

**FIGURE 1 POWERHEAD ASSEMBLY**

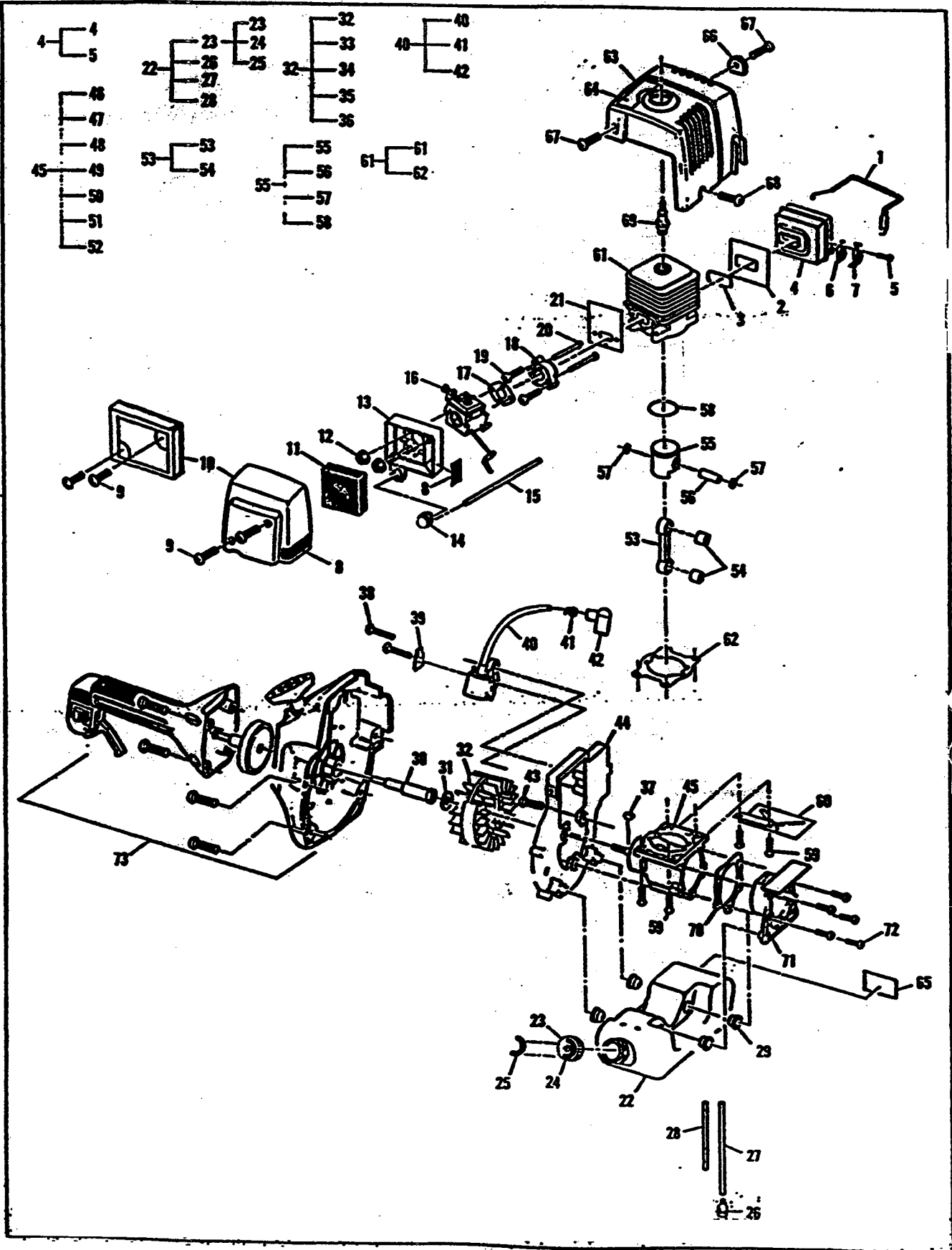


FIGURE 1 ENGINE ASSEMBLY

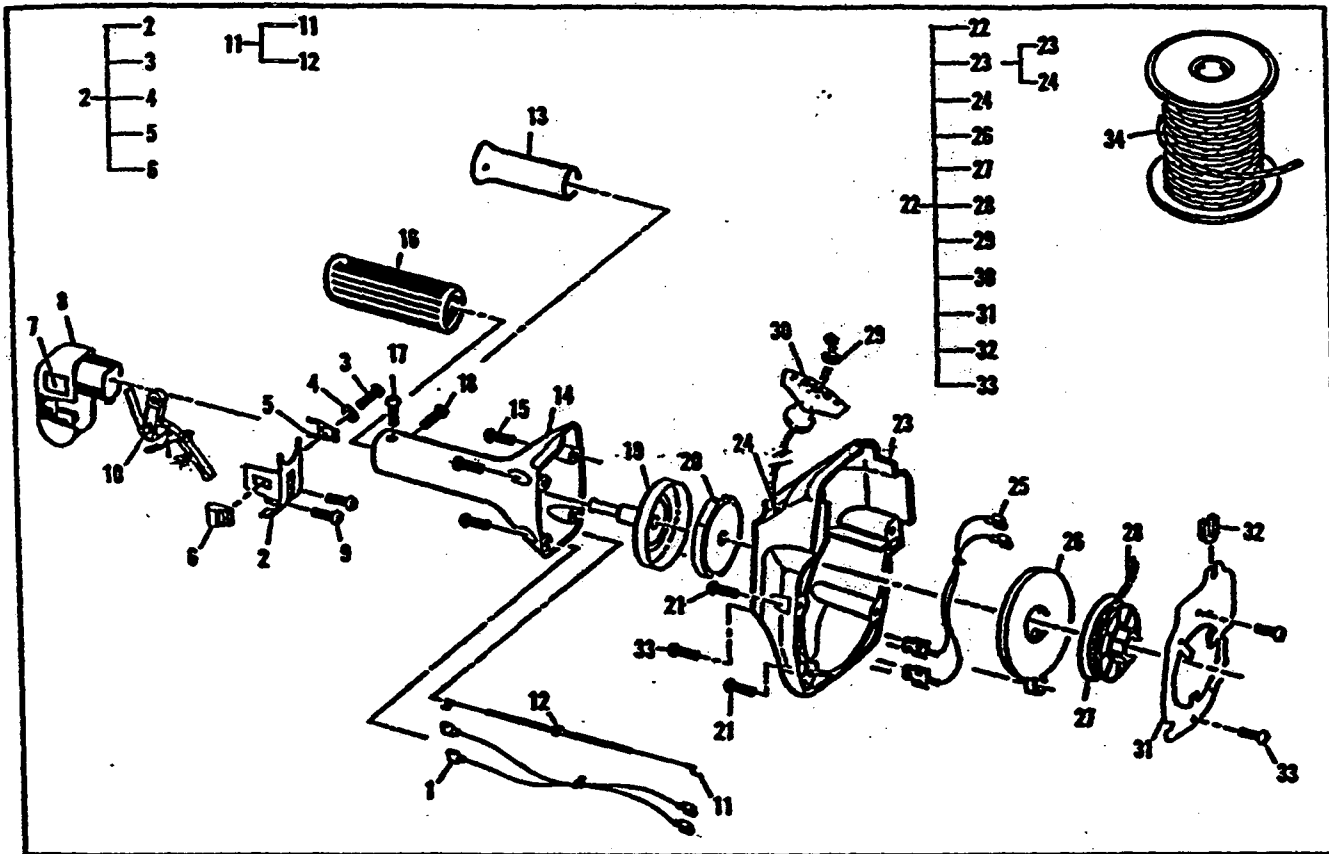
ITEM NO.	STK CODE	PART NUMBER	DESCRIPTION	UNITS PER ASY.
1	B	224044	Spring, Muffler	1
2	B	224228	Gasket, Muffler	1
3	B	224922	Gasket, Exhaust Port	1
4	B	224034	Muffler Assembly	1
5	B	111072	. Screw, 8-18x.31 PN HD Torx	1
6	B	224040	Screen, Spark Arrestor	1
7	B	322032	Cover, Spark Arrestor	1
8	C	322101	Label, Choke	1
	C	322096	Label, Choke	1
9	A	111055	Screw, 10-14 x .625	2
10	C	224237	Cover, Air Cleaner (Small)	1
	B	224236	Cover, Air Cleaner (Large/Blk)	1
11	A	224239	Filter, Air	1
12	A	111058	Nut, 10-24 Flange / Hex	2
13	B	224238	Box, Air (Blk)	1
14	A	224242-02	Primer, Remote	1
15	A	225163	Hose, Fuel	1
16		224033-02	Fig.3 Carburetor w/Choke	1
17	A	218933	Gasket, Carburetor	1
18	B	224041	Manifold, Carburetor	1
19	B	111053	Screw, 10-24 x .88	2
20	A	111057	Screw, 10-24 SPL	2
21	A	322031	Gasket, Manifold	1
22	A	300889	Kit, Fuel Tank / Cap	1
23	A	300700	. Kit, Fuel Cap	1
24	C	211242	. Decal (OPEN SLOWLY)	1
25	C	322250	. Decal, Fuel Cap (INTL)	1
26	A	218985	. Pickup, Fuel	1
27	A	225162	. Hose, Fuel	1
28	A	225163	. Hose, Fuel Return	1
29	A	322105	Isolator, Fuel Tank	4
30	C	224025	Adapter, Clutch	1
31	B	105989	Washer, .32 ID	1
32	C	224021	Flywheel / Pawl Assembly	1
33			. Pin, Starter Pawl	2
34			. Pawl	2
35			. Spring, Starter Pawl	2
36			. Washer, Starter Pawl	2
37	A	102164	Key, Flywheel	1

