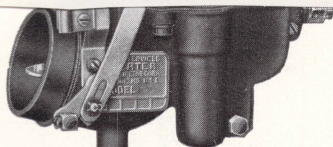
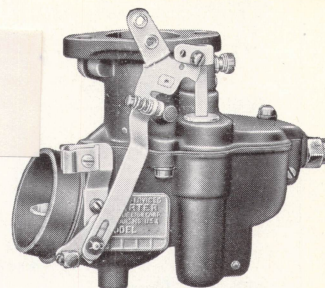


Rebuild 4A2 to 4A3
Use 12-166 123-18
25-48S 149-22S
149-23S

Out off pump
Metering screw
159-11



Model 4A2



Model 4A3

Price List \$12.00

For Plymouth 4-cylinder engine;
3 5/8 inch bore, 4 3/4 inch stroke

(Refer to inspection tag on carburetor as specifications vary in important respects)

Model 4A2 on Cars Nos. 1680001 to 1708785; Motors Nos. PB1001 to PB32668
Model 4A3 on Car No. 1708786 and higher; Motor No. PB32669 and higher

CARBURETOR SPECIFICATIONS

Dimensions: Flange size, 1 1/4 in. Throttle bore, 1-7/16 in.

Float Setting: Top of float flush to 1/32 in. (.0 to .79 mm) below top surface of lower body.

Vent: (To Float Chamber) Outside. Size: No. 30 (3.26 mm) drill.

Gasoline Intake Needle: Triangular, horizontal. No. 38 (2.58 mm) drill in needle seat.

Idle Jet Tube: Model 4A2: Jet size, .0256 to .0275 in. (.65 to .70 mm) drill. Model 4A3: Jet size, .0236 in. (.60 mm) drill.

Air Bleed: Through venturi, to idle passage, .085 to .087 inch diameter (2.15 to 2.20 mm) drill.

Idle Ports: Lower port size: .062 to .064 in. (1.58 to 1.63 mm) dia. Top of port located .005 to .009 in. (.13 to .23 mm) below lower edge of valve. Upper port size: .053 to .057 in. (1.35 to 1.45 mm) dia. (for idle adjustment screw).

Set Idle Adjustment Screw: 1/2 to 1 1/4 turns open. For richer mixture turn screw out. Do not idle engine below 300 rpm. or 6 miles per hour.

Main Metering Screw: Calibrated to flow 222 C. C. per min. (Do not gauge for size. If in doubt, replace with new part.)

Nozzle: Model 4A2, size No. 30 (3.26 mm) drill. Model 4A3, No. 33 (2.87 mm) drill.

Accelerating Jets: 2—.0394 in. (1.00 mm) drill 1/16 in. (1.59 mm) from shoulder; 1—.051 in. (1.3 mm) drill 3/8 in. (9.52 mm) from shoulder; 1—.063 in. (1.6 mm) drill 23/32 in. (18.26 mm) from shoulder; 1—.051 in. (1.3 mm) drill 1-1/16 in. (26.99 mm) from shoulder.

Air Bleed to Nozzle: Size: .0275 to .0295 in. (.70 to .75 mm) drill.

Step-up Jet: (Power Orifice) Model 4A2, size .0197 in. (.50 mm) drill. Model 4A3, .0256 in. (.65 mm) drill.

Main Venturi: 1 inch I. D.

Accelerating Pump: Type, low pressure, delayed action. Stroke: Summer setting (inner hole, short stroke) 9/16 in. (14.29 mm). Winter setting (outer hole, long stroke) 1 in. (25.40 mm).

Pump intake ball check: size 1/8 in. (3.17 mm).

Model 4A2, pump (discharge) metering screw: Jet size No. 52 (1.61 mm) drill.

Model 4A3, pump discharge jet (in pump valve cage assembly) No. 52 (1.61 mm) drill size.

FOR READINGS BELOW, VIEW CARBURETOR FROM SIDE OPPOSITE AIR INTAKE

Choker: Butterfly type, with compensating air valve. Lever on left side.

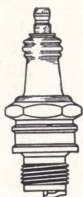
Throttle Lever: Adjusting—On left side, length 1-11/32 in. (34.13 mm), when open, points up. Loose lever—on right side.

Tube Clamps: On air intake and under body attaching screw.

MOTOR TUNE-UP—PLYMOUTH

Be Accurate! Always Use Feeler Gauges!

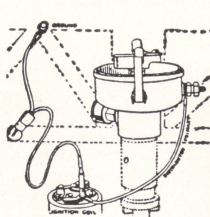
Caution: Change worn or leaky flange gaskets. Tighten manifold bolts and test compression before adjusting carburetor.



