HOLLEY 2-BARREL MODEL 2209

1965 MODELS

RAMBLER CLASSIC & AMBASSADOR	Holley Carburetor No. Synchro-mesh	Auto. Trans.
287" V8 (Early Cars)	2699A	2698A
(Later Cars)	3218A	3217A

1966 MODELS

RAMBLER AMERICAN

290" V8 (9.0-1 Compr.)		
(No Air Guard)	3308-1A	3307-1A
(With Air Guard)	3484-1A	3483-1A

RAMBLER CLASSIC, MARLIN, & AMBASSADOR

287" & 327" V8		
(No Air Guard)	3305A	3304A
(With Air Guard)	3388A, -1A	3388A, -1A

1967 MODELS

RAMBLER AMERICAN

290" 200 HP V8		
(No Air Guard)	3308-1A	3307-1A
(With Air Guard)	3484-1A	3483-1A

RAMBLER REBEL, MARLIN, & AMBASSADOR

290" 200 HP V8		
(No Air Guard)	3308-1A	3307-1A
(With Air Guard)	3484-1A	3483-1A
343" 235 HP V8		
(No Air Guard)		3307-1A
(With Air Guard)		3905A

►CHANGES, CAUTIONS, CORRECTIONS

►*AIR-GUARD" CARBURETOR NOTE:* These carburetors are used on engines with "Air-Guard" exhaust emission control system and are special units with different jet calibrations and adjustment specifications.

►*1966 RAMBLER V8 DYING AFTER COLD START CORRECTION (Cars with Air Guard System & Holley 3388 Carb.):* If engine dies immediately after cold start, check and adjust Choke Qualifying Setting. See *Adjustments*.

►*1967 290" V8 ENGINE SURGE AT CONSTANT THROTTLE OR ON LIGHT ACCELERATION CORRECTION (Air Guard Engines with Holley 3483-1A or 3484-1A Carbs.):* Caused by carburetors operating at lean limit of flow curve. If not corrected by complete tune-up, correction of all vacuum leaks, and checking of manifold heat control valve and crankcase ventilating valve; install all parts furnished in Carburetor Kit, Part No. 3208792, and make changes as follows:

Main Metering Jets - Install two No. 58 jets (in kit).

Idle Feed Restrictions - Enlarge both restrictions using drill furnished in kit (coat drill with heavy grease to pick up drill chips, thoroughly clean out passages).

Adjustments - Check Choke Qualifying adjustment and adjust Idle Speed & Mixture. See *Adjustments*.

CARBURETOR IDENTIFICATION

Holley carburetor number (and American Motors part number) is stamped on front of fuel bowl. *NOTE* - Complete Holley number (Example R-3305-A) may not appear on carburetor ("R" indicates carburetor, "A" indicates assembly). A suffix number ("-1" etc.) indicates modifications in basic design or specifications.

DESCRIPTION

Dual downdraft type with piston type accelerating pump and vacuum controlled power valve. Automatic choke is located in recess in throttle valve body and linked to choke valve lever by an offset rod. A slow-closing throttle dashpot is used on automatic transmission carburetors. These carburetors have differences in design as follows:

1965-66 Carburetors - A choke vacuum piston (for initial choke opening) is located within choke housing in carburetor throttle body and engages the choke unloader lever.

1966 Model 3308-1 & All 1967 Carburetors - A vacuum diaphragm unit mounted on carburetor air horn and linked to choke shaft lever is used to provide initial choke opening (vacuum piston in choke housing not used). Diaphragm unit has special adjustment. See *Adjustments*.

ADJUSTMENT

Idle Speed & Mixture

Adjust idle speed to correct engine RPM with engine at normal operating temperature, choke valve wide open, and fast idle inoperative. Adjust both idle mixture screws equally by turning screws out until engine speed begins to drop off, then turn screws in to lean the mixture until maximum engine speed is obtained and continue to turn screws in until engine speed begins to drop off due to lean mixture, finally turn screws out just enough to secure maximum engine idle speed (this will assure a "lean as possible" setting). Readjust idle speed. If necessary to change idle speed more than 50 RPM, repeat idle mixture adjustment.

Fast Idle Speed (On Engine)

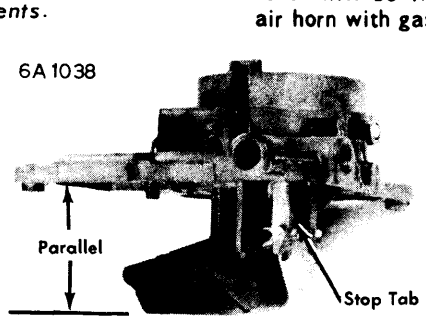
With tab on throttle lever on correct step of fast idle cam as listed in specifications, engine fast idle RPM should be correct (see Specifications). Adjust by bending throttle lever tab.