ITEM NO.	STK CODE	PART NUMBER	DESCRIPTION	UNITS PER ASY.
38	B	111053	Screw, 10-24 x .88	2
39	B	300321	Terminal Tab	1
40	B	300519	Ignition Assembly	1
41	A	102556	. Connector, Spark	1
42	A	95286	. Boot, Spark Plug	1
43	C	111054	Screw, 10-24 x .625	3
44	C	224042	Shroud, Engine Machined	1
45	B	224020	Crankcase / Shaft Assembly	1
46			. Crankshaft Assembly	1
47			. Crankcase, Machined	1
48			. Bearing 6202	1
49			. Bearing 6202RS	1
50			. Seal	1
51			. Spacer	1
52			. O-Ring	1
53	B	224009	Connecting Rod Assembly	1
54	A	91117	. Bearing	2
55	B	300662	Kit, Piston, 28cc Chrome	1
56	B	300482	. Pin, Piston (10mm dia)	1
57	B	215876	. Ring, Retaining	2
58	B	224224	. Ring, Piston 35mm	1
59	B	111065	Screw, 10-24 x .688	4
60	B	322030	Shield, Muffler	1
61	B	300451	Kit, Cylinder 28cc Aluminum	1
62	B	224022	. Gasket, Cylinder	1
63	B	224235	Cover, Cylinder/Muffler (Blk)	1
64		322346	Label, Start Instructions	1
65	C	322100	Label, Storage	1
66	B	322210	Washer, Plastic	1
67	B	111067	Screw, 10-24 x .63 Torx	2
68	B	111068	Screw, 10-14 x 1.36 Tap6ts	1
69	A	62345	Spark Plug / DJBJ	1
70	B	224023	Gasket, Crankcase	1
71	B	224024	Plug, Crankcase	1
72	B	111065	Screw, 10-24 x .688	5
73		Fig 2	Clutch/Starter Assemblies	

- ① 11400128-02
- ② 11400128-02  
11400128-10  
11400128-28
- ③ 11400128-08  
11400128-20  
11400128-18
- ④ 11400128-02  
11400128-08  
11400128-10
- ⑤ 11400128-02  
11400128-10  
11400128-28  
11400128-18
- ⑥ 11400128-08  
11400128-20
- ⑦ 11400128-18

LOCTITE KIT	
PART NUMBER	DESCRIPTION
322235	LOCTITE KIT
322236	. RETAINING COMPOUND 620 (10 ml)
322237	THREAD LOCKER 242 (10 ml)
322238	GASKET ELIMINATOR 518 (50 ml)
322239	.BLACK MAX ADHESIVE 360 (101 ml)

# FIGURE 2 CLUTCH/STARTER HOUSING ASSEMBLY



ITEM NO.	STK CODE	PART NUMBER	DESCRIPTION	UNITS PER ASY.
1	B	224204	Wire Assembly, Switch	1
2	B	300064	Cover Assembly, Switch	1
3	B	111059	. Screw, 8-18 x .375	1
4	B	105487	. Washer, Flat (.180 IDmax)	1
5	B	224248	. Contact, Switch	1
6	B	224245	. Button, Stop Switch	1
7	B	322081	Label, ON/OFF Switch	1
8	B	224234	Trigger Housing Assembly	1
9	B	111081	Screw, 6-19 x .62	2
10	B	300361	Trigger, Throttle	1
11	B	300372	Throttle Cable Assembly	1
12	B	111074	. Nut, Speed .188 ID	1
13	B	322234	Sleeve, Protecting	1
14	B	224912	Housing, Clutch (Yellow)	1
	B	300014	Housing, Clutch (Grey)	1
15	B	224919	Screw, 10-14 x 1.0	4
16	B	322140	Grip	1
17	B	111070	Screw, 12-11 x .5 Torx (top)	1
18	B	111059	Screw, 10-14 x .5 Torx	1
19	B	224045	Drum Assembly, Clutch	1

