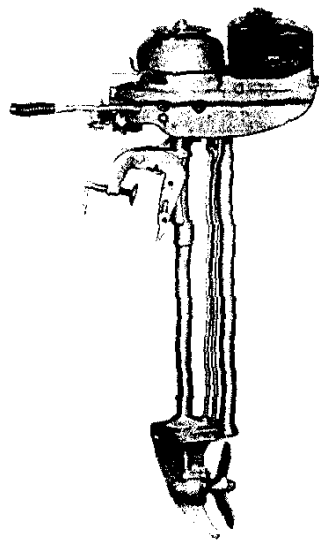


# NEPTUNE OUTBOARD MOTOR OPERATING INSTRUCTIONS

## AND REPAIR PARTS CATALOG

FOR



**MUNCIE GEAR WORKS, INC.**

P.O. Box 400  
Cordele, Georgia 31015

### CANADIAN PARTS DEPOT

Longwood Equipment Co.  
132 Railside Road  
Don Mills, Ontario  
Dealer Minimum \$10.00

**MODELS  
WC-1  
AND  
AA1-A  
1.7 HP**

### WARRANTY

The Neptune "Mighty Mite" is warranted free from any defects in workmanship and materials under normal use and service for a period of six months from the date of sale to the original user. Our obligation under this Warranty being limited to replacing or repairing at our factories in **Cordele, Georgia**, any part or parts returned to us and which our examination shall disclose to have been thus defective. All parts, assemblies and complete units must be returned with transportation charges paid, and we will not be liable for any labor or other expenses, damage or loss occasioned, or claimed to be occasioned by such defective parts.

Muncie Gear Works, Inc.

## How to Order Repair Parts

1. In ordering parts, write plainly, giving Model and Serial Number of motor (stamped on rope starter plate); then list parts wanted by part number and name.
2. To insure prompt delivery, always include remittance, including postage for carrying charges, and state sales tax. Stamps will be accepted as cash for an amount of \$1.00 or less.

A minimum charge of \$1.00 will be made for orders of less than that amount.

**PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE**

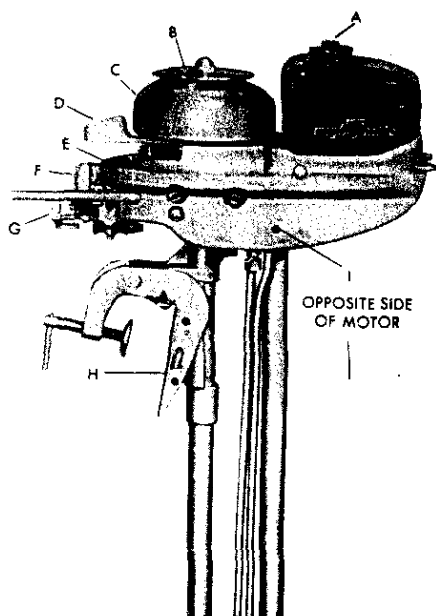


Fig. 1

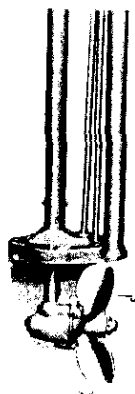


Fig. 2

### TO START MOTOR

**FUEL MIXTURE** — 1/2 pint Mobile Outboard, or equivalent, (SAE No. 40 Paraffine Base Oil) to one gallon REGULAR Gasoline. Mix well before pouring into tank.

**COLD MOTOR** — Open vent in center of Gas Tank Cap (A) Fig. 1. Open Gasoline Valve (I) Fig. 1. Advance Throttle (D) to **START** or slightly right of center. Open Main Adjusting Screw (G) to **RICH**. Attach Starting Rope. Depress Float Needle (E) until bowl starts to flood. Pull Starting Rope vigorously. Return Main Adjustment Screw (G) to **RUN** as soon as motor starts.