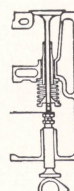
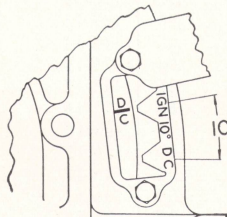
Spark
Plug Gap
.025"



Set
Breaker Points
.020"

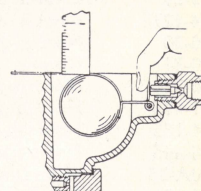


Use Timing Light—Time by Flywheel Mark
Breaker Points to Start to Separate 10° or .041"
Before Top Dead Center with Spark Fully Advanced



Valve Clearance
With Motor at
Normal Operating
Temperature
(Hot)

Set Valves
Intake .005"
Exhaust .007"



Correct Float Level
Flush with to 1/32"
below edge of Casting
(Remove Gasket)

CARBURETOR ADJUSTMENTS

To Secure a Good Idle: Set throttle lever adjusting screw so motor runs approximately 300 rpm. Then set idle adjustment screw so motor fires evenly. Correct setting will be found between 1/2 and 1 1/4 turns open. A richer mixture is obtained by backing out adjustment screw—a leaner mixture by turning screw in. If motor stalls while idling, remove idle passage tube and idle jet tube and clean with compressed air.

To Improve Acceleration: Examine pump link setting: For winter driving, link screw should be set in outer hole, giving long stroke; for hot weather, in high altitudes, pump link should be set in inner hole, giving short stroke. If this does not give desired results, the main metering jet, pump metering jet, check valve assembly and pump valve assembly should be removed and cleaned with compressed air.

If Motor Loads—Check Float Level: Wear on lip of float lever will raise float level from factory setting, causing carburetor to load up. To

lower float level, bend lip of float lever toward needle. To raise float level, bend lip away from needle. A very slight bend is sufficient. Be sure to bend lip of float, not bracket.

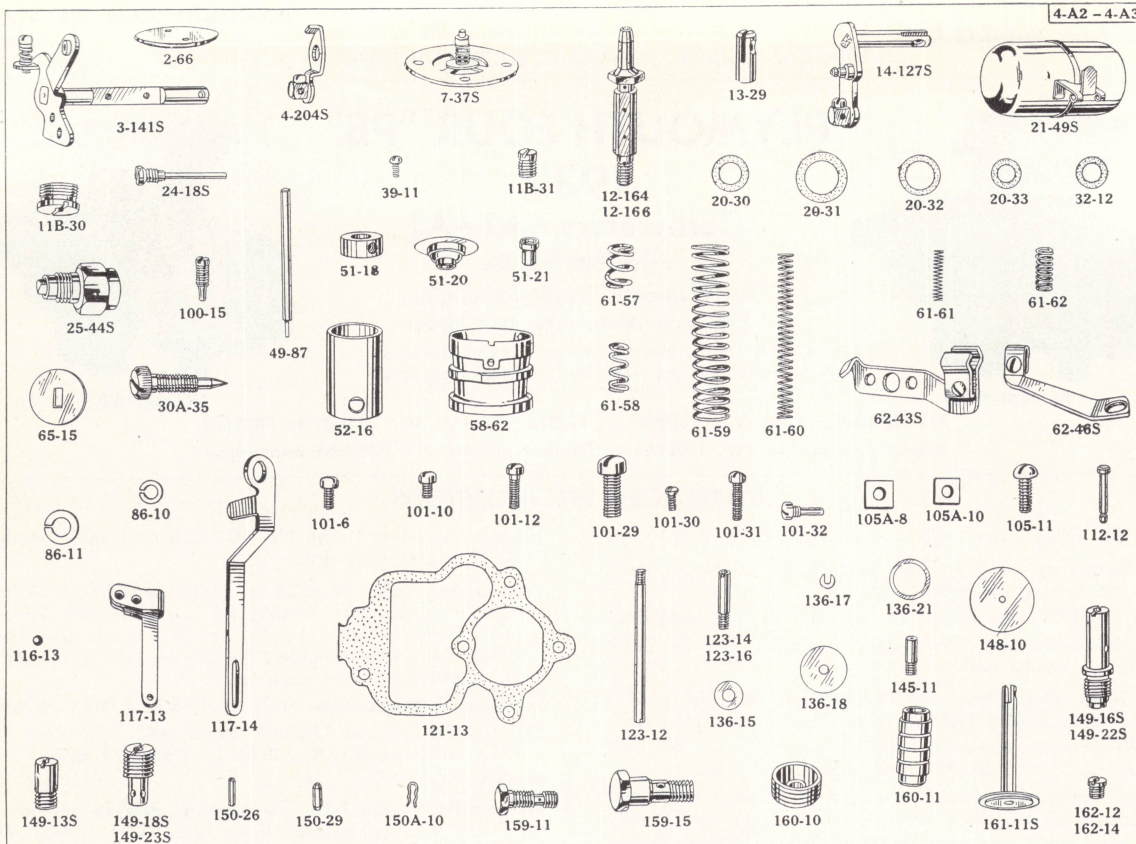
Economy: (a) Maximum economy is secured only when breaker points, spark plugs, valves and motor timing are set to manufacturer's specifications.

