D,E,F,G				
19	60397A	Screw - Special	1	A				
20	60398B	Washer - Special	1	A				
21	62178	Spring - Ball check	1	A				
22	102809	Ball - Steel 3/32	1	A				
23	60604A	Screw Assy - Adjusting	1	A				
24	104001	"O" Ring	1	A				
25	60220	Spring - Adjusting screw	1	A				
26	60605	Detent - Adjusting screw	1	A				
27	60260A	Piston Assy - Pulse pump	1	A				
28	60937	Washer - Teflon	1	A				
29	60263	Ring - Pump piston	1	A				
30	104159	"O" Ring	1	A				
31	60259	Spring - Piston	1	A				
32	67918	Sleeve - Adjusting	1	A				
33	110257	Screw - Hex hd 10-24 x 1-3/4 (SEMS)	1	B,C,D,E,F,G				
34	110127	Screw - Hex hd 10-24 x 7/8 (SEMS)	1	B,C,D,E,F,G				
35	110245	Screw - Flat hd 10-24 x 3/4	1	B,C,D,E,F,G				
36	65673	Gasket - Pulse pump	1	B,C,D,E,F,G				
	83135	Pulse Pump Assy	1	B,C,D,E,F,G				
37	60976	. Locknut - Adjusting screw	1	B,C,D,E,F,G				
38	67929	. Screw - Adjusting	1	B,C,D,E,F,G				
39	104001	. "O" Ring	1	B,C,D,E,F,G				
40	60260A	. Piston Assy - Pulse pump	1	B,C,D,E,F,G				
41	60937	. Washer - Teflon	1	B,C,D,E,F,G				
42	60263	. Ring - Pump piston	1	B,C,D,E,F,G				
43	104001	. "O" Ring	1	B,C,D,E,F,G				
44	60259	. Spring - Piston	1	B,C,D,E,F,G				
45	67918	. Sleeve - Adjusting	1	B,C,D,E,F,G				
46	83132	. Body Assy - Pulse pump	1	B,C,D,E,F,G				
47	60397A	. . Screw - Special	1	B,C,D,E,F,G				
48	60398B	. . Washer - Special	1	B,C,D,E,F,G				
49	60396B	. . Spring - Ball check	1	B,C,D,E,F,G				
50	102809	. . Ball - Steel 0.093 in.	1	B,C,D,E,F,G				
51	110157	. . Plug - Expansion 9/16	1	B,C,D,E,F,G				
52	65669	Gasket - Fuel tank	1	All				
53	104395	Screw - Pan hd 10-24 x 5/8	6	All				

(This list continued on page 10)



## FIGURE 3. OILER TANK AND FUEL TANK ASSEMBLIES (CONTINUED)

Item No.	Part Number	Description	Units Per Assy	Usable on Code
54	57114	Cover - Oil tank .....	1	All
55	100010	Pin - Cotter .....	1	All
56	69352	Washer - Felt .....	1	All
57	57152	Gasket - Oil tank cover .....	1	All
58	101326	Nut - Hex 10-24 .....	3	All
59	55494	Screw Assy - Sealing .....	3	All
60	55492	. Washer - Sealing .....	3	All
61	66618	Tank - Oiler .....	1	All
62	57279	Screen - Oiler .....	1	All
63	57147	Gasket - Oiler tank .....	1	All
64	83405	Piston - Oiler .....	1	F,G
	68706	Kit - Oiler piston .....	1	A,B,C,D,E
65	101056	. "O" Ring .....	1	All
66	67116	. "V" Packing .....	1	A,B,C,D,E
67	68704	. Piston - Oiler .....	1	A,B,C,D,E
68	68705	. Spring - Piston .....	1	All
69	55934B	Fuel Cap Assy .....	1	All
70	55063	. Filter - Fuel cap .....	1	All
71	53766A	. Valve - Fuel cap .....	1	All
72	101348	"O" Ring .....	1	All
73	57129A	Cap - Oil filler .....	1	All
74	101148	"O" Ring .....	1	All



