

ILLUSTRATED PARTS LIST

MODEL NAMES	SERIAL NUMBER PREFIX	MODELS
Mac™ 60-SX	14-	400028-02
Mac™ 80-SX	14-	400029-02
Mac™ 80-SX	14-	400029-12
Mac™ 85-SX	14-	400029-09
Eager Beaver® I-SX	14-	400031-02
Eager Beaver® 1-SX	14-	400031-04
Super Eager Beaver® I-SX Special	14-	400031-03
Eager Beaver® II-SX	14-	400032-02
Eager Beaver® II-SX	14-	400032-07
Eager Beaver® III-SX	14-	400032-06
Eager Beaver® III-SX	14-	400032-08
Pro Scaper™ I-SX	14-	400029-08

McCulloch String Trimmers/Brush Cutters are identified by a model number (in this instance 400028) followed by a suffix number (02, etc.). Suffix numbers denote variations in parts or assemblies used in the manufacture of this product.

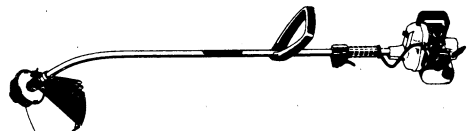
Part numbers listed in this I.P.L. which have a circled number ② or numbers preceding the description, are used only on the model or models identified by a circled number ② or numbers.

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).

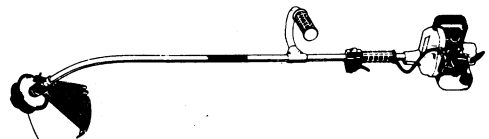
The policy of McCulloch Corporation is one of continual improvement in design, manufacturing and engineering advancement wherever possible to assure still finer power tools. Hence, specifications, equipment, colors, design and manufacturer's suggested list prices are subject to change without notice 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.