(b) Float level must be set as instructed above.

(c) Step-up valve cage assembly should be examined. Ball check in this assembly must seat and move freely. When reassembling valve cage must be screwed in tight against seat.

(d) Step-up push rod must move freely in upper and lower guides.

(e) Step-up piston in upper casting should not bind and must be free from dirt.



Plymouth B & B Carburetors—Models 4A2 and 4A3—List Price \$12.00

WHEN SERVICING, USE GASKET ASSORTMENT No. 104—List Price \$0.30

Parts Price List

Part No.	NAME	List Price	Part No.	NAME	List Price
2-66	Throttle valve	\$.20	101-10	Wire clamp screw	.05
3-141S	Throttle shaft and lever assembly	.60	101-12	Choke tube clamp screw	.05
4-204S	Throttle lever assembly (loose)	.30	101-29	Body attaching screw	.05
7-37S	Choker valve assembly	.50	101-30	Choke valve screw	.05
11B-12	Rivet plug	.02	101-31	Throttle lever adjusting screw	.05
11B-26	Rivet plug	.02	101-32	Pump link screw	.05
11B-30	Step-up piston plug	.10	105-11	Throttle tube clamp screw	.05
11B-31	Idle hole plug	.10	105A-8	Tube clamp nut	.05
12-164	Nozzle (4A2)	.60	105A-10	Choke tube clamp nut	.05
12-166	Nozzle (4A3)	.60	112-12	Choke air valve stem	.05
13-29	Choker shaft (stub)	.15	116-13	Step-up ball	.02
14-127S	Choker assembly with clamp and screw	.40	117-13	Pump link	.15
20-30	Nozzle gasket	.05	117-14	Choker link	.10
20-31	Needle seat gasket	.05	121-13	Body gasket	.10
20-32	Metering screw gasket	.05	123-12	Idle passage tube	.10
21-49S	Float and lever assembly	.80	123-14	Idle orifice tube (4A2)	.20
24-18S	Float lever pin and plug assembly	.10	123-16	Idle orifice tube (4A3)	.20
25-44S	Needle and seat assembly	.80	136-15	Choker link washer	.02
30A-35	Idle adjustment screw	.30	136-17	Choker stem washer	.02
32-12	Pump rod gasket	.05	136-18	Choker air valve washer	.03
39-11	Throttle valve screw	.05	136-21	Plug washer	.01
49-87	Step-up push rod	.10	145-11	Vent tube	.05
51-18	Throttle shaft collar	.15	148-10	Choke air valve	.10
51-20	Pump collar	.10	149-13S	Check cage valve assembly	.30
51-21	Choke air valve collar	.10	149-16S	Step-up valve assembly (4A2)	.40
52-16	Pump sleeve	.20	149-18S	Pump valve cage assembly (4A2)	.30
58-62	Venturi	.40	149-22S	Step-up valve assembly (4A3)	.40
61-57	Idle adjustment screw spring	.05	149-23S	Pump valve cage assembly (4A3)	.30
61-58	Throttle lever adjusting screw spring	.05	150-26	Pump collar pin	.02
61-59	Pump spring	.10	150-29	Venturi pin	.02
61-60	Step-up piston spring	.05	150A-10	Pin spring	.01
61-61	Step-up spring	.05	159-11	Pump metering screw (4A2 only)	.20
61-62	Choke air valve spring	.05	159-15	Main metering screw	.30
62-43S	Choke tube bracket assembly	.25	159-16	Main metering screw, one size lean	.30
62-46S	Tube clamp assembly	.25	159-17	Main metering screw, two sizes lean	.30
65-15	Pump link cover plate	.02	160-10	Pump piston	.40
86-10	Tube clamp screw lock washer	.01	160-11	Step-up piston	.20
86-11	Body screw lock washer	.01	161-11S	Pump rod plate and rod assembly	.30
100-15	Collar screw	.05	162-12	Step-up jet (power orifice, 4A2)	.10
101-6	Choke bracket attaching screw	.05	162-14	Step-up jet (power orifice, 4A3)	.10

List price of \$3.00 per 100 applies to parts listed at \$0.05 each.

List price of \$1.75 per 100 applies to parts listed at \$0.03 each.

List price of \$1.25 per 100 applies to parts listed at \$0.02 each.

List price of \$0.50 per 100 applies to parts listed at \$0.01 each.