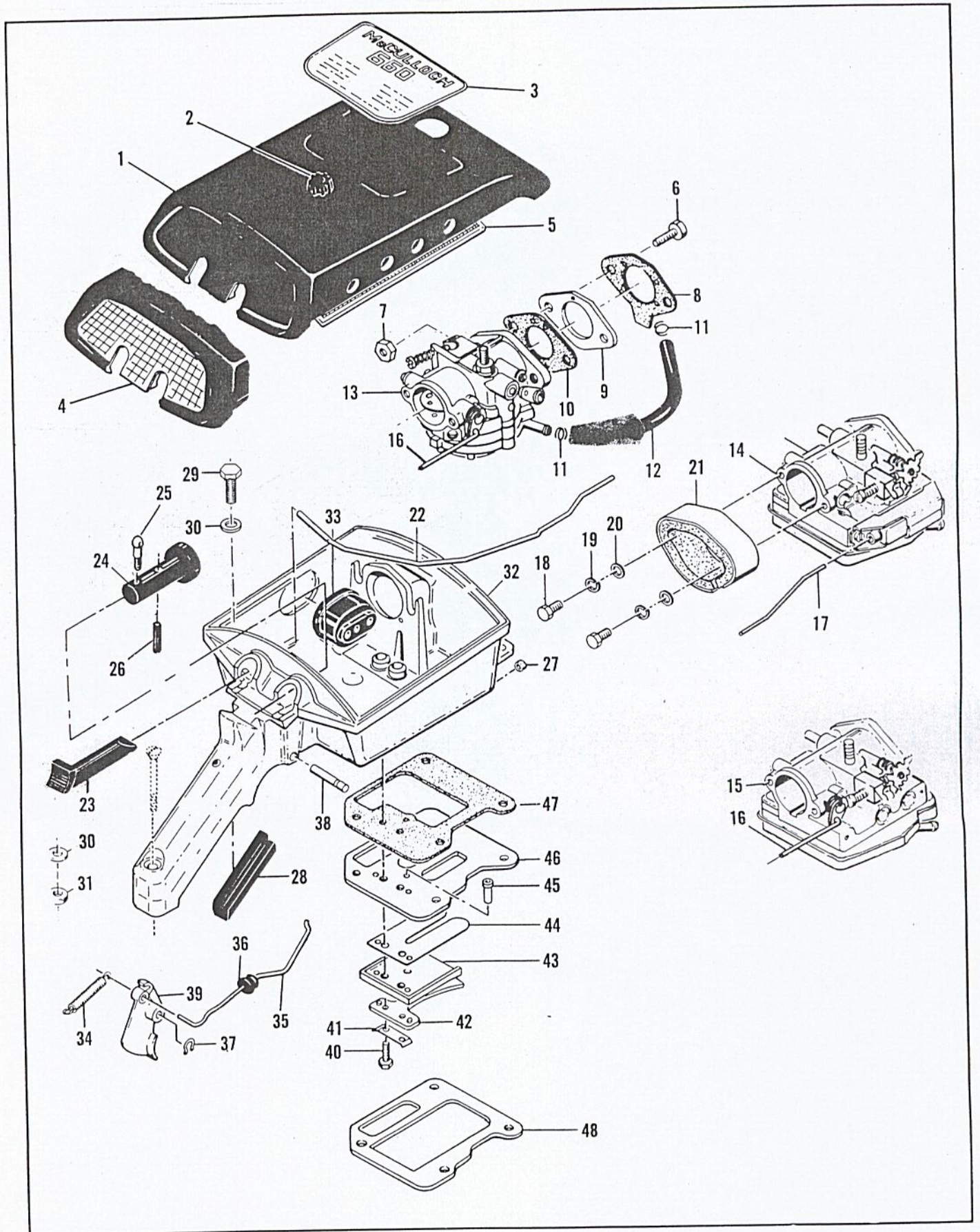


Figure 4. Cover and Airbox Assemblies



FIGURE 4. COVER AND AIRBOX ASSEMBLIES

Item No.	Part Number	Description	Units Per Assy	Usable on Code				
Model 650 and 660 Usable on Code								
	<b>Model</b>	650	650	650	660	660	660	660
	<b>Letter</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>
	<b>Serial Numbers</b>	Up to 10051 Without Prefix	10051 & Up Without Prefix	Prefixed 1-	Prefixed 10-	Prefixed 11-	Prefixed 12-	Prefixed 13-
1	67288	Cover Assy - Air cleaner .....						
								1 All
2	60242	. Knob - Cover .....						1 All
3	61560	Nameplate .....						1 A,B,C
	67275	Nameplate .....						1 D,E,F
	83562	Nameplate .....						1 G
4	57218	Trim - Cover .....						1 A,B,C
5	55498	Screen - Air cleaner .....						1 A,B,G
	67931	Screen - Air cleaner .....						1 C,D,E,F
6	53539	Screw - Special .....						2 A,E,F
	60208	Screw - Special .....						2 B,C,D,G
7	103242	Nut - Hex 1/4-20 .....						2 All
8	65583	Gasket - Adapter .....						1 All
9	50686A	Adaptor - Carburetor .....						1 A,E,F
	53189	Adaptor - Carburetor .....						1 B,C,D,G
10	65630	Gasket - Carburetor .....						1 A,E,F
	65583	Gasket - Carburetor .....						1 B,C,D,G
11	50742	Clamp - Hose .....						2 All
12	67094	Hose - Fuel .....						1 All
13		Carburetor Assy (See Figure 5) .....						A,E,F
14		Carburetor Assy (See Figure 6) .....						B,C,D
15		Carburetor Assy (See Figure 7) .....						G
16	57134	Rod - Choke .....						1 A,E,F,G
17	53589	Rod - Primer .....						1 B,C,D
18	103705	Screw - Hex hd 10-32 x 3/8 .....						2 B,C,D
19	103174	Lockwasher - #10 .....						2 B,C,D
20	102189	Washer - #10 .....						2 B,C,D
21	58922A	Collector Assy - Fuel .....						1 B,C,D
22	62226	Rod - Oiler .....						1 A,B,C,D,E
	83383	Rod - Oiler .....						1 F,G
23	50591B	Button - Oiler .....						1 A,B,C,D,E
	83397	Button - Oiler .....						1 F,G
24	50777B	Button - Choke .....						1 A,E,F,G
	50591B	Button - Primer .....						1 B,C,D
25	61822	Screw - Special .....						1 A,E,F,G
26	101556	Pin - Roll .....						1 A,E,F,G
27	57736	Seal - Oiler rod .....						1 All
28	50218A	Insert - Handle .....						1 A,B,C,D,E
	57834	Insert - Handle .....						1 F,G
29	102761	Screw - Hex hd 10-24 x 7/8 .....						1 B,C,D,E,F,G
30	105048	Washer - #10 .....						2 B,C,D,E,F,G
31	101326	Nut - Hex 10-24 .....						1 B,C,D,E,F,G
32	57449E	Airbox Assy .....						1 A
	83421	Airbox Assy .....						1 B,C,D,E,F,G
33	53277	. Grommet - Carburetor controls .....						1 B,C,D,G
	83404	. Grommet - Carburetor controls .....						1 A,E,F
34	36499	. Spring - Throttle return .....						1 All
35	50684	. Rod - Throttle .....						1 A,E,F
	61106	. Rod - Throttle .....						1 B,C,D,G
36	68258	. Grommet - Throttle rod .....						1 All
37	104501	. Retainer - Trigger pin .....						1 All
38	50507	. Pin - Trigger .....						1 All
39	50091B	. Trigger .....						1 All
40	103740	. Screw - Hex hd 8-32 x 5/8 .....						2 All
41	51480	. Lockplate .....						1 All

(This list continued on page 14)



FIGURE 4. COVER AND AIRBOX ASSEMBLIES (CONTINUED)

Item No.	Part Number	Description	Units Per Assy	Usable on Code
42	57658A	. Clamp, Reed .....	1	All
43	57654A	. Deflector - Fuel .....	1	A
	66274	. Deflector - Fuel .....	1	B,C,D,E,F,G
44	58399	. Valve - Reed .....	1	A
	48593	. Valve - Reed .....	1	B,C,D,E,F,G
45	63067	. Tube - Reed plate .....	1	B,C,D,E,F,G
46	53685C	. Plate - Reed .....	1	All
47	65653	. Gasket - Airbox .....	1	All
48	57657	. Insulator - Reed plate .....	1	A
	62834	. Insulator - Reed plate .....	1	B,C,D,E,F,G