TRIMMERS & BRUSH CUTTERS

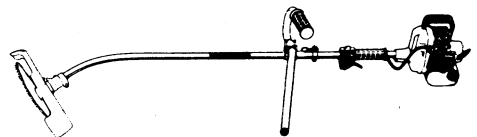
MAC™ 60-SX EAGER BEAVER® I-SX



MAC™ 80-SX SUPER EAGER BEAVER® I-SX SPECIAL EAGER BEAVER® II-SX



MAC™ 85-SX EAGER BEAVER® III-SX



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FEBRUARY 1988

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Figure 1

ENGINE ASSEMBLY

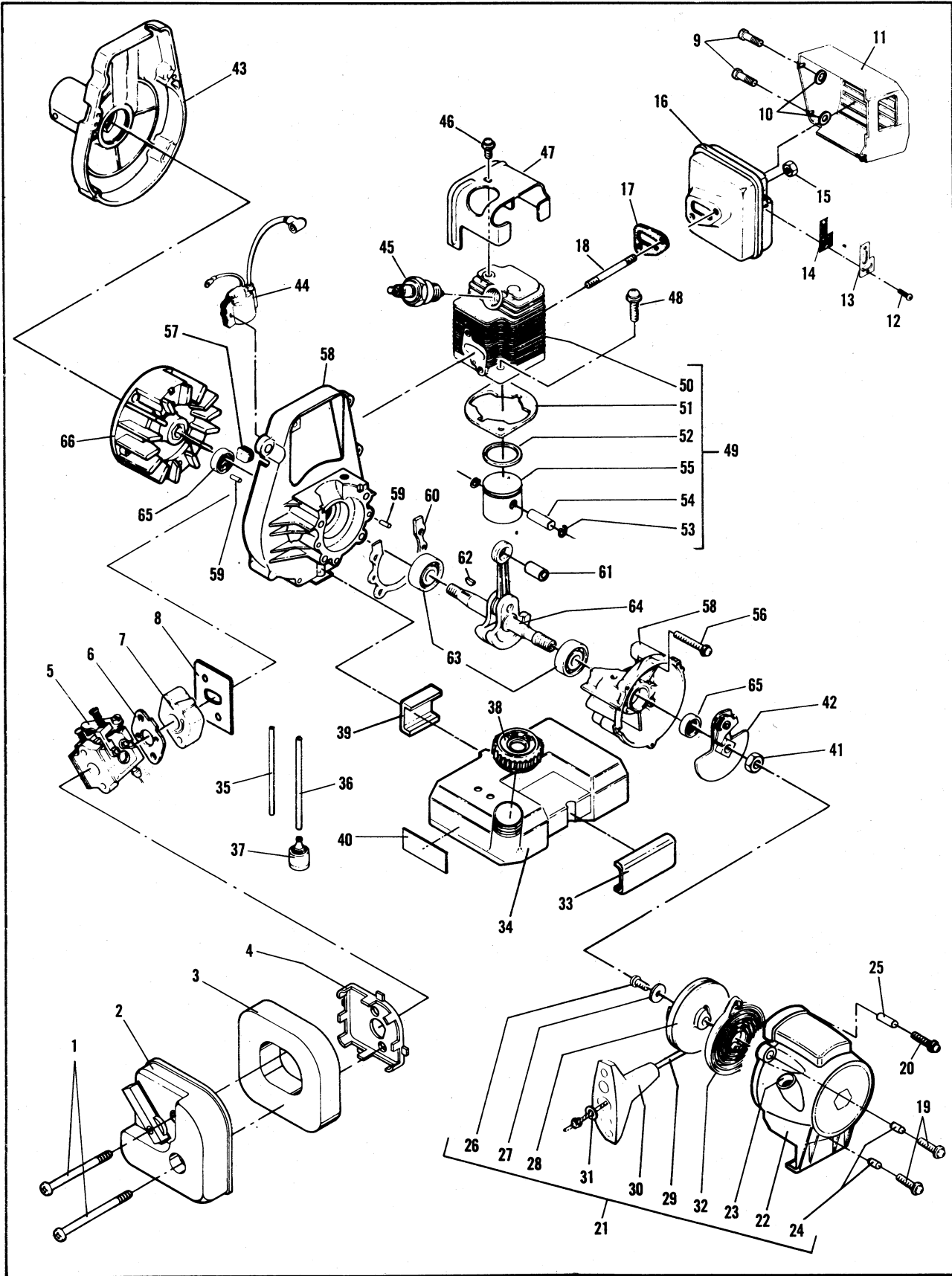


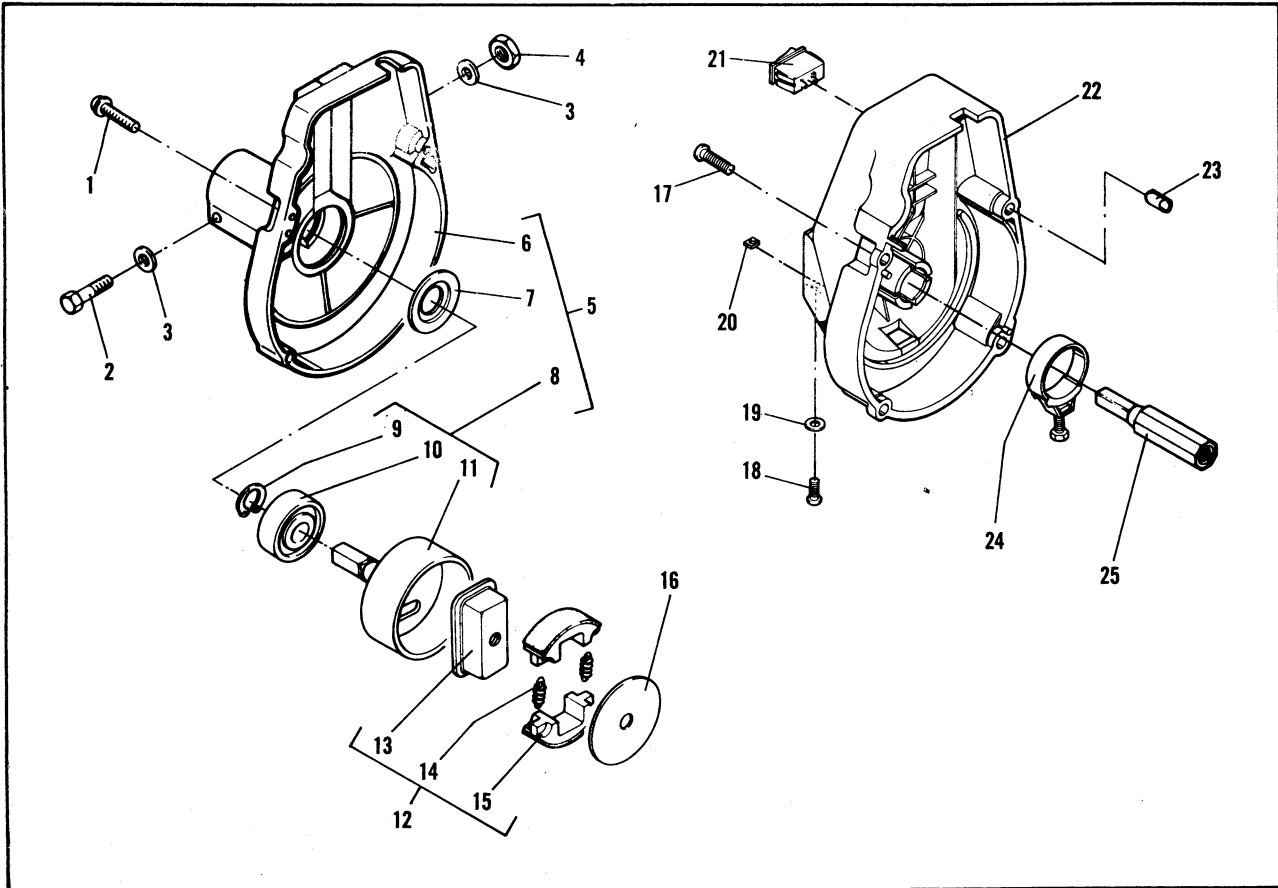
FIGURE 1 ENGINE ASSEMBLY

ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASY.
1	219078	Screw-Choke Cover (18-23 in. lb. torque)	2
2	219098	Cover Asy-Choke	1
3	219145	Filter-Air (Foam)	1
4	219144	Box-Air	1
5	Fig. 8,9	Carburetor	1
6	218933	Gasket-Carb/Insulator	1
7	219070	Insulator-Carb/C'Case	1
8	216575	Gasket-Insulator/C'Case	1
9	219508	Screw-M4x17 (13-15 in. lb. Torque)	2
10	219079	Spacer-Muffler Shield	2
11	218962	Shield-Muffler (Plastic)	1
12	219194	Screw-5-20x.438 (12-16 in. lb. Torque)	2
13	219150	Cover-Screen	1
14	219149	Screen-Spark Arrester	1
15	217275	Nut-Muffler M5 (41-50 in. lb. Torque)	2
16	219152	Muffler Asy	1
17	215515	Gasket-Muffler	1
18	215517	Stud-Muffler	2
19	216022	Screw-M4x21.40 (13-15 in. lb. Torque)	2
20	217669	Screw-M4x25 (12-16 in. lb. torque)	1
21	217388	Starter Asy (W/Steel Center Post)	1
22	217389	. Housing/Guide Asy	1
23	218932	.. Guide-Rope	1
24	219585	.. Spacer-Housing Starter	2
25	219584	.. Spacer-Muffler Shield	1
26	215874 ①	. Screw-M4x9.50 (18-21 in. lb. torque)	1
27	216590	. Washer-M4 Flat	1
28	216092	. Drum/Rope Asy	1
29	216093	.. Rope-Starter	1
30	216792	. Handle-Starter	1
31	218941	. Washer-Nylon	1
32	217482	. Spring-Starter	1
33	217382	Cushion-Fuel Tank	1
34	222239	Tank/Hose Asy-Fuel	1
35	222238	. Hose-Fuel Return	1
36	217264	. Hose-Fuel	1
37	216985	. Pickup-Fuel	1

ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASY.
38	222347	Cap-Fuel	1
39	217390	Cushion-Fuel Tank	1
40	217383	Decal-40:1	1
41	216583	Nut-Hex M8 (149-176 in. lb. torque)	1
42	215525	Ratchet Asy (Hand Tighten Only)	1
43	Fig. 2	Fan Housing Assemblies	1
44	Fig. 3	Ignition Assemblies	1
45	62345	Plug-Spark DJ8J (105-130 in. lb. torque)	1
46	213178	Screw-M5x8.5 (15-25 in. lb. torque)	1
47	215540	Cover-Cylinder	1
48	217320	Screw-M6x18 (70-80 in. lb. torque)	2
49	222594	Kit-Cylinder/Piston	1
50	219084	. Kit-Cyl(Plated)/Gasket	1
51	215542	. . Gasket-Cylinder/C'Case	1
52	217475	. Ring-Piston	1
53	111026	. Ring-Snap	2
54	218275	. Pin-Wrist	1
55	218264	. Piston(Non-Plated)	1
56	213179	Screw-M5x28.5 (35-40 in. lb. torque)	4
57	215541	Grommet	1
58	218185	Crankcase Asy	1
59	213191	Pin	4
60	215545	Gasket-Crankcase	1
61	110984	Bearing-Needle	1
62	102164	Key-Flywheel	1
63	213282	Bearing-C' Shaft(Roller)	2
64	218106-01	Crankshaft/Con Rod Asy	1
65	83859	Seal-Crankshaft	2
66	Fig. 3	Flywheel Assemblies	1

① Used only with Starter Housing equipped with steel drum mounting posts. The plastic Drum/Rope mounting post which is original equipment on Mac 60-SX; Mac 80-SX; Eager Beaver I-SX; Super Eager Beaver I-SX Special, and Eager Beaver II-SX models, requires use of service replacement screw, part number, 219568.