**WARM MOTOR** — With Air Vent (A) and Gasoline Valve (I) open, and Main Adjustment Screw at **RUN**, motor should start with one or two vigorous pulls of Starting Rope. If motor does not start promptly, Prime (or choke) by depressing float needle (E) as in cold motor procedure.

**FLOODED MOTOR** — If you believe motor is flooded, close Main Adjustment Screw to **LEAN**. Crank motor several times thus cleaning crankcase of excess fuel. When crankcase mixture is correct motor may run for a few seconds and stop. Restarting should be prompt after opening Main Adjustment Screw to **RUN** and again reanking.

### TO ADJUST MOTOR

Run warm motor at a good speed, then slowly close Main Adjustment Screw (G) to the right, or in as far as possible without reducing engine speed or to **RUN** position on panel. Decrease Throttle to left of center until stalling point of motor is approached. Now slowly close Idle Adjustment Screw (F) to right or in until motor slows down — then open until motor speed increases. When motor speed does not increase further a smooth and steady idle will be obtained and this will be the correct adjustment. Advance Throttle and run motor at a good speed for a few moments then recheck adjustments as outlined above.

AFTER CORRECT IDLE ADJUSTMENT HAS ONCE BEEN MADE, FURTHER CHANGES TO THIS ADJUSTMENT SHOULD NOT BE NECESSARY.

### MAGNETO SERVICE INSTRUCTIONS

It is recommended if there is an indication the magneto is causing trouble, a test be made before attempting to repair it.

The magneto can be checked by holding the spark plug cable about 1/8" away from a point on the frame of the engine. When the engine is cranked over in its usual way, a properly performing magneto should jump this gap.

If the engine misses at high speed, first check the Spark Plug (Spark Plug Gap .025" to .028") with the spark plug in good condition and properly adjusted, the magneto should fire a spark without missing while the spark cable is held 1/8" away from the spark plug terminal.

### ADJUSTMENT OF BREAKER POINTS

Turn the motor over until the breaker points are fully open and measure the point gap with a feeler gauge. The gap should be .020".

Loosen the tall anchor screw slightly. Adjust breaker point gap with off set screw. Then tighten anchor screw.

Be certain that condenser does not come in contact with breaker tension spring post. Magneto would be shorted out in such a case.