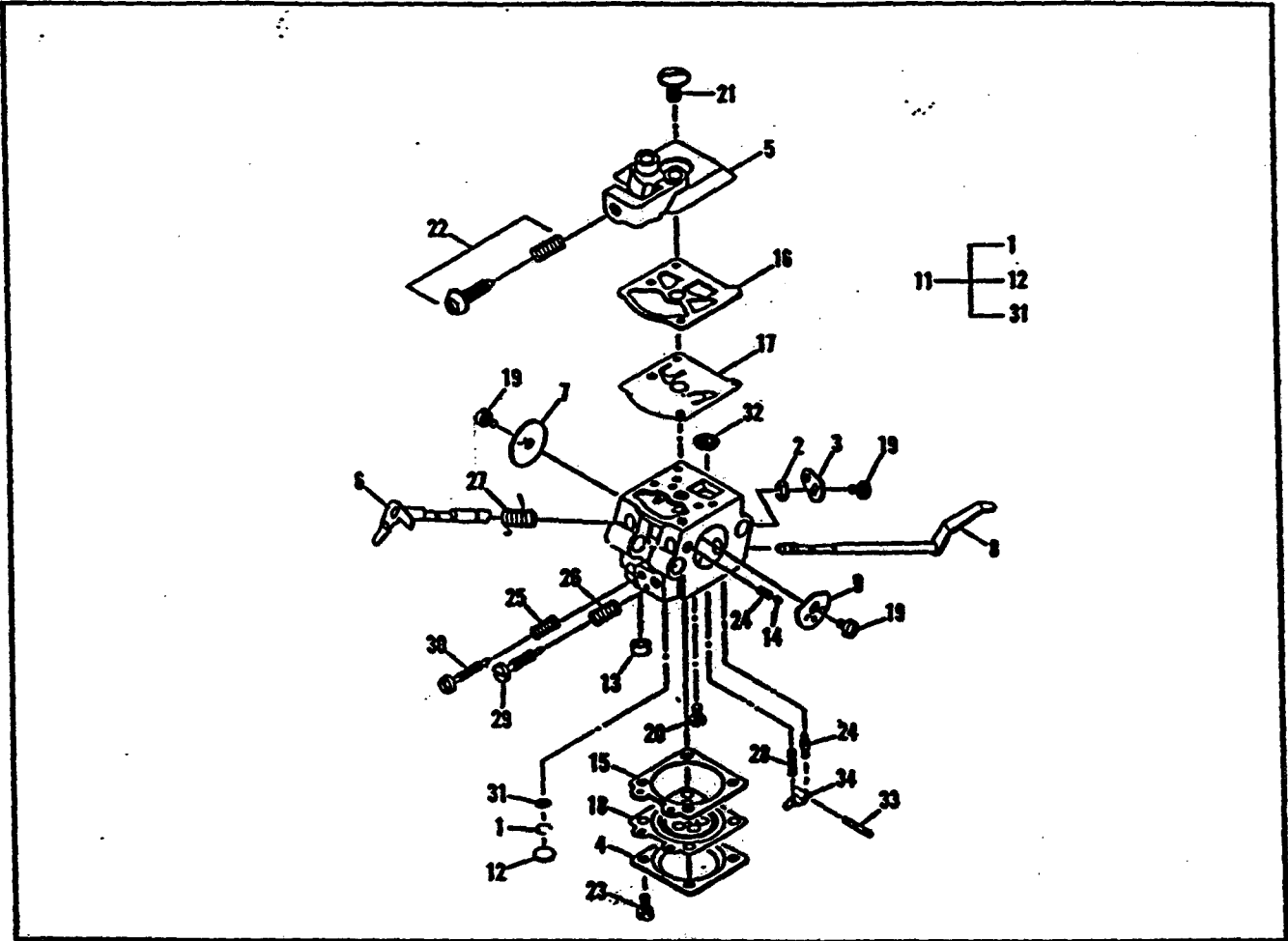
ITEM NO.	STK CODE	PART NUMBER	DESCRIPTION	UNITS PER ASY.
20	B	300459	IG, Clutch	1
21	C	111054	Screw 10-24x.825	4
22	B	224916	Starter Housing Assembly (Yel)	1
23	B	300618	. Housing/Guide, Rope (Yel)	1
	C	300013	Starter Housing Assembly (Grey)	1
	C	300618	. Housing/Guide, Rope (Grey)	1
24	B	--	. Guide, Rope	1
25	B	300369	. Wire Assembly	1
26	B	300475	. Package, Spring/Starter R/wnd	1
27	A	219496	. Pulley, Starter	1
28	A	222869	. Rope, Starter (46')	1
29	A	218941	. Washer, Nylon	1
30	A	216792	. Handle, Starter	1
31	B	224927	. Plate, Baffle	1
32	B	215533-01	. Grommet, H/T Lead	1
33	B	223357	. Screw, 8-18	3
34	A	300415	Rope, Bulk	1