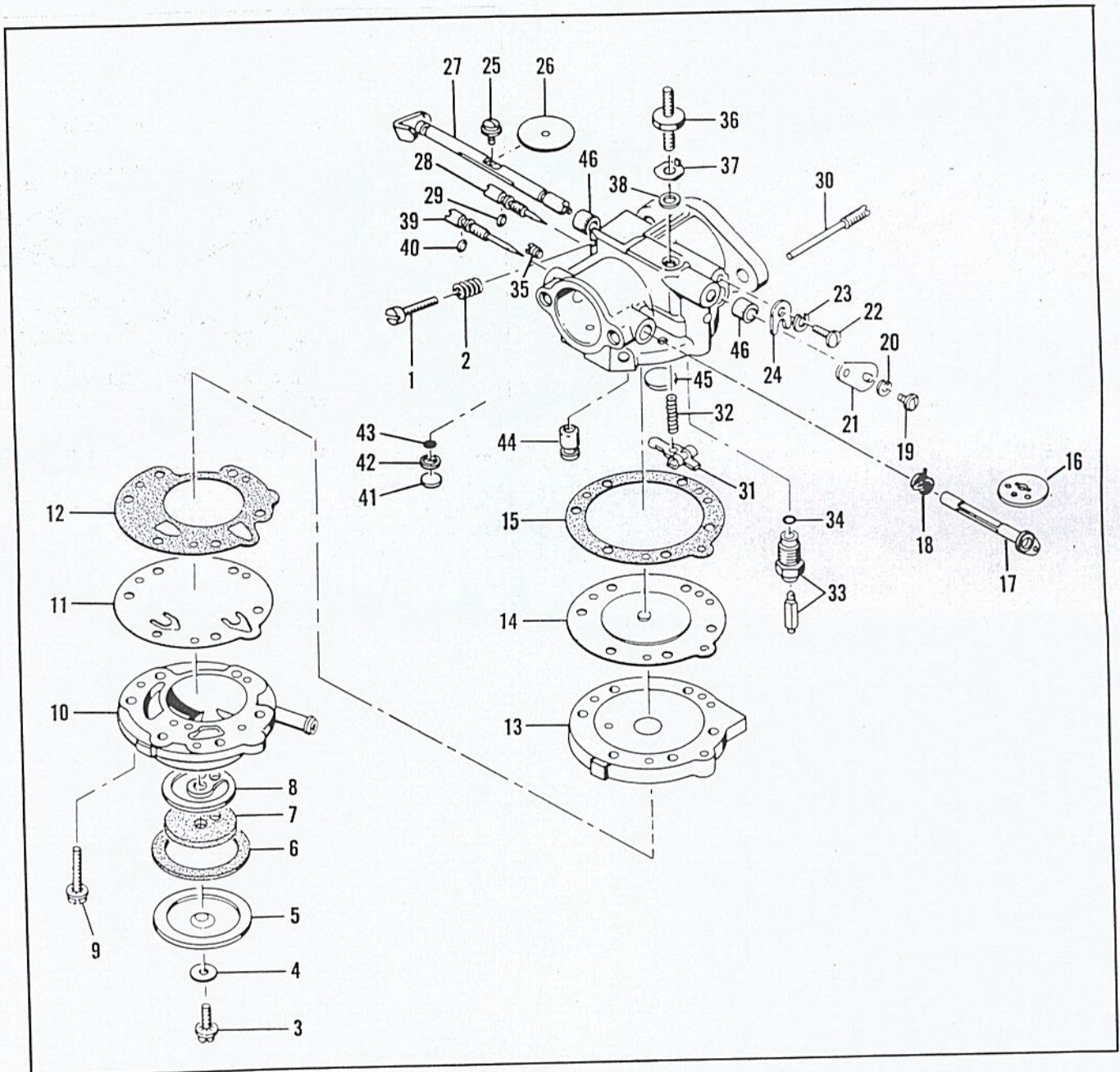


Figure 5. Carburetor Assembly



**FIGURE 5. CARBURETOR ASSEMBLY**

Item No.	Part Number	Description	Units Per Assy	Usable on Code				
Model 650 and 660 Usable on Code								
	<b>Model</b>	650	650	650	660	660	660	660
	<b>Letter</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>
	<b>Serial Numbers</b>	Upto 10051 Without Prefix	10051 & Up Without Prefix	Prefixed 1-	Prefixed 10-	Prefixed 11-	Prefixed 12-	Prefixed 13-
1	66346	Carburetor Assy	1	A,E,F				
1	*50799	. Screw - Idle speed	1	A,E,F				
2	*51705	. Spring - Idle speed screw	1	A,E,F				
3	*50797	. Screw - Fuel filter cover	1	A,E,F				
4	50798	. Gasket - Fuel filter cover screw	1	A,E,F				
5	50796	. Cover - Fuel filter	1	A,E,F				
6	51704	. Gasket - Fuel filter cover	1	A,E,F				
7	*53717	. Filter - Fuel	1	A,E,F				
8	53565	. Gasket - Filter	1	A,E,F				
9	51597	. Screw - Fuel pump body	6	A,E,F				
10	50670	. Body - Fuel pump	1	A,E,F				
11	51595	. Diaphragm - Fuel pump	1	A,E,F				
12	65592	. Gasket - Fuel pump	1	A,E,F				
13	51592	. Cover - Diaphragm	1	A,E,F				
14	*66167	. Diaphragm Assy	1	A,E,F				
15	65591	. Gasket - Diaphragm	1	A,E,F				
16	53813	. Shutter - Choke	1	A,E,F				
17	53814	. Shaft Assy - Choke	1	A,E,F				
18	*51586	. Spring - Choke return	1	A,E,F				
19	*51719	. Screw - Throttle lever	1	A,E,F				
20	*100261	. Lockwasher	1	A,E,F				
21	51718	. Lever - Throttle shaft	1	A,E,F				
22	*51717	. Screw - Throttle shaft clip	1	A,E,F				
23	*100252	. Lockwasher	1	A,E,F				
24	51716	. Clip - Throttle shaft	1	A,E,F				
25	*51721	. Screw - Throttle shutter	1	A,E,F				
26	51720	. Shutter - Throttle	1	A,E,F				
27	50803A	. Shaft Assy - Throttle	1	A,E,F				
28	*51702	. Needle Assy - Idle adjustment	1	A,E,F				
29	104001	. "O" Ring	1	A,E,F				
30	*51710	. Screw - Inlet control lever pin	1	A,E,F				
31	*51709	. Lever - Inlet control	1	A,E,F				
32	*66404	. Spring - Inlet lever	1	A,E,F				
33	*51707A	. Seat and Needle Assy	1	A,E,F				
34	51708	. Gasket - Seat	1	A,E,F				
35	51589	. Drain Screw	1	A,E,F				
36	50785	. Stud - Air cleaner cover	1	A,E,F				
37	63026	. Tab - Locking	1	A,E,F				
38	63945	. Gasket - Stud	1	A,E,F				
39	66230	. Body & Needle Assy - Carburetor	1	A,E,F				
40	*66405	. Needle Assy - Main adjustment	1	A,E,F				
41	104001	. "O" Ring	1	A,E,F				
42	57653	. Plug - Channel cup	1	A				
43	57652	. Ring - Retainer	1	A				
44	57651	. Screen - Fuel	1	A				
45	65611	. Check Valve	1	E,F				
46	*51583	. Plug - Welch	1	A,E,F				
46	51715	. Bushing - Throttle shaft	2	A,E,F				
	*50806	Gasket and Packing Set	1	A,E,F				
	66422	Repair Parts Kit	1	A,E,F				

\*Indicates part in Repair Parts Kit #66422.