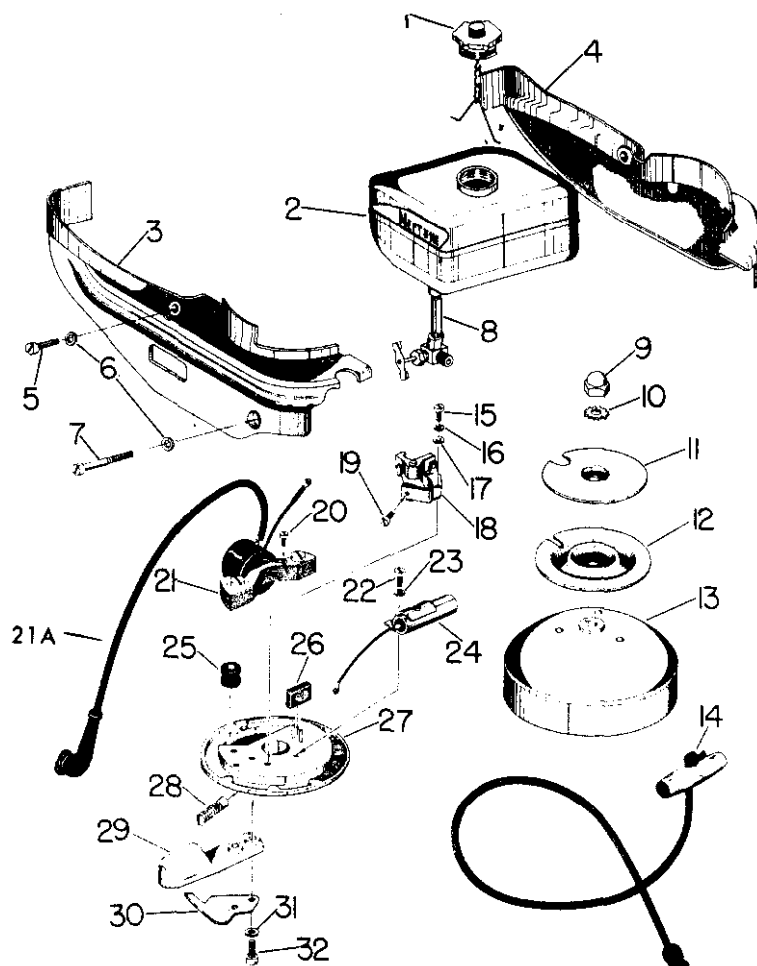
### LUBRICATION

**GEARS AND PROPELLER SHAFT** — Remove Plug (J) Fig. 2 and force a good non-channeling, water proof grease into housing. Check supply of grease in housing every 20 hours of operation.

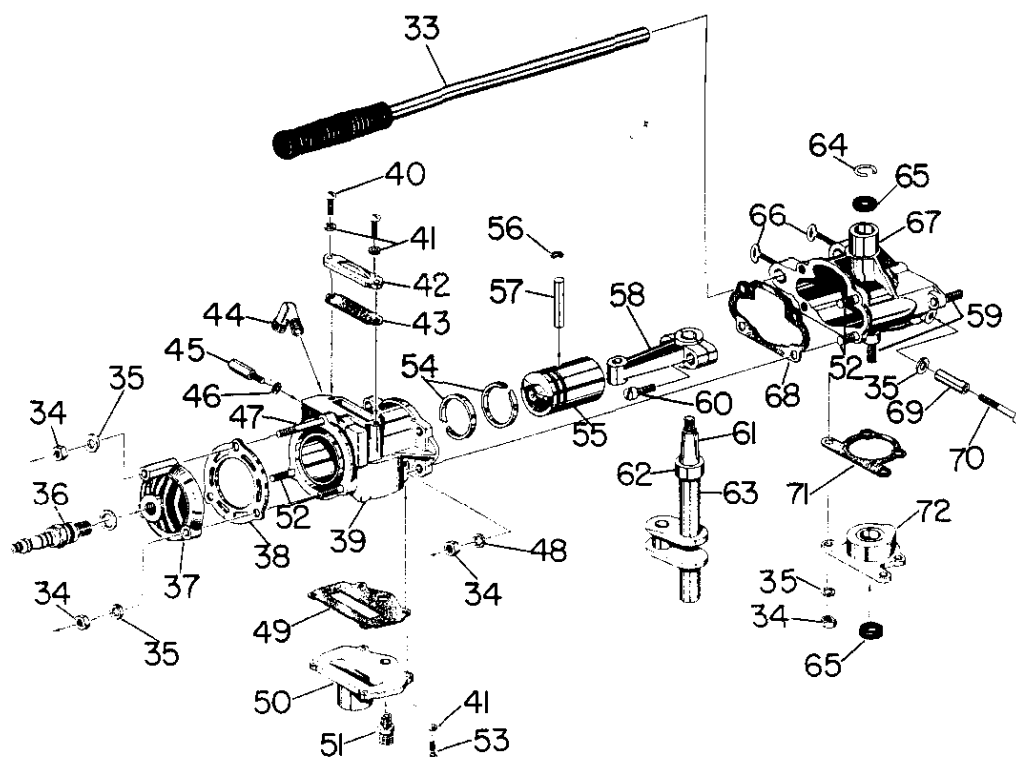
**POWERHEAD** — Oil mixed with gasoline lubricates all powerhead parts.

### CARE AND SERVICE HINTS

1. Do not allow motor head to be tipped below level of gear housing. Water will run into cylinder causing rust to form on cylinder walls and rings.
2. If motor is run in a small tank or barrel for any length of time, remove propeller to allow pump to function and prevent overheating.
3. After using motor in **SALT WATER** it should be thoroughly flushed in fresh water by running for a few minutes in fresh water.
4. Clean Spark Plugs after every ten hours of operation. (Spark Plug Gap .025" to .028")
5. Always strain fuel when filling tank.
6. Before storing your motor clean carburetor and tank of gasoline, water and dirt. Remove spark plug and pour oil in Cylinder. Rotate flywheel several times then replace spark plug.