© 11400128-02  
 11400128-10  
 11400128-28  
 11400128-18

© 11400128-06  
 11400128-20

# CARBURETOR ASSEMBLY

## FIGURE 3

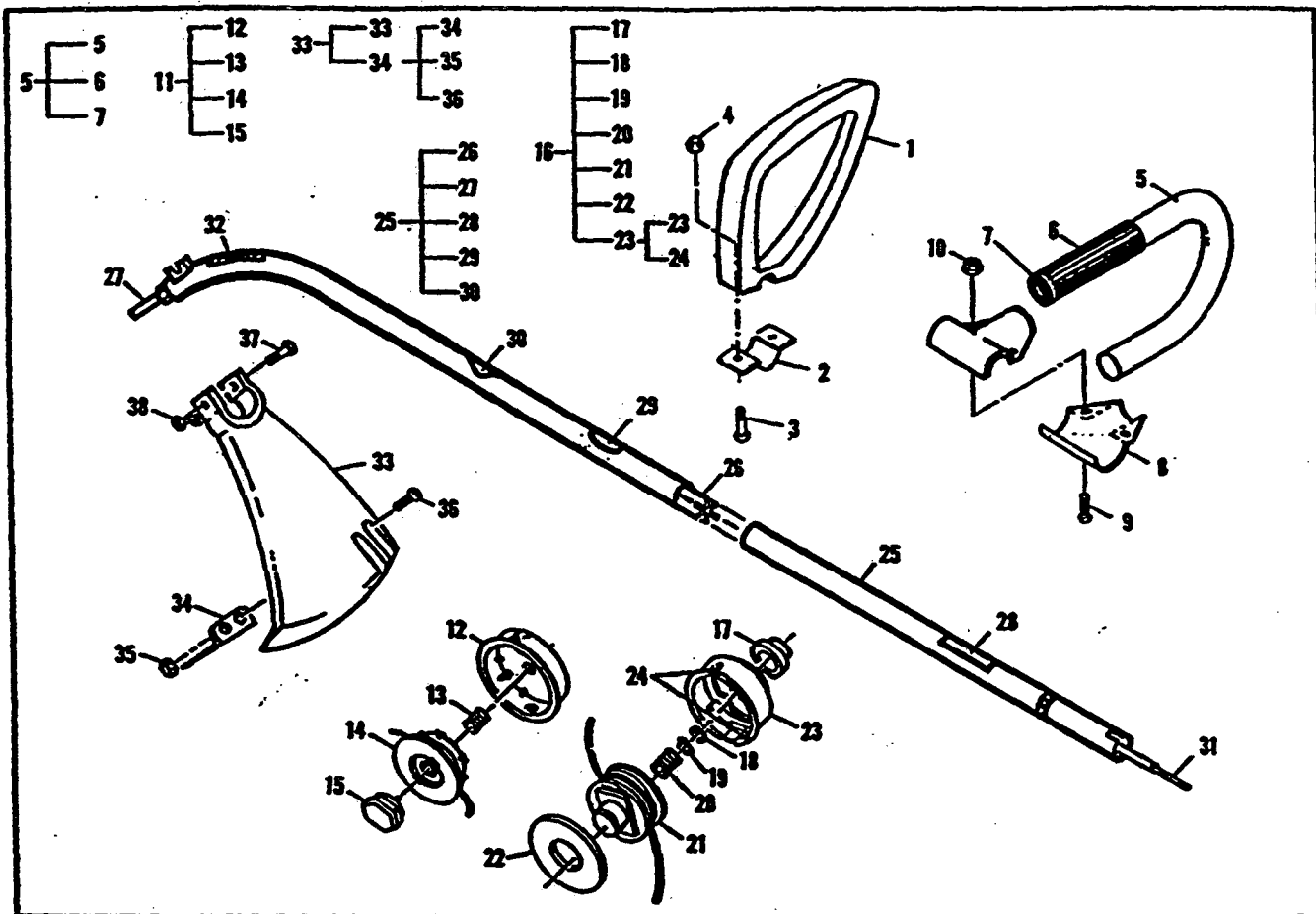


ITEM NO.	STK. CODE	PART NUMBER	DESCRIPTION	UNITS PER ASY.
	B	224033-02	Carburetor w/Choke Walbro WT-231A	
1			Ring, Screen Retainer	1
2			Ring, Shaft Retainer	1
3			Lever, Throttle	1
4			Cover, Metering Lever	1
5			Cover, Fuel Pump	1
6			Shaft Assembly, Throttle	1
7			Valve, Throttle	1
8			Shaft Assembly, Choke	1
9			Valve, Choke	1
10			Valve, Inlet Needle	1
11			Seat Assembly, Check Valve	1
12			Plug, Cup 5mm	1
13			Plug, Welch 5/16	1
14			Ball, Choke Friction	1
15			Gasket, Metering Diaphragm	1
16			Gasket, Fuel Pump	1
17			Diaphragm, Fuel Pump	1

ITEM NO.	STK. CODE	PART NUMBER	DESCRIPTION	UNITS PER ASY.
18		**	Diaphragm Assembly, Metering	1
19			Screw, Valve	3
20			Screw, Metering Lever Pin	1
21			Screw, Pump Cover	1
22			Screw, Idle Adjust Kit	1
23			Screw, Metering Cover	4
24			Spring, Choke Friction	1
25			Spring, Idle Needle	1
26			Spring, High Speed Needle	1
27			Spring, Throttle Return	1
28			Spring, Metering Lever	1
29			Needle, High Speed	1