Figure 2 FAN HOUSING ASSEMBLIES



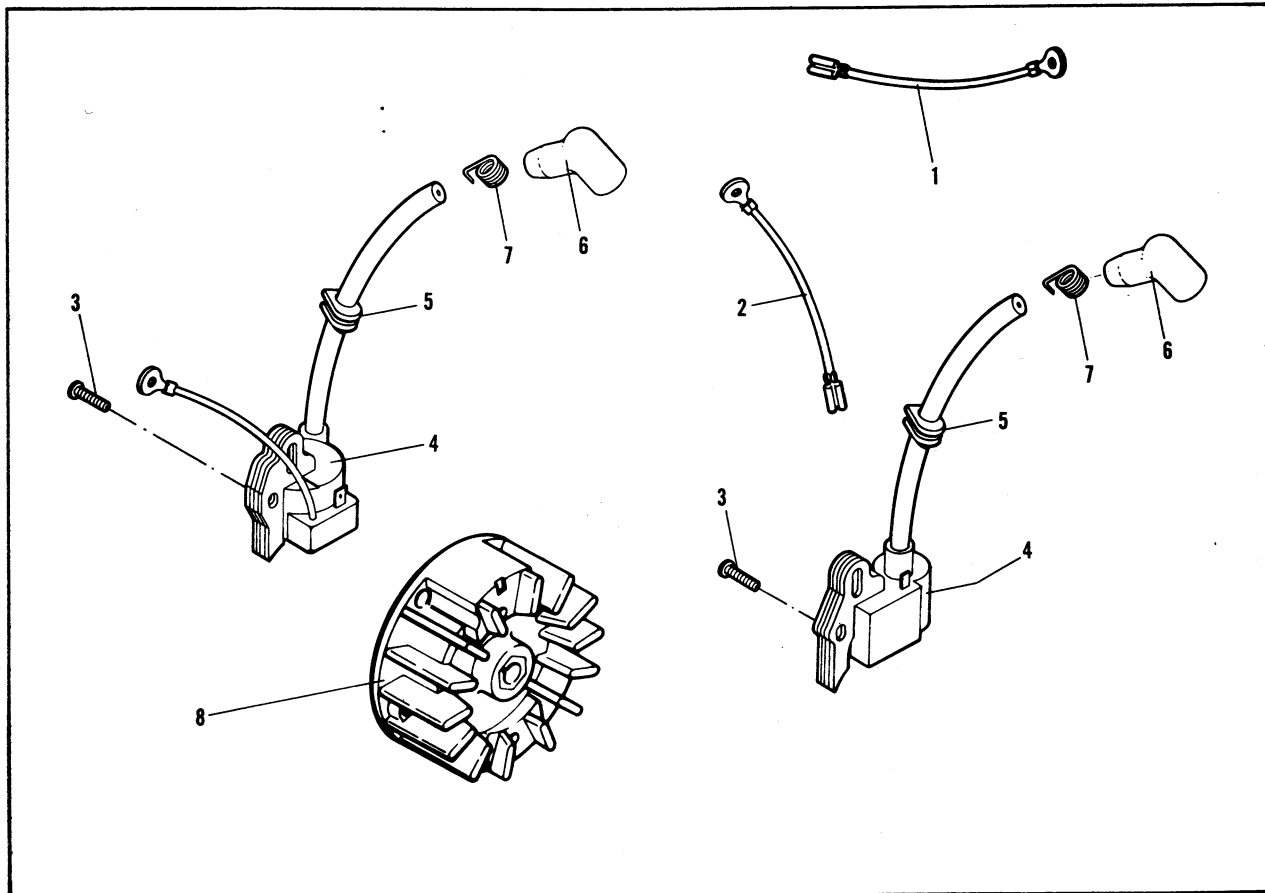
ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASY.
1	213177 ①	Screw-M4x18.50 (12-16 in. lb. torque)	4
2	217158 ①	Screw-Hex M5x35 (35-43 in. lb. torque)	1
3	216591 ①	Washer-Flat M5	2
4	217159 ①	Nut-Hex M5 (35-43 in. lb. torque)	1
5	218057 ①	Housing-Asy-Fan	1
6	217533	. Housing-Fan	1
7	215534	. Plate-Thrust	1
8	218065	. Drum-Asy-Clutch	1
9	213186	.. Ring-Retaining	1
10	213187	.. Bearing-Ball	1
11	218063	.. Drum-Clutch	1
12	21606 ①	Clutch Asy	1
13	21553b	. Rotor	1
14	215537	. Spring	2
15	-- --	. Shoe	2

ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASY.
16	215539	Plate-Side	1
17	219508 ②	Screw-M4x17 (12-16 in. lb. torque)	4
18	215874 ②	Screw-M4x9.5 Torx (10-13 in. lb. torque)	1
19	217672 ②	Washer-M4 Flat	1
20	219558 ②	Nut-Square	1
21	218648 ②	Switch	1
22	219595 ②	Housing-Fan (W/Switch Hole)	1
23	219024	. Spacer-Fan Housing	4
24	219025	. Clamp-Drive Shaft Asy (25-30 in. lb. torque)	1
22	219596 ③	Housing-Fan (W/O Switch Hole)	1
23	219024	. Spacer-Fan Housing	4
24	219025	. Clamp-Drive Shaft Asy (25-30 in. lb. torque)	1
25	217477 ②③	Coupling	1

① Used on Mac 80-SX; Mac 85-SX; Eager Beaver II-SX; Eager Beaver III-SX, and Pro Scaper I-SX.
 ② Used on Mac 60-SX and Eager Beaver I-SX.
 ③ Used on Super Eager Beaver I-SX Special.