Float Level

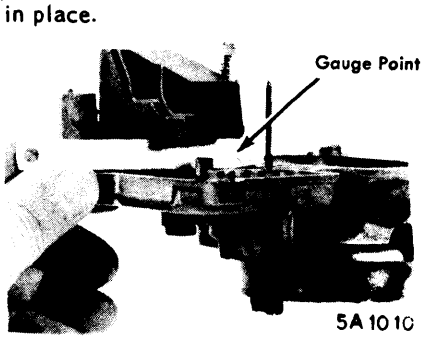
Dry Float Setting - Remove bowl cover and air horn assembly. With gasket in place on cover, invert assembly and measure from float to gasket surface (see illustrations and Specifications). Adjust by bending float tab which contacts inlet needle. *CAUTION - Do not allow tab to contact needle when making adjustment (needle has Viton tip (compressing tip will cause false setting).*

Wet Float Setting - With correct dry float setting, fuel level will be 1/2" (all carburetors) below bottom edge of air horn with gasket in place.

FAST IDLE ADJUSTMENT



FLOAT DROP ADJUSTMENT



FLOAT LEVEL ADJUSTMENT

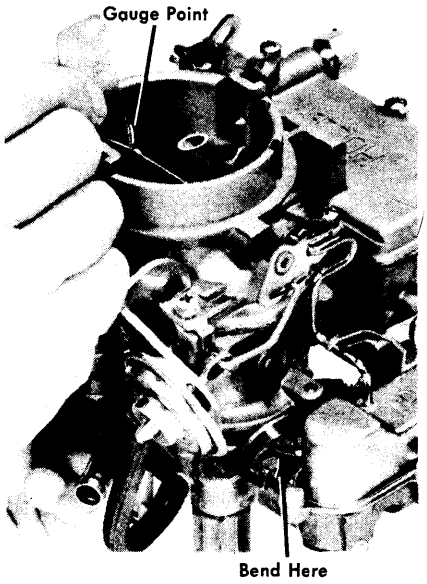
HOLLEY 2-BARREL MODEL 2209 (Continued)

Float Drop

Hold bowl cover and float assembly upright with float hanging free. Bottom of float should be parallel with bowl cover surface. Adjust by bending tab behind float hinge pin.

Unloader

Hold throttle valve in wide open position and rotate choke valve toward closed position. Clearance between top edge of choke valve and air horn wall on side opposite vent tube should be as shown in specifications. Adjust by bending tab on fast idle lever (see illustration).



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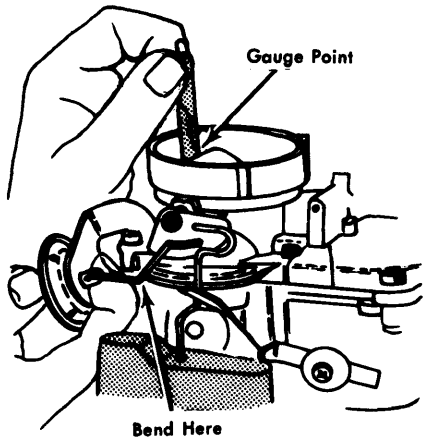
UNLOADER ADJUSTMENT

Choke Diaphragm (Choke Qualifying Adjustment)

Carburetors with Choke Diaphragm Unit - With throttle valves closed and throttle lever tab on high step of fast idle cam, depress choke diaphragm stem until it bottoms (or apply 15" Hg. minimum vacuum to diaphragm unit), close choke valve lightly to remove slack from linkage. Measure clearance between upper edge of choke valve and air horn wall on side opposite vent tube (see Specifications). If clearance not correct, adjust by bending diaphragm connecting link (see illustration).