30			Needle, Idle	1
31			Screen, Check Valve	1
32			Screen, Fuel Inlet	1
33			Pin, Metering Lever	1
34			Lever, Metering	1
	B	300457	Kit, Carburetor Repair	
	B	224460	Kit, Gasket/Diaphragm	

NOTE: Primer assembly is sold separately  
 \* CONTAINED IN KIT P/N 300457  
 \*\* CONTAINED IN KIT P/N 224460

**FIGURE 4 SHAFT/HANDLE AND CUTTER ASSEMBLIES**



ITEM NO.	STK CODE	PART NUMBER	DESCRIPTION	UNITS PER ASY.
1	A	217444	Handle-Data	1
2	A	217442	Clamp	1
3	A	218595	Screw HX M6x.50	2
4	A	215871	Nut-Hex M6x1.0	2
5	C	300540	Handle "J"/Grip Asy.	1
6	B	322139	.Grip	1
7	C	218328	.Plug	1
8	A	215337	Clamp-Handle	2
9	A	217935	Screw-TR 10-24x.50 TOR	2
10	A	218315	Nut	2
11	A	300651	String Head Assembly (MCM)	1
12	A	322025	.Housing/eyelet Asy. w/Collet	1
13	A	225206	.Spring, Left	1
14	A	300688	.Spool Assembly w/.095 Line	1
15	A	300736	.Knob Assembly, Flight	1
16	A	300110	Kt, String Head	1
17	A	224998	.Collar	1
18	B	224988	.Washer, Plain (.390dx.5/8)	1
19	A	222403	.Fling, Retaining	1
20	A	223740	.Spring, String Head	1
21	A	224268	.Spool w/.095 Line	1
22	A	224305	.Cover, String Head	1
23	A	224303	.Housing/Eyelet Assembly	1