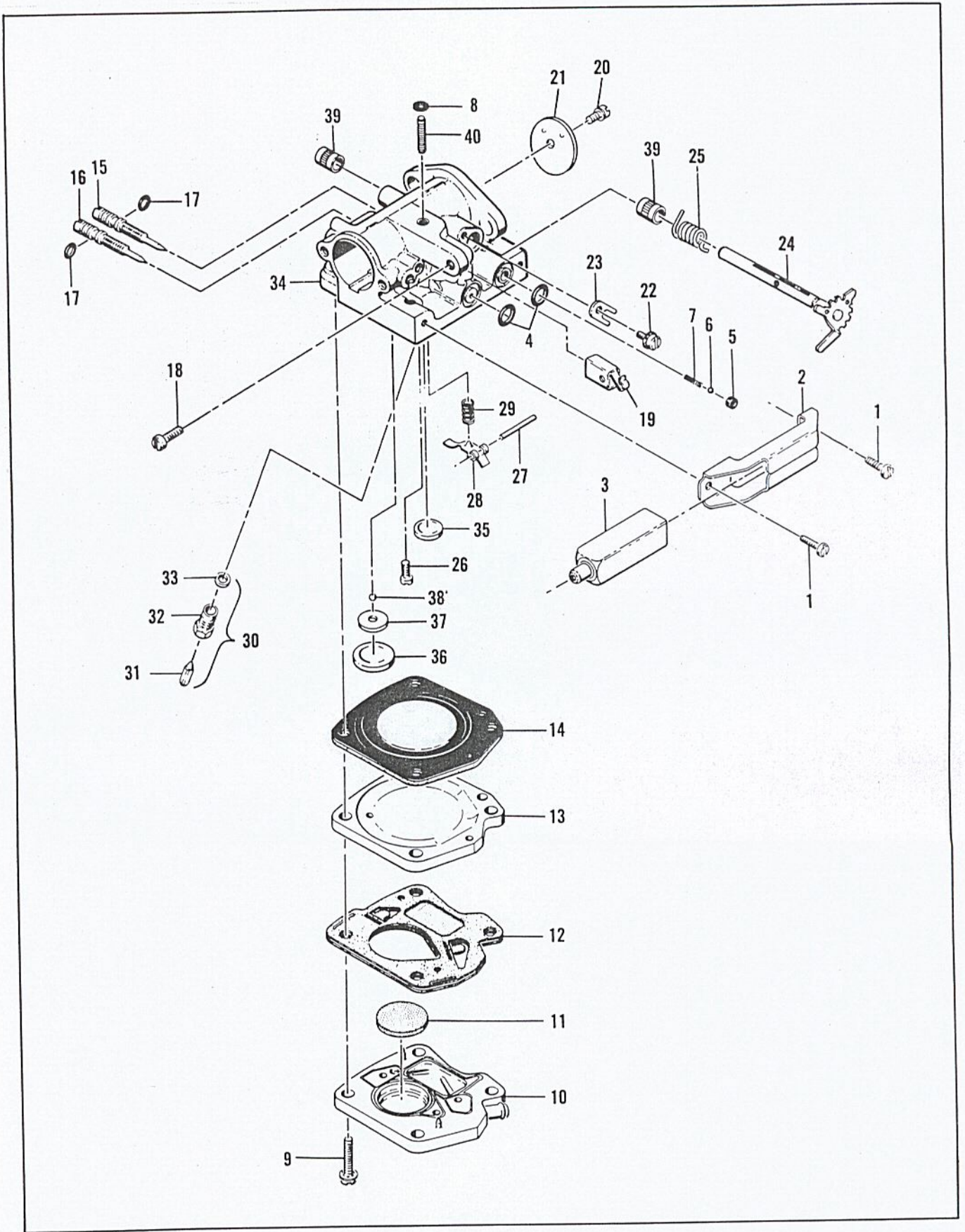


Figure 6. Carburetor Assembly



FIGURE 6. CARBURETOR ASSEMBLY

Item No.	Part Number	Description	Units Per Assy	Usable on Code				
Model 650 and 660 Usable on Code								
	<b>Model</b>	650	650	650	660	660	660	660
	<b>Letter</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>
	<b>Serial Numbers</b>	Up to 10051 Without Prefix	10051 & Up Without Prefix	Prefixed 1-	Prefixed 10-	Prefixed 11-	Prefixed 12-	Prefixed 13-
1	68752	Carburetor Assy .....					1	B,C,D
1	110054	. Screw - Pan hd 6-32 x 3/8 (SEMS) .....					2	B,C,D
2	53440	. Bracket - Primer mounting .....					1	B,C,D
3	68702	. Primer Assy .....					1	B,C,D
4	101056	. "O" Ring .....					2	B,C,D
5	59480	. Seat - Primer valve .....					1	B,C,D
6	100302	. Ball - Steel 1/8 in. ....					1	B,C,D
7	28754	. Spring - Primer .....					1	B,C,D
8	100283	. Grommet .....					1	B,C,D
9	104520	. Screw - Pan hd 10-24 x 7/8 (SEMS) .....					4	B,C,D
10	69169	. Body Assy - Fuel pump .....					1	B,C,D
11	48911	. . Filter - Fuel .....					1	B,C,D
12	57274B	. Diaphragm Assy - Fuel pump .....					1	B,C,D
13	48901	. Plate - Diaphragm .....					1	B,C,D
14	55067C	. Diaphragm Assy - Carburetor .....					1	B,C,D
15	53948	. Needle - Idle adjustment .....					1	B,C,D
16	53311	. Needle - Main adjustment .....					1	B,C,D
17	104001	. "O" Ring .....					2	B,C,D
18	62910	. Screw - Fil hd long locking .....					1	B,C,D
19	61108	. Guide - Throttle rod .....					1	B,C,D
20	104814	. Screw - Pan hd 4-40 x 1/4 (SEMS) .....					1	B,C,D
21	61360	. Plate - Throttle .....					1	B,C,D
22	110055	. Screw - Fil hd 8-32 x 3/8 (SEMS) .....					1	B,C,D
23	55082	. Clip - Throttle shaft .....					1	B,C,D
24	61854A	. Shaft Assy - Throttle .....					1	B,C,D
25	61858	. Spring - Idle governor .....					1	B,C,D
26	104164	. Screw - Pan hd 4-40 x 1/4 s/t. ....					1	B,C,D
27	104305	. Pin - Inlet lever .....					1	B,C,D
28	55688	. Lever - Inlet control .....					1	B,C,D
29	57172	. Spring - Inlet lever .....					1	B,C,D
30	60163A	. Valve Set - Needle and body .....					1	B,C,D
31	63038	. . Needle - Valve .....					1	B,C,D
32	58969	. . Body - Needle valve .....					1	B,C,D
33	55689	. . Washer - Needle valve .....					1	B,C,D
34	66420	. Body Assy - Carburetor .....					1	B,C,D
35	110179	. . Plug - Expansion 1/2 in. ....					1	B,C,D
36	104407	. . Plug - Expansion 1 in. ....					1	B,C,D
	61155	. . Set - Ball and seat .....					1	B,C,D
37	61152	. . . Seat - Ball .....					1	B,C,D
38	61151	. . . Ball - Nylon 3/32 in. ....					1	B,C,D
39	55062A	. . Bushing - Body .....					2	B,C,D
40	48611	. . Stud - Air cleaner cover .....					1	B,C,D