IGNITION & FLYWHEEL ASSEMBLIES

Figure 3

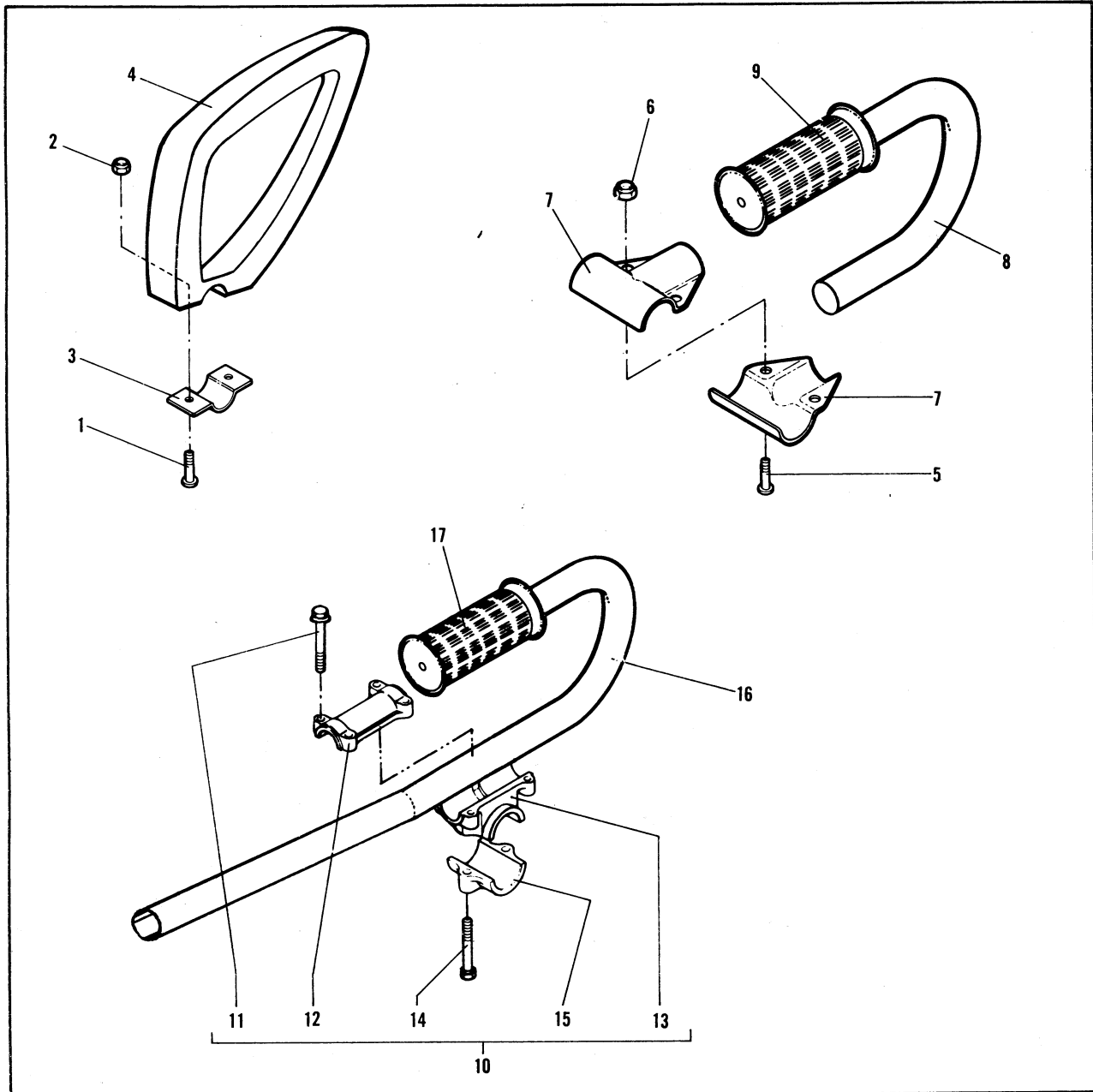


ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASY.
1	218649 ①	Wire Asy-Ground	1
2	219383	Wire Asy-Switch	1
3	216022	Screw-M4x18.9 (12-16 in. lb. torque)	2
4	219386 ②	Ignition Asy (Black)	1
	219782 ③	Ignition Asy (Cream)	1
5	215533	. Grommet	1
6	235922	. Boot-Spark Plug	1
7	235433	. Connector-Spark	1
8	219951 ②	Flywheel	1
	222308 ③	Flywheel	1

- ① Used on Mac 60-SX and Eager Beaver I-SX models only.
- ② Units are being manufactured with one of two Ignition/Flywheel combinations. Identify components before ordering service replacement parts. If replacing black color Ignition, order part number 219386. If replacing Flywheel on a unit equipped with a black Ignition, order Flywheel, part number, 219951.
- ③ Units are being manufactured with one of two Ignition/Flywheel combinations. Identify components before ordering service replacement parts. If replacing cream color Ignition, order part number 219782. If replacing Flywheel on a unit equipped with a cream Ignition, order Flywheel, part number, 222308.

Figure 4

HANDLE ASSEMBLIES



ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASY.
1	120041 ①	Screw-Hex M5x22 (18-26 inch pounds torque)	2
2	217159 ①	Nut-Hex M5	2
3	217442 ①	Clamp-Delta Handle	1
4	217444 ①	Handle-Delta	1
5	217935 ③	Screw-10-24x.50 (26-35 inch pounds torque)	2
6	218315 ③	Nut- "J" Handle	2
7	215337 ③	Clamp- "J" Handle	2
8	217856 ③	"J" Handle/Grip Asy	1
9	94212	. Grip	1

ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASY.
10	218391 ②	Clamp Asy	1
11	---	. Screw-M5x.8 (26-35 inch pounds torque)	4
12	---	. Clamp-Top	1
13	---	. Clamp-Centerpiece	1
14	---	. Screw-M6x1 (44-52 inch pounds torque)	2
15	---	. Clamp-Bottom	1
16	218327 ②	"J" Handle/Barrier/Grip Asy	1
17	94212	. Grip	1