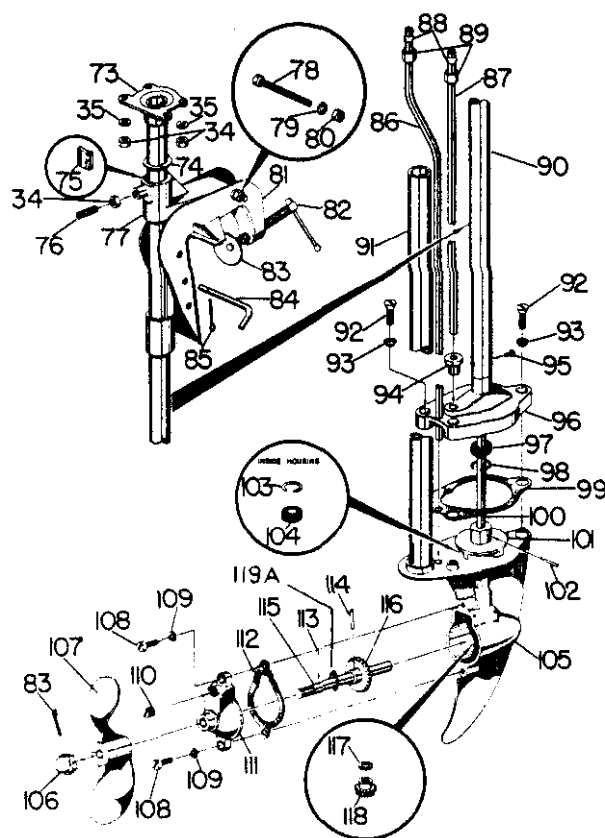


Sym.	Part No.	Description	Price	Sym.	Part. No.	Description	Price
1	AOB100-17	Filler Cap Assembly . . .	\$ 1.70	17	F-247	Fixed Contact Screw Plain Washer . . . . .	.20
2	OB100-16D	Gasoline Tank . . . . .	8.00	18	FG-626-B	Breaker Point Assembly .	2.80
3	1-207D	Cowl-Left Hand . . . . .	3.30	19	F-601	Breaker Connection Screw	.20
4	1-206D	Cowl-Right Hand . . . . .	3.30	20	F-422	Ground Terminal Screw .	.20
5	X2621AN	1/4"-20NC x 1 1/8" Long, Filister Head Screw . .	.10	21	FG-3872	Coil . . . . .	10.95
6	X2952G	1/4" Lockwasher . . . . .	.10		FG-3871	Core . . . . .	2.20
7	X2625AN	1/4"-20NC x 1 3/4" Long, Filister Head Screw . .	.15	21A	FG-2198E	Lead Wire . . . . .	.65
8	1-19A	Gasoline Tank Valve . . .	2.60	22	F-204	Condenser Screw . . . . .	.20
9	OB100-22	Flywheel Nut . . . . .	.30	23	F-147C	Condenser Screw Lockwasher . . . . .	.20
10	X2955CG	7 16" Shakeproof Washer . . . . .	.10	24	FG-3693	Condenser Assembly . . .	2.20
11	OB100-21 1/2	Nameplate . . . . .	.90	25	F-128	Lead Wire Grommet . . .	.20
12	OB100-21	Starter Plate . . . . .	.70	26	F-341B	Cam Wiper Felt . . . . .	.20
13	FG-3867	Flywheel . . . . .	14.90	27	FG-5062	Stator Plate . . . . .	8.75
14	AOB100-23	Starter Rope Assembly .	.30	28	FG-3588	Friction Plug Assembly . .	.70
15	F-132	Fixed Contact Screw . . .	.20	29	F-164	Magneto Handle . . . . .	.90
16	F-147C	Fixed Contact Screw Lockwasher . . . . .	.20	30	F-3874	Synchronizing Cam . . . .	1.75
				31	F-148	Handle Screw Lockwasher . . . . .	.20
				32	F-131	Handle Screw . . . . .	.20