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CHOKE QUALIFYING ADJUSTMENT

CARBURETOR ADJUSTMENT SPECIFICATIONS

Holley Carburetor Number	Idle Speed (Engine RPM) Hot	Idle Speed (Engine RPM) Fast	Initial Idle Mixture	Float Level Setting	Fuel Level Setting	Bowl Vent Setting	Unloader Setting	Choke Qualifying Setting	Auto Choke Setting
2698	500 ④	1800 ②	½-1½	11/32"	½"	5/64"	3/16"	.....	Index
2699	550 ①	1800 ②	½-1½	11/32"	½"	5/64"	3/16"	.....	Index
3217	500 ④	1800 ②	½-1½	11/32"	½"	5/64"	3/16"	.....	Index
3218	550 ①	1800 ②	½-1½	11/32"	½"	5/64"	3/16"	.....	Index
3304	550 ④	1800 ②	½-1½	11/32"	½"	5/64"	3/16"	.....	Index
3305	550 ①	1800 ②	½-1½	11/32"	½"	5/64"	3/16"	.....	Index
3307-1	600 ⑥	1650 ③	½-1½	11/32"	½"	5/64"	3/16"	3/16"	1 Lean
3308-1 ⑦	550 ⑤	2000 ②	¾-1½	11/32"	½"	1/16"	3/16"	13/64"	1 Lean
3308-1 ⑧	600 ⑥	1650 ③	½-1½	11/32"	½"	5/64"	3/16"	3/16"	1 Lean
3388	575 ⑤	1800 ②	½-1½	11/32"	½"	5/64"	3/16"	11/64"	Index
3483-1	600 ⑥	1600 ③	½-1½	11/32"	½"	5/64"	3/16"	13/64"	1 Lean
3484-1	600 ⑥	1400 ③	½-1½	11/32"	½"	5/64"	3/16"	11/64"	1 Rich

① - Synchro-mesh & Overdrive Trans. 500 RPM Air Conditioned Cars (Air Cond. ON)
② - Fast idle screw on high step of fast idle cam.
③ - Fast idle screw on second step of fast idle cam.
④ - Auto. Trans. Cars (Transmission in Neutral). 500 RPM Air Conditioned Cars (Air Cond. ON).
⑤ - Synchro-mesh & Auto. Trans. Cars (In Neutral). 500 RPM Air Conditioned Cars (Air Cond. ON).
⑥ - Synchro-mesh & Auto. Trans. Cars (In Neutral). Air Conditioner ON (when used).
⑦ - 1966 American V8 models.
⑧ - 1967 All Models with 290" V8 Engine.

HOLLEY 2-BARREL MODEL 2209 (Continued)

Automatic Choke

See specifications. To adjust, loosen clampscrew in slot in thermostatic coil shaft plate and rotate plate until index mark on plate is centered on scale on throttle body ("centered" setting). Do not vary choke setting more than 2 graduations from specified setting.

Bowl Vent

1965 Carburetors - With throttle valves closed in curb idle position, use gauge of correct size (see Specifications) to measure vent valve opening (see illustration). If opening not correct, adjust by turning adjusting screw on top of bowl vent assembly in or out as necessary.

1966 & Later Carburetors - With throttle valves closed in curb idle position, use gauge of correct size (see Specifications) to measure clearance between lower side of bowl vent washer on pump plunger and valve seat on bowl cover. If clearance not correct, adjust by sliding bowl vent clip up or down on pump plunger shaft as necessary.

Accelerating Pump

1965-66 Carburetors - Throttle lever has two holes for pump link engagement. Inner (No. 1) hole provides minimum pump discharge, outer (No. 2) hole provides maximum pump discharge. Standard settings for these carburetors are listed below.

1966 No. 3308-1A & All 1967 Carburetors - Pump link has two holes at lower end for throttle lever connector pin engagement. Inner hole (No. 1) provides maximum pump discharge, outer hole (No. 2) provides leaner pump discharge. Standard settings for these carburetors are listed below.

Standard Pump Setting

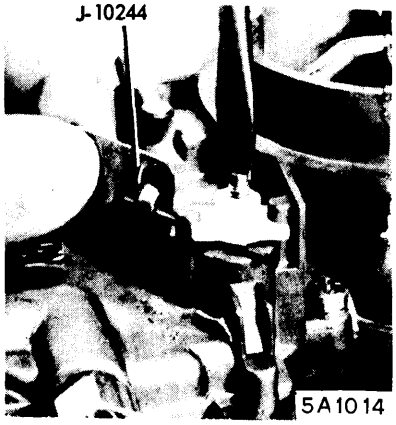
Carburetor	Pump Link Connection
2699A, 2968A, 3217A, 3218A	No. 1 (Inner)
3305A, 3307-1A, 3308-1A, 3388A & -1A	No. 1 (Inner)
3304A	No. 2 (Outer)
3483-1A, 3484-1A	No. 1 (Inner)

Dashpot

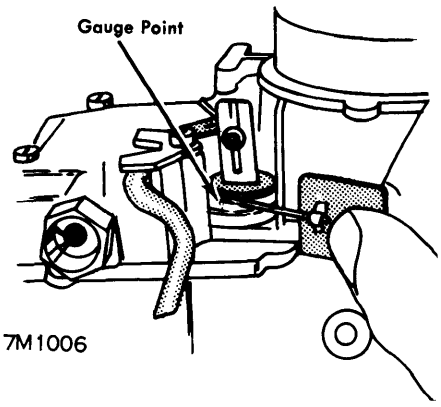
With throttle valves closed in curb idle position, depress dashpot stem fully and measure clearance between end of stem and tab on throttle lever. If clearance not correct (see Specifications below), adjust by loosening dashpot mounting locknut and turn dashpot in or out of mounting bracket as required.