ITEM NO.	STK CODE	PART NUMBER	DESCRIPTION	UNITS PER ASY.
24	B	223739	.Eyelet	2
25	C	300424	Housing Asy, Outer-48"	1
26	B	217368	.Sleeve	1
27		---	.Spindle	1
28	B	218295	.Decal, Warning	1
29	A	223407	.Decal, Eye/Ear Cover	1
30	C	211214	.Decal, Warning (15M)	1
31	A	215324	Shaft-Flex	1
	C	300429	Housing-Asy, Outer-44"	1
	B	218282	.Sleeve	1
		---	.Spindle	1
	B	218295	.Decal, Warning	1
	A	223407	.Decal, Eye/Ear Cover	1
	C	211214	.Decal, Warning (15M)	1
	A	218285	Shaft, Flex (44")	1
32	A	322099	Label, Debris Shield Warning	1
33	A	224062	Kt, Grass Shield	1
34	A	300626	.Kt, Knife	1
35	A	218682	.Nut-HX Lock 10-24	2
36	A	217935	.Screw-TR 10-24x.50 TOR	2
37	A	218595	Screw-HX M6x.50	1
38	A	215871	Nut-Hex M6x1.0	1

11400128-02 © 11400128-06 © 11400128-18  
 11400128-10 11400128-20  
 11400128-25 11400128-18

### CARBURETOR METERING LEVER ADJUSTMENT AND SETTINGS

<b>CARBURETOR INLET POP OFF - 16-29 psi</b>	<b>FUEL MIXTURE SETTINGS: LOW-1 1/8 OPEN, HI-1 1/4 OPEN</b>
<b>WALBRO - INLET</b>	<b>FLUSH WITH METERING CHAMBER FLOOR</b>
<b>ZAMA - INLET</b>	<b>FLUSH WITH TOP OF CARBURETOR BODY</b>

### ENGINE SPECIFICATIONS

<b>ENGINE TYPE</b>	<b>2 CYCLE SINGLE CYLINDER, AIR COOLED</b>	
<b>DISPLACEMENT</b>	28 cc	32 cc
<b>MAXIMUM HORSE POWER</b>	1.1 hp	1.3 hp
<b>BORE AND STROKE</b>	35 x 28.6 mm (1.37 x 1.12 in.)	38 x 28.6 mm (1.48 x 1.12 in.)
<b>CYLINDER TYPE</b>	<b>ALUMINUM</b>	
<b>DIRECT DRIVE IDLE RPM:</b>	3,000 - 3,500 rpm	
<b>CLUTCH DRIVE IDLE RPM:</b>	2,700 - 3,000 rpm	
<b>MAXIMUM RPM</b>	7,000 - 8,000 rpm	
<b>CLUTCH ENGAGEMENT</b>	3,300 - 3,500 rpm	
<b>CLUTCH TYPE</b>	<b>2 SHOE AUTO CENTRIFUGAL</b>	
<b>COMPRESSION (PSI)</b>	<b>AFTER 10 PULLS:</b>	28 cc - 80 lbs min. 32 cc - 90 lbs min.
<b>FUEL TYPE</b>	<b>UNLEADED - REGULAR GRADE</b>	
<b>FUEL TO OIL RATIO</b>	<b>40:1 McCULLOCH CUSTOM LUBRICANT</b>	
<b>FUEL TANK CAPACITY</b>	690 ml (23.3 oz.)	
<b>IGNITION SYSTEM</b>	<b>SOLID STATE</b>	
<b>SPARK PLUG GAP</b>	0.635 mm (0.025 in.)	
<b>SPARK PLUG TYPE</b>	<b>CHAMPION DUBJ</b>	
<b>FLY WHEEL TO IGNITION GAP</b>	0.254 mm - 0.304 mm (0.010 - 0.012 in.)	
<b>STARTER CORD</b>	<b>NYLON, TYPE 3.5</b>	

### SERVICE TOOLS

PART NUMBER	STOCK CODE	DESCRIPTION
215432	T	PRESSURE TEST TOOL
217720	T	KIT, TORX WRENCHES
222785	T	T-25 TORX DRIVE

### TORQUE SPECIFICATIONS

DESCRIPTION	TORQUE VALUE (In. lbs)	LOCTITE
CRANKCASE TO CYLINDER	55-60	YES
CRANKCASE TO PLASTIC PLUG	35-40	YES
INSULATOR TO CYLINDER	45-60	YES
SHROUD TO CRANKCASE	55-60	YES
IGNITION ASSEMBLY	45-60	YES
CARBURETOR	25-30	NO
STARTER HOUSING	30-35	NO
CLUTCH HOUSING	30-35	NO
CLUTCH ADAPTOR	140-145	NO
SPARK PLUG	120-125	NO