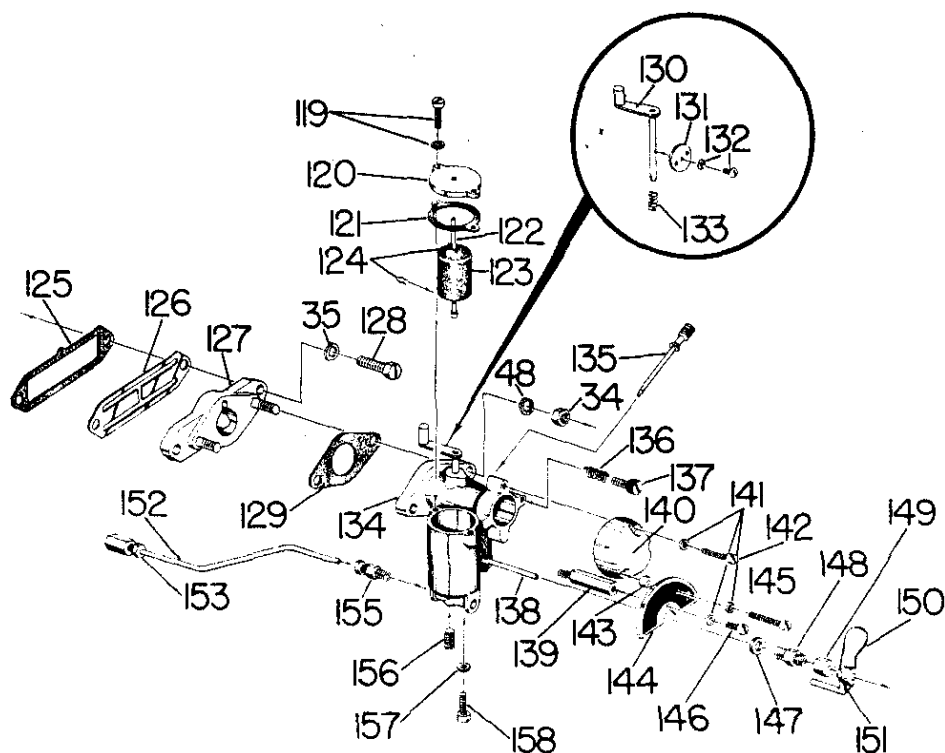


Sym.	Part No.	Description	Price	Sym.	Part No.	Description	Price
33	AOB-100-64	Steering Handle and Grip Assem. ....	.80	53	X2383N	#10-32NF x 5/8" Filister Head Mach. Screw ..	.10
34	X1716N	1/4-20NC Hex Nut .....	.10	54	1-11A	Piston Ring .....	.60
35	X2952AG	1/4" Lockwasher .....	.10	55	1-5A	Piston .....	5.70
36	A3-12A	J8J Spark Plug w/Washer .....	1.10	56	OB2-157	Piston Pin Lock Ring ...	.10
37	1-3 1/2 D	Cylinder Head .....	1.30	57	OB100-7A	Piston Pin .....	.40
38	1-4 1/2 D	Cylinder Head Gasket .	.50	58	AOB100-6D	Connecting Rod .....	3.70
39	1-4B	Cylinder .....	8.50	59	X8750N	1/4-20NC x 1 1/8" Stud..	.30
40	X2381CN	#10-32NF Round Head Machine Screw .....	.10	60	X2381AS	#10-32NF x 1/2" Filister Head Screw .....	.10
41	X2951G	#10 Lockwasher .....	.10	61	X6307	Crankshaft Key .....	.20
42	1-167B	Transfer Cover .....	.70	62	F3874	Cam for Model WC-1 ..	1.75
43	1-183A	Transfer Cover Gasket .	.10		F111E	Cam for Model AA1-A .	1.75
44	OB2-28A	Waterline Outlet Elbow.	.30	63	1-8A	Crankshaft .....	8.90
45	OB100-208	Cowl Spacer Stud .....	.50	64	OB17-85B	Packing Retainer .....	.10
46	X2856G	1/4" Flat Washer .....	.10	65	OB100-158A	Crankcase Packing ....	.40
47	X8749N	1/4-20NC x 1 1/8" Stud ..	.30	66	X3617X	Thumb Screw .....	.10
48	X2952AG	1/4" Shakeproof Lockwasher .....	.10	67	SOB100-1A	Crankcase w/Bushing ..	5.25
49	1-42B	Exhaust Cover Gasket ..	.10	68	OB100-49	Cylinder Gasket .....	.10
50	1-40A	Exhaust Cover .....	1.40	69	OB100-209	Cowl Spacer .....	.50
51	OB4-31	5/16" Compression Connector .....	.20	70	X2625AN	1/4-20NC x 1 1/4" Filister Head Screw for Cowl	.10
52	X3729N	1/4-20NC x 15/16" Stud	.30	71	OB100-13	Crankcase Gasket .....	.10
				72	SOB100-2A	Lower Adapter & Bushing .....	2.80
					OB5-133	Spark Plug Cap .....	.50
						(Not Shown)	

Gaskets — Complete Set ..... \$1.30



Sym.	Part No.	Description	Price	Sym.	Part No.	Description	Price
73	1-53A	Upper Stem Adapter (Not Furnished Separately See Sym. 90) .....		† 95	X4136C	#10-24NC Self-Tapping Screw .....	.10
† 74	1-63A	Washer for Steering Stem (Brass) .....	.15	† 96	SAOB100-52A	Impeller Housing .....	2.70