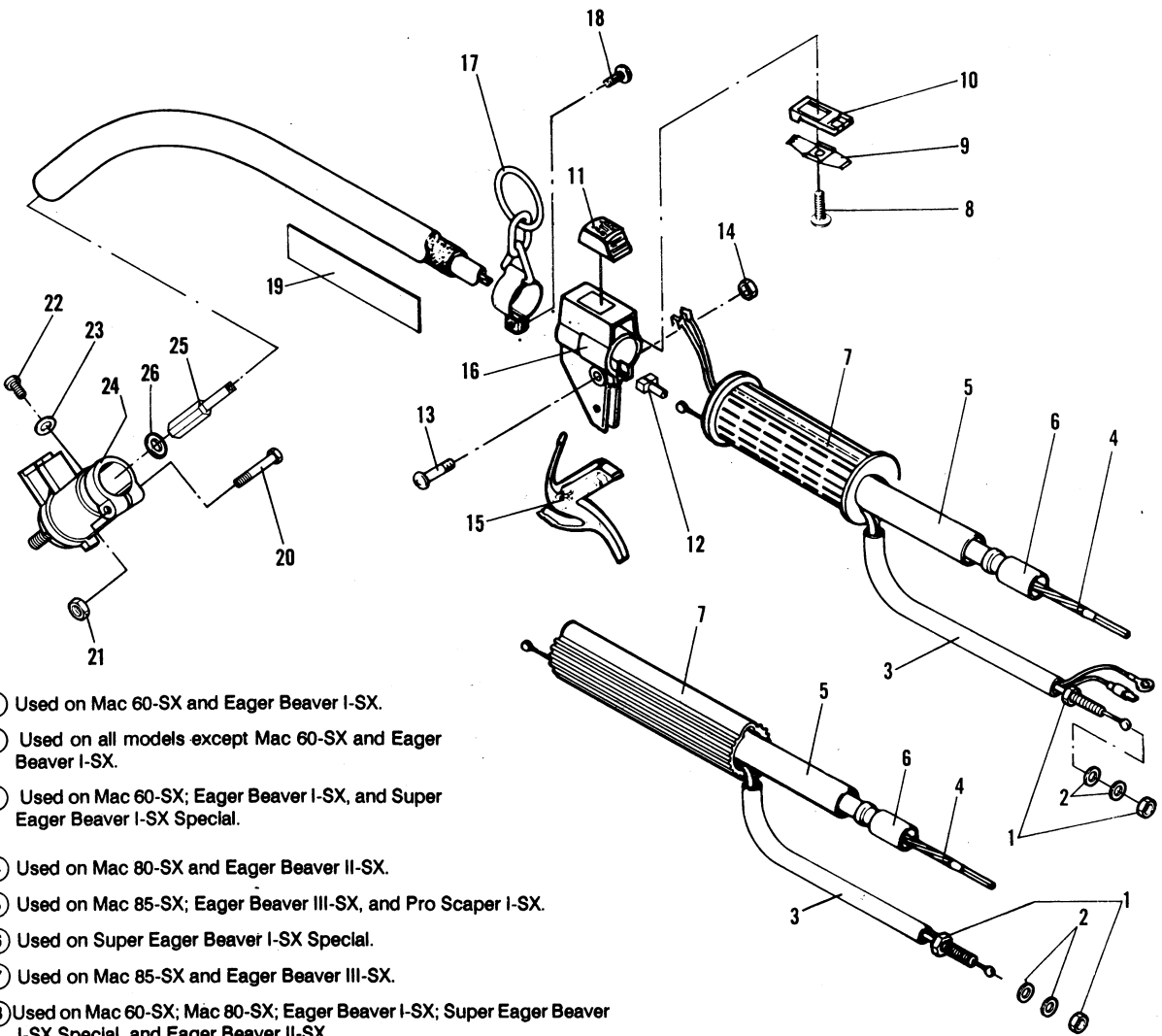
① Used on Mac™ 60-SX and Eager Beaver® I-SX.

② Used on Mac™ 85-SX and Eager Beaver® III-SX.

③ Used on Mac™ 80-SX, Pro Scaper™ I-SX, Super Eager Beaver® I-SX Special, and Eager Beaver® II-SX.

DRIVE SHAFT

Figure 5



- ① Used on Mac 60-SX and Eager Beaver I-SX.
- ② Used on all models except Mac 60-SX and Eager Beaver I-SX.
- ③ Used on Mac 60-SX; Eager Beaver I-SX, and Super Eager Beaver I-SX Special.
- ④ Used on Mac 80-SX and Eager Beaver II-SX.
- ⑤ Used on Mac 85-SX; Eager Beaver III-SX, and Pro Scaper I-SX.
- ⑥ Used on Super Eager Beaver I-SX Special.
- ⑦ Used on Mac 85-SX and Eager Beaver III-SX.
- ⑧ Used on Mac 60-SX; Mac 80-SX; Eager Beaver I-SX; Super Eager Beaver I-SX Special, and Eager Beaver II-SX.

ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASY.
1	217403	Nut-M6 (18-26 inch pounds torque)	2
2	216596	Washer-Throttle Cable	2
3	217360 ①	Cable-Throttle	1
	215306 ②	Harness-Throttle Cable/ Wire Assembly	1
4	218285 ③	Shaft-Flexible Drive 44"	1
5	222304 ③	Housing Asy-Outer 44"	1
6	218282	. Sleeve (For 44" Shaft)	1
4	215324 ④	Shaft-Flexible Drive 48"	1
5	222313 ④	Housing Asy-Outer 48"	1
6	217366	. Sleeve (For 48" Shaft)	1
4	218326 ⑤	Shaft-Flexible Drive 54"	1
5	217362 ⑤	Housing Asy-Outer 54"	1
6	217367	. Sleeve (For 54" Shaft)	1
7	218376 ①	Grip-Solid Rubber	1
	215322 ②③⑥	Grip-Waffle Design	1
8	110706 ②	Screw-8-18x.50	1
9	215320 ②	Contact-Switch	1
10	215319 ②	Base-Switch	1
11	68846 ②	Button-Switch	1
12	215323	Guide-Throttle Cable	1

ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASY.
13	216027	Screw-M5x28.5	1
14	217159	Nut-Hex M5	1
15	215318	Trigger-Throttle	1
16	217337 ①	Hsg-Trigger(W/O Switch Hole)	1
	215317 ②	Hsg-Trigger(W/Switch Hole)	1
17	218001 ⑦	Ring Asy-Harness	1
18	-- --	. Bolt-Ring	1
19	218295	Decal-Warning (For String Trimmer Only)	1
	219030	Decal-Warning (For String Trimmer/Brush Cutter Only)	1
20	217937	Screw-10-24x1	1
21	218315	Nut	1
22	215874	Screw-M4x9.5	1
23	217672	Washer-M4 Flat	1
24	218241 ⑤	Spindle Asy	1
25	217477	. Coupling	1
24	222468 ⑧	Kit-Spindle Housing Assembly	1
25	217477 ⑧	Coupling	1
		(70 Inch Pounds Torque)	
26	222402 ⑧	Washer-Thrust	1