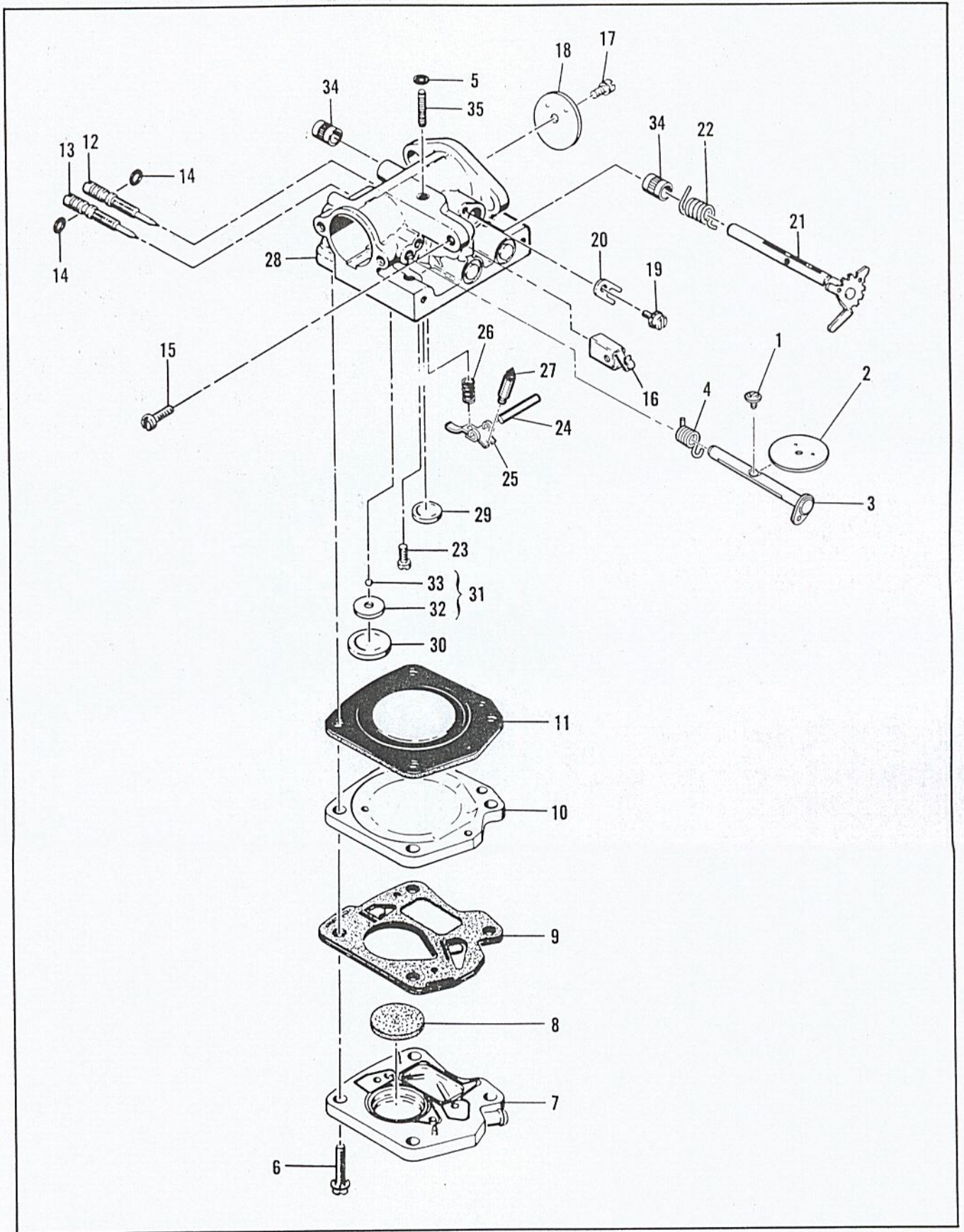


Figure 7. Carburetor Assembly



FIGURE 7. CARBURETOR ASSEMBLY

Item No.	Part Number	Description	Units Per Assy	Usable on Code				
Model 650 and 660 Usable on Code								
	<b>Model</b>	650	650	650	660	660	660	660
	<b>Letter</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>
	<b>Serial Numbers</b>	Up to 10051 Without Prefix	10051 & Up Without Prefix	Prefixed 1-	Prefixed 10-	Prefixed 11-	Prefixed 12-	Prefixed 13-
1	84050	Carburetor Assy						G
1	104814	. Screw - Pan hd 4-40 x 1/4 (SEMS)					1	G
2	55085	. Plate - Choke					1	G
3	84073	. Shaft Assy - Choke					1	G
4	55089	. Spring - Choke return					1	G
5	100283	. Grommet					1	G
6	104520	. Screw - Pan hd 10-24 x 7/8 (SEMS)					4	G
7	69169	. Body - Fuel pump					1	G
8	48911	. Filter - Fuel					1	G
9	57274B	. Diaphragm Assy - Fuel pump					1	G
10	48901	. Plate - Diaphragm					1	G
11	55067C	. Diaphragm - Carburetor					1	G
12	53948	. Needle - Idle adjustment					1	G
13	53311	. Needle - Main adjustment					1	G
14	104001	. "O" Ring					2	G
15	62910	. Screw - Fil hd long locking					1	G
16	61108	. Guide - Throttle rod					1	G
17	104814	. Screw - Pan hd 4-40 x 1/4 (SEMS)					1	G
18	61360	. Plate - Throttle					1	G
19	110055	. Screw - Fil hd 8-32 x 3/8 (SEMS)					1	G
20	55082	. Clip - Throttle shaft					1	G
21	61854A	. Shaft Assy - Throttle					1	G
22	61858	. Spring - Idle governor					1	G
23	104164	. Screw - Pan hd 4-40 x 1/4 s/t					1	G
24	104305	. Pin - Inlet lever					1	G
25	84317	. Lever - Inlet control					1	G
26	57172	. Spring - Inlet lever					1	G
27	83753	. Needle - Inlet valve					1	G
28	84053	. Body Assy - Carburetor					1	G
29	110179	. Plug - Expansion 1/2 in.					1	G
30	104407	. Plug - Expansion 1 in.					1	G
31	61155	. Set - Ball & seat					1	G
32	61152	. Seat - Ball					1	G
33	61151	. Ball - Nylon 3/32 in.					1	G
34	55062A	. Bushing - Body					2	G
35	48611	. Stud - Air cleaner cover					1	G