† 75	OB100-122	Stem Clamp .....	.15	† 97	OB100-106A	Drive Shaft Packing (Upper) .....	.40
† 76	X2511-ACN	Set Screw for Stem Clamp .....	.10	† 98	OB100-86A	Packing Retainer .....	.10
† 77	OB100-120	Swivel Bracket .....	2.10	99	OB100-77B	Impeller Housing Gasket .....	.10
78	X820N	5 16"-18NC x 2 1/4" Hex Head Bolt .....	.10	100	1-71A	Drive Shaft .....	2.60
79	X2953G	5 16" Lockwasher .....	.10	101	OB100-76A	Water Impeller .....	1.00
80	X1702N	5 16"-18NC Hex Head Nut .....	.10	102	P2001	Pin for Impeller .....	.10
* 81	OB100-110	Stern Bracket .....	2.80	103	OB100-85A	Packing Retainer .....	.10
* 82	A1-115A	Clamp Screw & Handle Assembly .....	.90	104	OB100-62A	Drive Shaft Packing (Lower) .....	.40
* 83	OB1-116B	Clamp Screw Foot .....	.10	† 105	SAOB100-90	Propeller Shaft Housing .....	4.70
* 84	OB100-112	Thrust Bolt .....	.60	106	OB100-100	Propeller Nut .....	.50
* 85	X2003G	Cotter Pin .....	.10	107	OB100-99	Propeller .....	1.50
86	1-37A	Outlet Water Line .....	.85	† 108	X2417AN	1/4-20NC x 1/2" Filister Head Mach. Screw ..	.10
87	1-36A	Inlet Water Line .....	.85	† 109	X2963G	1/4" Special Lockwasher ..	.10
88	OB2-33A	5/16" Compression Sleeve .....	.10	† 110	X1510NB	1/8" Pipe Plug .....	.10
89	OB2-34A	5 16" Compression Nut .....	.20	† 111	OB100-94	Propeller Shaft Housing Cap .....	1.60
† 90	S1-51A	Steering Stem w Upper Adapter ...	4.00	† 112	OB100-104	Propeller Shaft Housing Cap Gasket .....	.10
91	1-43A	Muffler .....	1.00	113	X1931B	Shear Pin .....	.10
92	X2420FN	Oval Countersunk Screw .....	.10	† 114	X1927	Pin for Propeller Shaft Gear .....	.10
93	X2952BG	Countersunk Shakeproof Washer .....	.10	† 115	OB100-91	Propeller Shaft .....	1.50
† 94	OB100-37	Water Inlet Bushing ...	.10	† 116	OB100-92	Propeller Shaft Gear ...	3.40
*	AOB100-110	Stern Bracket Assembly Complete .....	4.50	† 117	OB100-73	Thrust Washer Pinion ...	.40
†	A1-51A	Upper Stem Assembly ..	9.90	† 118	OB100-72	Drive Pinion Gear .....	3.70
				† 119A	OB100-103	Thrust Washer .....	.30
				†	AOB100-90	Propeller Housing Complete Less Propeller .....	16.10