Figure 6

Debris Shield/String Head Cutter/
Blade Guard/Blade Assemblies

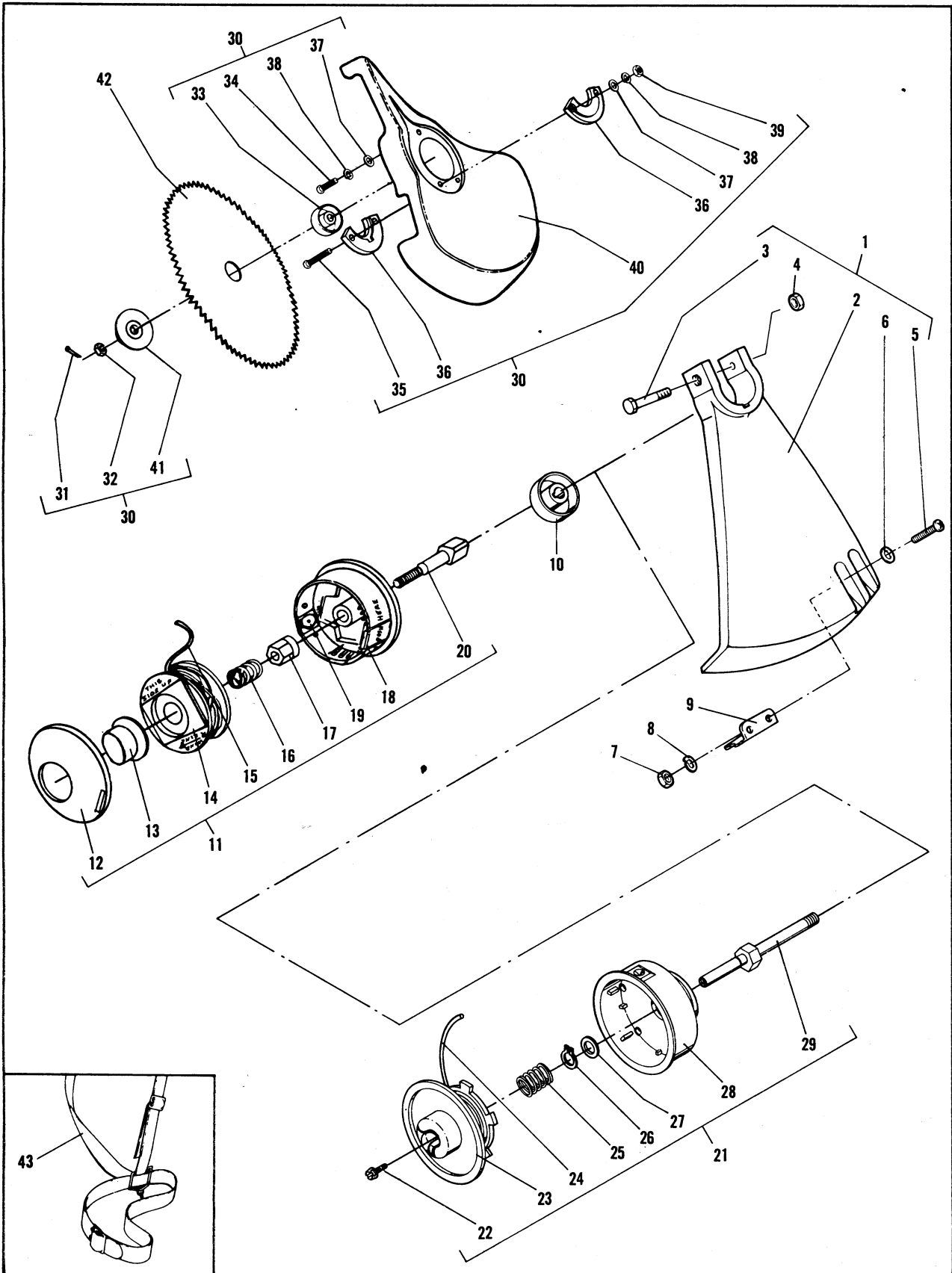


FIGURE 6 Debris Shield/String Head Cutter/Blade Guard/Blade Assemblies

ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASY.
1	217869	Kit-Shield Grass	1
2	215314	. Shield-Grass	1
3	216595	. Screw-Hex M6x50	1
4	215871	. Nut-Hex M6x1 (18-26 in. lb. torque)	1
5	217936	. Screw-10-25x.75 TORX	2
6	110582	. Washer-Flat	2
7	218315	. Nut-Hex	2
8	103174	. Washer-Lock	2
9	216587	. Knife	1
10	218214	① Collar (String Head Use Only)	1
11	219784	① Head Asy-String (.095)	1
12	219765	. Cover	1
13	219764	. Button	1
14	219786	. Spool With Line (.095) (Line Replacement)	1
15	Fig. 9		
16	219761	. Spring	1
17	219760	. Nut	1
18	219758	. Housing	1
19	219759	. . Eyelet	1
20	219757	. Bolt-Shaft	1
21	222315	②③ String Head Assembly (.095)	1
22	222494	. Screw-Hex Head Slotted	1
23	222409	. Spool/Line Assembly (.095)	1
24	Fig. 9		
25	219826	. Spring	1
26	222403	. Ring-Retaining	1
27	222401	. Washer-Plain	1
28	222410	. Housing/Eyelet Assembly	1
29	222400	. Spindle	1

ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASY.
30	218200	④ Kit-Blade Guard	1
31	218159	. Pin-Cotter	1
32	218330	. Nut-Blade Retaining (260 inch pounds torque)	1
33	218094	. Collar (For Use With Blade	1
34	217935	. Screw-10-24x.50 Torx (18-26 inch pounds torque)	1
35	217936	. Screw-10-24x.75 Torx (18-26 inch pounds torque)	2
36	218165	. Clamp-Guard	2
37	110582	. Washer-Flat	3
38	103174	. Washer-Lock	3
39	218315	. Nut	2
40	218329	. Guard-Blade (Right Hand)	1
41	218075	. Flange (Brush Cutter Only)	1
42	216514-01	④ Blade-Brush 80 Tooth	1
43	218158	④ Harness	1

① Used on Mac 85-SX; Eager Beaver III-SX, and Pro Scaper I-SX.