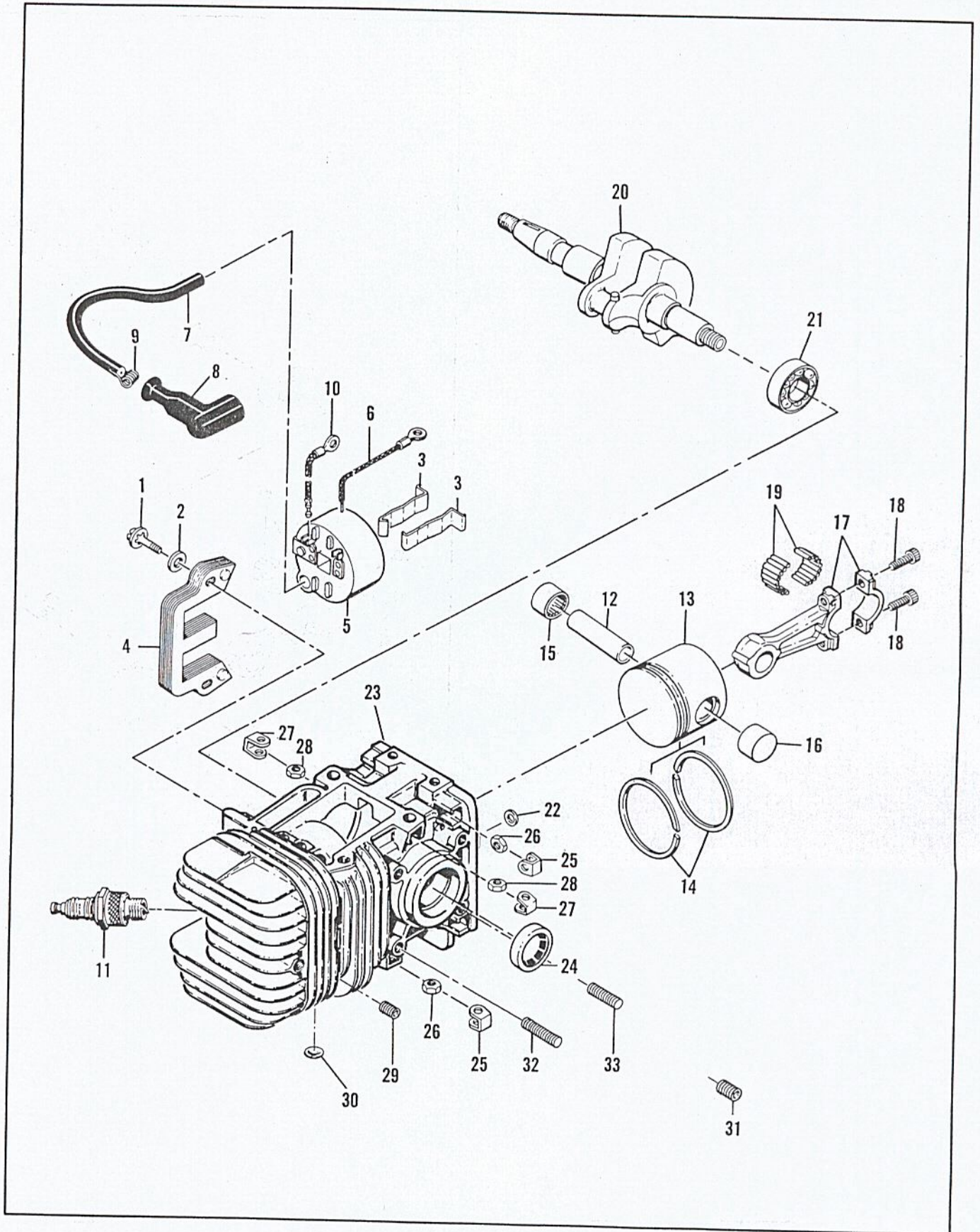


Figure 8. Powerhead Assembly



FIGURE 8. POWERHEAD ASSEMBLY

Item No.	Part Number	Description	Units Per Assy	Usable on Code				
Model 650 and 660 Usable on Code								
	<b>Model</b>	650	650	650	660	660	660	660
	<b>Letter</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>
	<b>Serial Numbers</b>	Up to 10051 Without Prefix	10051 & Up Without Prefix	Prefixed 1-	Prefixed 10-	Prefixed 11-	Prefixed 12-	Prefixed 13-
1	104815	Screw - Hex hd 10-24 x 7/8 (SEMS).....	2	All				
2	102189	Washer - #10 .....	2	A,B				
	100352	Washer - #10 .....	2	C,D,E,F,G				
3	51253	Retainer - Coil .....	2	All				
4	51251	Lamination Assy .....	1	All				
5	57643A	Kit - Coil & Terminal Assy .....	1	All				
6	101883	. Wire Assy - Ground .....	1	All				
7	50120	. Wire Assy - Spark plug .....	1	All				
8	55060	. Boot - Spark plug .....	1	All				
9	55061	. Connector - Spark plug .....	1	All				
10	57225	. Wire Assy - Primary .....	1	All				
11	83564	Spark Plug .....	1	All				
12	62831	Pin - Piston .....	1	A,B,C,D,E,F				
	69408	Pin - Piston .....	1	G				
13	53941A	Piston Assy .....	1	All				
14	55123	. Ring Set - Piston .....	1	All				
15	104519	. Bearing - Needle .....	1	All				
16	62868	. Bearing - Needle (closed end) .....	1	All				
17	47903	Connecting Rod Assy .....	1	All				
18	60210A	. Screw - Skt head special .....	2	All				
19	69891	. Roller - Needle .....	24	All				
20	61860	Crankshaft .....	1	All				
21	110311	Bearing - Ball .....	1	A				
	100824	Bearing - Ball .....	1	B,C,D,E,F,G				
22	57736	Seal - Pushrod .....	1	All				
23	53563A	Crankcase Assy .....	1	A				
	68260	Crankcase Assy .....	1	B,C,D,E,F,G				
24	104432	. Seal - Oil .....	1	All				
25	18556A	. Retainer - Nut .....	6	All				
26	101143	. Nut - Hex 1/4-20 .....	6	A				
	105394	. Nut - Hex 1/4-20 .....	6	B,C,D,E,F,G				
27	28053	. Retainer - Nut .....	2	All				
28	101326	. Nut - Hex 10-24 .....	2	All				
29	110034	. Insert - Taplok .....	3	A,B,C,D,E,F				
	83374	. Insert - Taplok .....	3	G				
30	110179	. Plug - Expansion .....	3	All				
31	104914	. Insert - 1/4-20 s/t .....	3	A				
32	65421	. Stud - 1/4-20 x 1-3/4 .....	2	B,C,D,E,F,G				
33	65422	. Stud - 1/4-20 x 1-1/2 .....	1	B,C,D,E,F,G				