Sym.	Part No.	Description	Price	Sym.	Part No.	Description	Price
119	08315	Float Bowl Cover Screw and Lockwasher . . . .	.20	142	01108	Air Deflector Screw (Short) . . . . .	.20
120	06882	Float Bowl Cover . . . . .	.80	143	06975	Air Deflector Screw Spacer . . . . .	.35
121	07198	Float Bowl Cover Gasket . . . . .	.35	144	1-1648	Carburetor Dial Plate . . . . .	.30
*122	06941	Inlet Valve . . . . .	2.60	145	06607	Air Deflector Screw (Long) . . . . .	.20
123	08215	Float . . . . .	1.00	146	X2359AN	#8-32NC x 5/16" Filister Head Mach. Screw . . . . .	.10
*124	05425	Float Retainer Clip . . . . .	.20	147	0676	Main Adjustment Screw Gland Gasket . . . . .	.20
125	1-154A	Intake Manifold Gasket . . . . .	.10	148	0702	Main Adjustment Screw Gland . . . . .	.60
126	1-149B	Intake Manifold Reed . . . . .	.35	149	0703	Main Adjustment Screw Packing Nut . . . . .	.35
127	1-153A	Intake Manifold w/ Studs . . . . .	1.40	150	06957	Main Adjustment Lever . . . . .	1.40
128	X826SN	1/4-20NC x 3/4" Slotted Head Cap Screw . . . . .	.20	*151	0120	Main Adjustment Lever Retaining Screw . . . . .	.20
129	0B2-15	Carburetor Gasket . . . . .	.10	152	1-29B	Gasoline Line . . . . .	.25
*130	08225	Throttle Shaft & Lever . . . . .	1.80	153	B1-28	Gasoline Line Coupling . . . . .	.80
*131	07961	Throttle Shutter . . . . .	.35	155	B1-30	Gasoline Line Connector . . . . .	.70
*132	08317	Throttle Shutter Screw & Lockwasher . . . . .	.20	*156	02395	Inlet Valve Channel Plug Screw . . . . .	.35
*133	06634	Throttle Return Spring . . . . .	.35	157	0164	Float Bowl Drain Screw . . . . .	.20
134	08226	Carburetor Body . . . . .	10.00	158	0648	Float Bowl Drain Screw Gasket . . . . .	.20
135	06905	Idle Tube . . . . .	1.20	*	07082	Gasket & Packing Set . . . . .	1.00
136	05725	Idle Adjustment Screw Spring . . . . .	.20	*	08270	Repair Parts Kit . . . . .	6.80
*137	06910	Idle Adjustment Screw . . . . .	.60	1-14A		Carburetor Complete . . . . .	17.50
*138	06974	Main Adjustment Screw . . . . .	.60				
139	2-178A	Dial Plate Support . . . . .	.40				
140	06970	Air Deflector . . . . .	1.60				
141	0992	Air Deflector Screw Lockwasher . . . . .	.20				