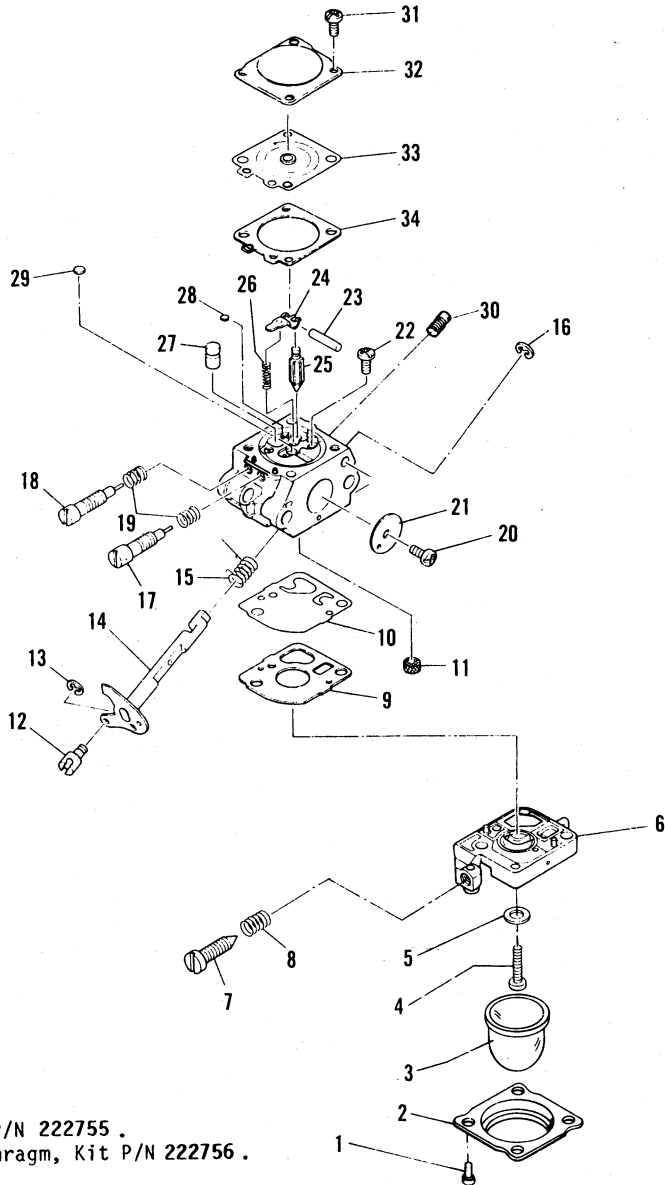
② Used on Mac 60-SX and Eager Beaver I-SX.

③ Used on Mac 80-SX; Super Eager Beaver I-SX Special, and Eager Beaver II-SX.

④ Used on Mac 85-SX and Eager Beaver III-SX.

Figure 7

CARBURETOR ASSEMBLY



- ① Contained in Major Kit, P/N 222755.
- ② Contained in Gasket/Diaphragm, Kit P/N 222756.

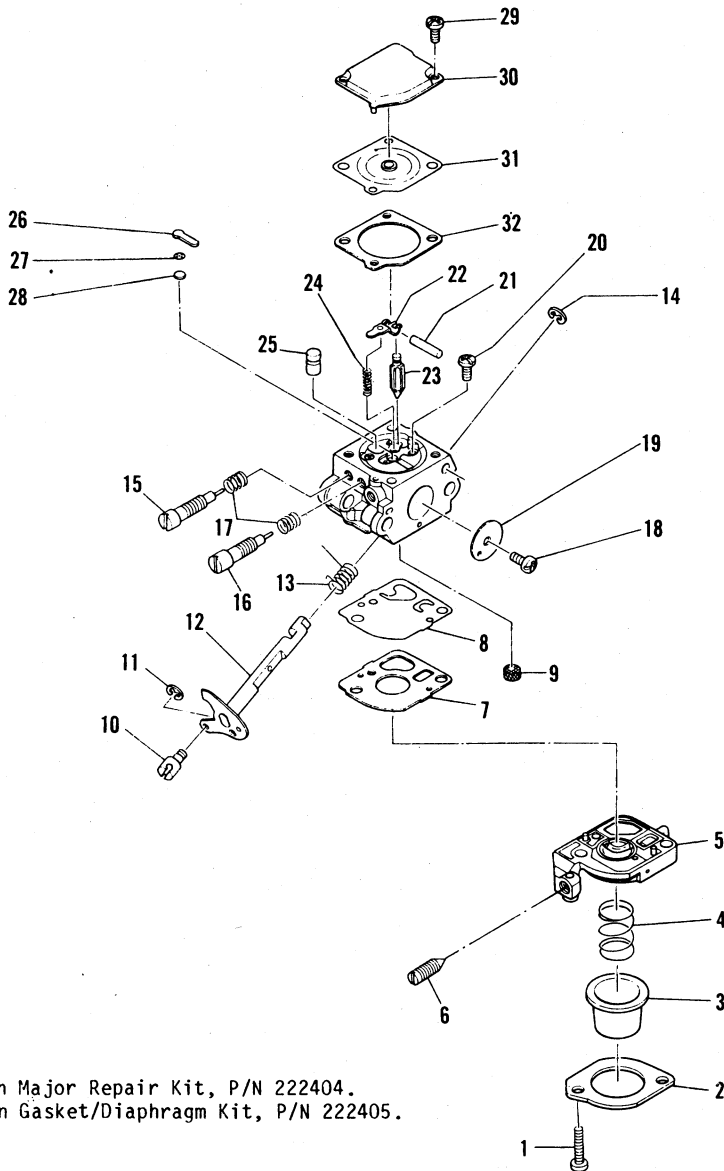
ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASY.
	*222317	Carburetor Asy-WT-91	1
1	-- --	. Screw-Pump Cover	4
2	-- --	. Retainer-Cover	1
3	-- --	. Primer	1
4	-- --	. Screw	1
5	-- --	. Washer	1
6	-- --	. Base Asy-Primer	1
7	-- --	. Screw-Idle Adj.	1
8	-- --	. Spring	1
9	-- -- ①②	. Gasket-Fuel Pump	1
10	-- -- ①②	. Diaphragm-Fuel Pump	1
11	-- -- ①	. Screen	1
12	-- --	. Post	1
13	-- --	. Ring- "E"	1
14	-- --	. Shaft Asy-Throttle	1
15	-- -- ①	. Spring	1
16	-- --	. Ring- "E"	1
17	-- -- ①	. Screw-Low Speed Adj	1

ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASY.
18	-- -- ①	. Screw-High Speed Adj	1
19	-- -- ①	. Spring	2
20	-- -- ①	. Screw-Throttle Valve	1
21	-- --	. Valve-Throttle	1
22	-- -- ①	. Screw-Pin Retaining	1
23	-- -- ①	. Pin-Metering Lever	1
24	-- -- ①	. Lever-Metering	1
25	-- -- ①	. Valve-Inlet	1
26	-- -- ①	. Spring-Metering Lever	1
27	-- --	. Nozzle Asy-Check Valve	1
28	-- -- ①	. Plug-Welch	1
29	-- -- ①	. Plug-Welch	1
30	-- --	. Governor-Check Valve	1
31	-- -- ①	. Screw-Metering Cover	4
32	-- --	. Cover-Metering Diaphragm	1
33	-- -- ①②	. Diaphragm Asy-Metering	1
34	-- -- ①②	. Gasket-Metering Cover	1

*Used on Mac™ 85-SX and Eager Beaver® III-SX.

CARBURETOR ASSEMBLY

Figure 8



- ① Included in Major Repair Kit, P/N 222404.
- ② Included in Gasket/Diaphragm Kit, P/N 222405.

ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASY.
	*222209	Carburetor-Zama M16	
1	---	. Screw-Pump Cover	2
2	---	. Retainer-Primer	1
3	---	. Primer	1
4	---	. Spring-Primer	1
5	---	. Base Asy-Primer	1
6	---	. Screw-Idle Adjustment	1
7	---	② . Gasket-Pump	1
8	---	② . Diaphragm-Pump	1
9	---	① . Strainer	1
10	---	. Post	1
11	---	. Ring-"E"	1
12	---	. Shaft Asy-Throttle	1
13	---	. Spring-Throttle Return	1
14	---	. Ring-"E"	1
15	---	① . Screw-High Speed Adj.	1
16	---	① . Screw-Low Speed Adj.	1

ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASY.
17	---	① . Spring-Adj. Screws	2
18	---	. Screw-Throttle Valve	1
19	---	. Valve-Throttle	1
20	---	. Screw-Pin Retaining	1
21	---	① . Pin-Metering Lever	1
22	---	① . Lever-Metering	1
23	---	① . Valve-Inlet	1
24	---	① . Spring-Metering Lever	1
25	---	① . Nozzle Asy-Check Valve	1
26	---	① . Plug-Welch	1
27	---	. Retainer-Check Valve	1
28	---	. Valve-Check	1
29	---	. Screw-Metering Cover	1
30	---	. Cover-Metering Chamber	1
31	---	② . Diaphragm Asy-Metering	1
32	---	② . Gasket-Metering Cover	1

*Used on all models except Mac™ 85-SX and Eager Beaver® III-SX.

Figure 9

ACCESSORIES & REPLACEMENT PARTS

STRING TRIMMER AND BRUSH CUTTER	DESCRIPTION	PART NUMBER	MAC™ 80-SX	MAC™ 80-SX	MAC™ 85-SX	EAGER BEAVER® I-SX	BEAVER® I-SX SPECIAL	BEAVER® I-SX	EAGER BEAVER® II-SX	EAGER BEAVER® II-SX	PRO SCAPER™ I-SX
	Semi-Auto Head .095	222488	•	•		•	•	•			
	14' Line on Spool .095	222487	•	•		•	•	•			
	1-Lb. Bulk Line .080	217351-01	•	•		•	•	•			
	5-Lb. Bulk Line .080	217352-01	•	•		•	•	•			
	Semi-Auto Head .095	219784				•					•
	12' Line .095	219788				•					•
	12' Line on Spool .095	219786				•					•
	1-Lb. Bulk Line .095	216899-01	•	•	•			•	•	•	•
	5-Lb. Bulk Line .095	216900-01	•	•	•			•	•	•	•
	Harness Kit	218201				•					•
	Debris Shield Kit	217869	•	•	•	•	•	•	•	•	•
	4-Tooth Weed/Grass Blade	218213				•					•
	3-Point Plastic Grass Blade	218212				•					•
	3-Point Plastic Blade/Guard Kit	218211				•					•
	Blade Guard Kit	218200				•					•
	8-Tooth Weed/Grass Blade	216513-01				•					•
	80-tooth Metal Brush Blade	216514-01				•					•

Figure 10

SPECIFICATIONS/TOOLS/LUBRICANTS

SPECIFICATIONS

ENGINE TYPE	Air-cooled, Two Cycle, Single Cylinder
BORE	1.268 inches (32.21mm)
STROKE	1.023 inches (26mm)
DISPLACEMENT	1.29 cubic inches (21.2cc)
CYLINDER	Chrome/A luminum
IGNITION	Solid State
SPARK PLUG	.025 INCHES (.63mm) Champion DJ8J or Equivalent
GASOLINE	Regular Grade Leaded or Unleaded
GASOLINE/OIL RATIO	40:1 McCulloch Custom Lubricant 20:1 Using Any Other Two-Cycle Oil
FUEL TANK CAPACITY	14.6 Fluid Ounces
RUNNING TIME	35 to 45 minutes
IGNITION LAMINATION TO FLYWHEEL AIR GAP	Electronic .010 inches (.25mm)
HANDLE	Delta/J Handle/J With Barrier Pole
STRING HEAD CUTTER	Semi-Automatic
LINE	Nylon .080"/.095"
CUTTING SWATH	15" .080 Line/17" .095"
CARBURETOR	Diaphragm/Primer Type

SERVICE TOOLS

DESCRIPTION	PART #
Tool-Piston Driving	.215439
Tool-Clutch Puller	.215441
Plate-Pressure Test	.215443
Gasket-Intake Plate	.215444
Gasket-Exhaust	.215445
Wrench-8/10mm	.217355
Lock-Spindle	.216767
Wrench-9/16" Socket	.218175
Torx Drive T-25 (cylinder)	.222785

CUSTOM LUBRICANTS

McCulloch Two-Cycle 40:1	PART #
Case 6 ounce Cans (48)	93770
Case 1 quart Bottles (12)	85709