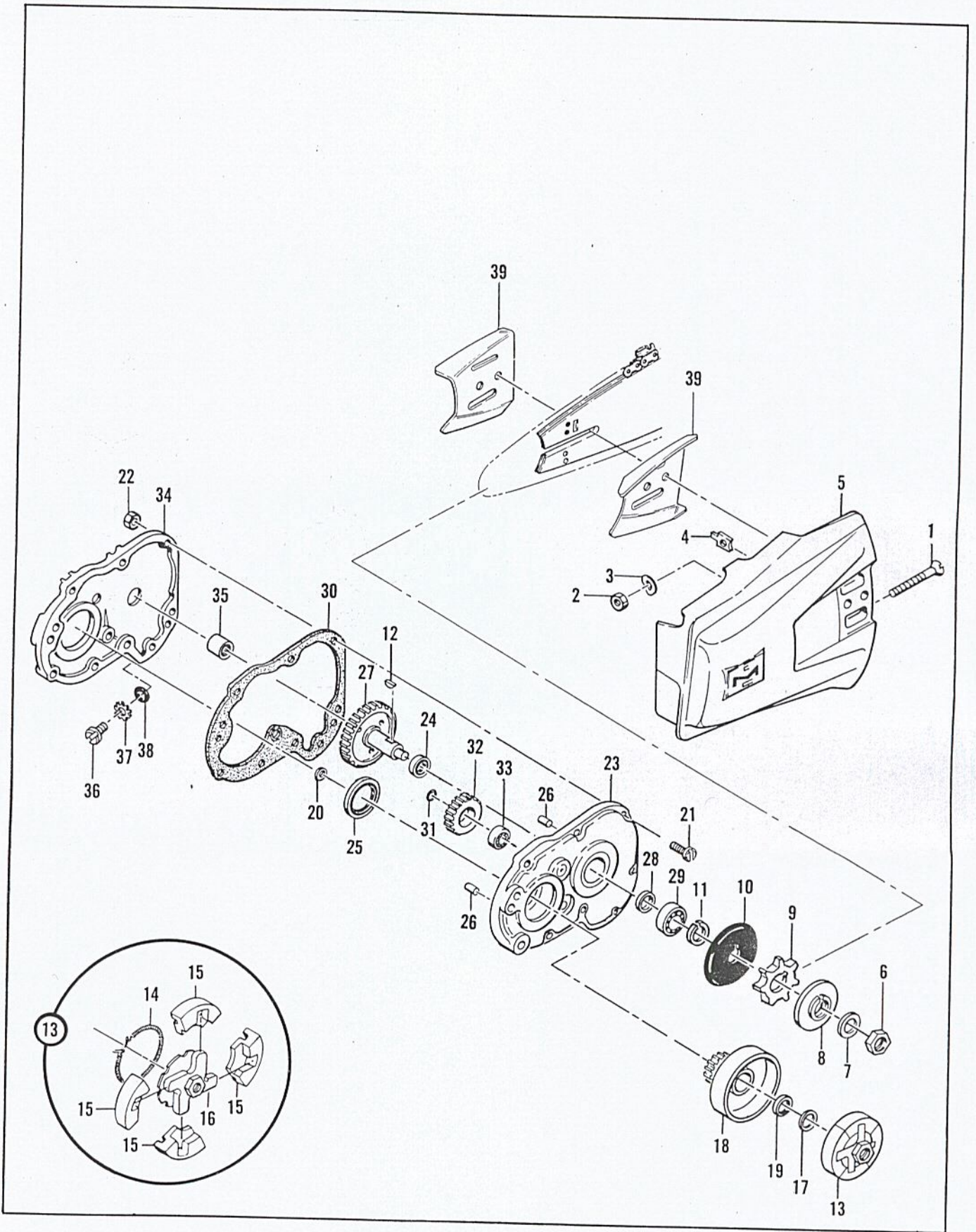


Figure 9. Transmission, Clutch Guard Assembly



FIGURE 9. TRANSMISSION, CLUTCH GUARD ASSEMBLIES

Item No.	Part Number	Description	Units Per Assy	Usable on Code					
Model 650 and 660 Usable on Code									
	<b>Model</b>	650	650	650	660	660	660	660	
	<b>Letter</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>	
	<b>Serial Numbers</b>	Upto 10051 Without Prefix	10051 & Up Without Prefix	Prefixed 1-	Prefixed 10-	Prefixed 11-	Prefixed 12-	Prefixed 13-	
1	61587	Guard Assy - Clutch						1	All
1	61908A	. Screw - Fl hd special						1	All
2	100640	. Nut - Hex 1/4-28						1	All
3	102813	. Washer - Wave						1	All
4	61905	. Nut - Bar adjusting						1	All
5	68994	. Guard - Clutch						1	All
6	101179	Nut - Hex 7/16-20						1	All
7	100593	Washer - 7/16						1	All
8	36019A	Shroud - Sprocket						1	A
	36862	Shroud - Sprocket						1	B,C,D,E,F,G
9	36644A	Sprocket - 7 tooth, 1/2 in. pitch						1	All
10	62059	Washer - Sprocket						1	All
11	61354	Spacer - Sprocket						1	All
12	100256	Key - Woodruff						1	All
13	50060B	Clutch Assy						1	All
14	51468A	. Spring - Clutch						1	All
15	51464A	. Shoe - Clutch						4	All
16	50144B	. Rotor Assy - Clutch						1	All
17	63834	Washer - Special						1	All
18	61497	Drum & Gear Assy (2:1)						1	All
	63187	Drum & Gear Assy (3:1)						1	All
19	62061	. Seal - Oil						1	All
20	61498	Washer - Thrust (2:1)						1	All
	63189	Washer - Thrust (3:1)						1	All
	67009	Transmission Assy (2:1)						1	All
	67011	Transmission Assy (3:1)						1	All
21	101991	. Screw - Fil hd 10-24 x 1/2						7	A
	102500	. Screw - Pan hd 10-24 x 1/2						7	B,C,D,E,F,G
22	101191	. Nut - Hex 10-24						7	All
23	63230	. Kit - Cover & Gearcase Assy (2:1)						1	A
	63195	. Cover Assy - Transmission (2:1)						1	B
	63179	. Cover Assy - Transmission (3:1)						1	B
	66324	. Cover Assy - Transmission (2:1)						1	C,D,E,F,G
	66334	. Cover Assy - Transmission (3:1)						1	C,D,E,F,G
24	62060	. Seal - Oil						1	All
25	62062	. Seal - Oil						1	All
26	101770	. Pin - Dowel						2	All
27	61451A	. Gear - Sprocket (2:1)						1	All
	63182	. Gear - Sprocket (3:1)						1	All
28	61501	. Sleeve - Bearing						1	A
29	110302	. Bearing - Ball						1	All
30	61572	. Gasket - Gearcase cover						1	A
	63186	. Gasket - Gearcase cover						1	B,C,D,E,F,G
31	105606	. "O" Ring						1	A,B
	105614	. "O" Ring						1	C,D,E,F,G
32	61503	. Gear Assy - Idler (2:1)						1	A,B
	63184	. Gear Assy - Idler (3:1)						1	A,B
	66327	. Gear Assy - Idler (2:1)						1	C,D,E,F,G
	66337	. Gear Assy - Idler (3:1)						1	C,D,E,F,G
33	101595	. Bearing - Idler gear						1	A,B
	102339	. Bearing - Idler gear						1	C,D,E,F,G
34	63230	. Kit - Cover & Gearcase Assy (2:1)						1	A
	63192	. Gearcase Assy - Transmission (2:1)						1	B
	63176	. Gearcase Assy - Transmission (3:1)						1	B

(This list continued on page 24)



650-660 Series

FIGURE 9. TRANSMISSION, CLUTCH GUARD ASSEMBLIES (CONTINUED)

Item No.	Part Number	Description	Units Per Assy	Usable on Code
	66321	. Gearcase Assy - Transmission (2:1) .....	1	C,D,E,F,G
	66331	. Gearcase Assy - Transmission (3:1) .....	1	C,D,E,F,G
35	104378	. . Bearing - Needle .....	1	All
36	100432	. . Plug - Pipe 1/4-18 .....	1	A
	4623111	. . Plug - Grease .....	1	B,C,D,E,F,G
37	110409	. . Lockwasher .....	1	B,C,D,E,F,G
38	105617	. . "O" Ring .....	1	B,C,D,E,F,G
39	61994	Set - Bar plate .....	1	A,B
	61995	. Plate - Bar (L.H.) .....	1	A,B
	61996	. Plate - Bar (R.H.) .....	1	A,B
	64935	Plate - Bar .....	2	C,D,E,F,G



## ACCESSORIES

Part Number	Description
53942A	Piston Assy 0.010 in. oversize .....
55124	. Ring Set 0.010 in. oversize .....
104519	. Bearing - Needle .....
62868	. Bearing - Needle (closed end) .....
53943A	Piston Assy 0.020 in. oversize .....
55125	. Ring Set 0.020 in. oversize .....
104519	. Bearing - Needle .....
62868	. Bearing - Needle (closed end) .....
53944A	Piston Assy 0.030 in. oversize .....
55126	. Ring Set 0.030 in. oversize .....
104519	. Bearing - Needle .....
62868	. Bearing - Needle (closed end) .....
61783	Kit - Spike .....
100882	. Screw - Hex hd 1/4-20 x 3/4 .....
101143	. Nut - Hex 1/4-20 .....
69332	Kit - Spark arrester baffle .....
61353	Shim - Sprocket (0.030 in.) .....
61352	Shim - Sprocket (0.020 in.) .....
65712	Guide - Timing .....
36248	Wrench - Spark plug .....
61040	Wrench - Screwdriver combination .....



**40:1 TWO-CYCLE MOTOR OIL**

Reduces smoke, carbon and engine wear.



- 6 oz. can #78960
- 6-pack #78961
- 16oz. can #78963
- 6-pack #78964
- 1qt. bottle #110626

**CHAIN, BAR AND SPROCKET OIL**

Specially designed for extra lubrication of bars and chains.



- 1 qt. bottle #110631
- Case of 24 #110632

**BAR GUARDS**

Protect bar and chain from accidental damage.



A

B

(A) for wide bars #56927

Black Polyvinylchloride

(B) narrow bars #64930



C

D

(C) MAC 10-16, 20" #66544

Rigid Yellow Plastic

(D) PM6-12, 16" #83124

**LOCQUIC AND**

Primer. Cleans, degreases, and accelerates curing.

7-1/2 oz. spray can. #69794



**LOCTITE**

Sealant, bonding agent



10cc plastic bottle #67537

**SPRAY PAINT**

Black

12 oz. can #103503  
Case of 12 #103400

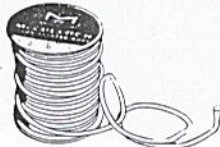


Yellow

12 oz. can #102249  
Case of 12 #102464

**STARTER ROPE**

Solid, braided nylon



100' spool

#28902

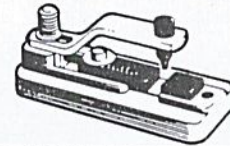
**CHAIN SHARPENING TOOLS**

The ● shows which tools are used on chains .....

		S-25	SM-57	S-40	S-80	S-90	
<p><b>McCULLOCH FILES</b></p> <p>1/8" round ●</p> <p>5/32" round ●</p> <p>3/16" round ●</p> <p>7/32" round ●</p> <p>1/4" round ●</p> <p>9/32" round ●</p> <p>8" flat ●</p> <p>6" flat safety ●</p>							
	<p><b>FILE GUIDE &amp; FILE</b></p> <p>#67750 (1/8" round) ●</p> <p>#60950 (7/32" round) ●</p> <p>(Also holds 3/16 and 1/4" round)</p>						
		<p><b>DEPTH GAUGE TOOLS</b></p> <p>#56241 .045-.060" ●</p> <p>#64198 .035-.060" ●</p> <p>#64359 .045-.050" ●</p> <p>#67688 .015-.020" ●</p> <p>#67680 .025-.030" ●</p>					
			<p><b>FILE-N-JOINT</b> Assures correct filing angle, height.</p> <p>#61034 ●</p>				

**"BREAK ALL" CHAIN BREAKER**

Required when repairing chain.



#61753  
Instructions included.

**PRESSURE TEST TOOLS**

For leakage check of crankcase, fuel system.



Basic unit #62849



The information contained in this Master Illustrated Parts List is based on original Illustrated Parts Lists, Engineering Records and the Master Parts Price List and is accurate to the best of our knowledge.

Each chain saw model is given a code letter. Whenever the code letter appears in the right hand column, the part is used on the engines of the model for which the code letter stands. When a part is used on all models covered in the Master Illustrated Parts List, the word "All" appears in the right-hand column instead of the code letters.

Names of parts have been checked and made to agree with the names given in the Master Parts Price List except in a very few cases where additional nomenclature was required.

The illustrations of the individual parts do not necessarily picture all the differences between parts with the same item number because the illustrations would be too complicated for use if they did. Instead, the illustration shows a representative part for each item number.



**McCULLOCH**



● MANUFACTURING ●

SALES ●

SERVICE ●

**McCULLOCH CORPORATION**

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