Dashpot Setting

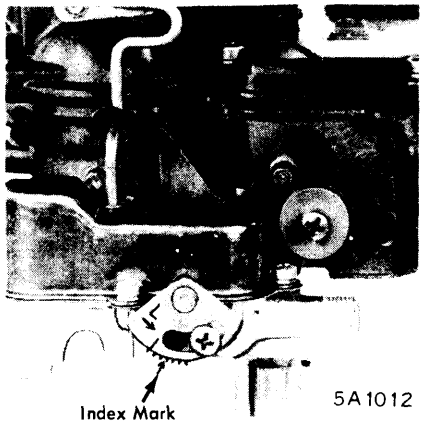
Carburetor	Dashpot Clearance
2968A, 3217A, 3304A, 3388A	5/32"
3307-1A, 3483-1A	5/32"
3484-1A	3/16"



BOWL VENT ADJUSTMENT (1965 CARBURETORS)



BOWL VENT ADJUSTMENT (1966 & LATER CARBURETORS)



AUTOMATIC CHOKE ADJUSTMENT

OVERHAUL

Disassembly (1965 Carbs.)

1) Disconnect choke link at choke lever and remove fast idle cam. Remove fuel inlet fitting and screen. Separate air horn and bowl cover from main body. Remove fuel bowl baffle, float shaft, float, and inlet needle. Clean up staking around power valve piston cylinder, remove power valve and piston assembly (use Tool J-10235-1). Squeeze ends of bowl vent spring together and slide bowl vent out of bowl cover. Inspect choke valve and shaft for wear and damage, remove only if replacement required. *CAUTION - Do not attempt to remove main well air bleed tubes and protect tubes from damage while servicing the carburetor.*

2) Remove dashpot and bracket assembly. Invert carburetor and catch pump discharge check needle which will drop out. Remove pump override spring and pump lever assembly, slide pump assembly out. Remove pump rod guides. Remove pump cup retainer and cup from pump assembly *(CAUTION - Pump cannot be disassembled further).* Remove pump inlet check ball retainer and check ball from bottom of pump cylinder. Remove main metering jets from fuel bowl (use Tool J-10174-01). *CAUTION - Power valve is not removable.*

3) Take out retaining screws and remove choke cover, remove thermostatic coil and shaft assembly, remove gasket and invert carburetor and catch choke piston which will drop out.

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HOLLEY 2-BARREL MODEL 2209 (Continued)

Disassembly (1966 & Later Carbs.)

NOTE - No. 3308-1A carburetor disassembly is same as listed for 1967 models.

1) Disconnect choke link at choke lever, disconnect hose and remove choke diaphragm assembly from air horn (1967 carburetors only). Remove fast idle cam from main body. Remove the fuel inlet fitting and screen. Disconnect the accelerating pump operating link and drive spring at throttle lever, then disconnect pump link at pump rod. Remove pump rod retainer screw and retainer, rotate pump rod to disengage it from keyhole slot in pump plunger shaft and remove rod. Remove bowl vent washer from upper end of pump plunger shaft.

2) Remove bowl cover screws and separate air horn and bowl cover from main body. Remove fuel inlet baffle, then remove float shaft, float, and inlet needle. Remove and discard bowl cover gasket.

3) Clean up staking around power valve piston cylinder, use puller, Tool J-10235-1 to remove power valve and piston assembly. Inspect choke valve and shaft for wear and damage, remove only if replacement required. *CAUTION - Do not attempt to remove main well air bleed tubes (tubes must be protected from damage while servicing carburetor).* Remove dashpot and bracket.

4) Lift out pump plunger assembly and return spring (plunger assembly can be disassembled by removing pump cup retainer on lower end of pump plunger shaft). Invert carburetor to drop out pump inlet check ball and discharge needle. Remove main jets from carburetor bowl (Tool J-10174-01). *CAUTION - Power valve is not removable.*

5) Take out retaining screws and remove choke cover, remove thermostatic coil and shaft assembly and choke cover gasket. On 1966 carburetors, invert carburetor to drop out choke piston (not used on 1967 and later carburetors).

6) Separate throttle body from main body, remove idle mixture adjusting screws and springs, and throttle stopscrew and spring. Inspect throttle valves and shaft for wear and damage, remove only if replacement required.

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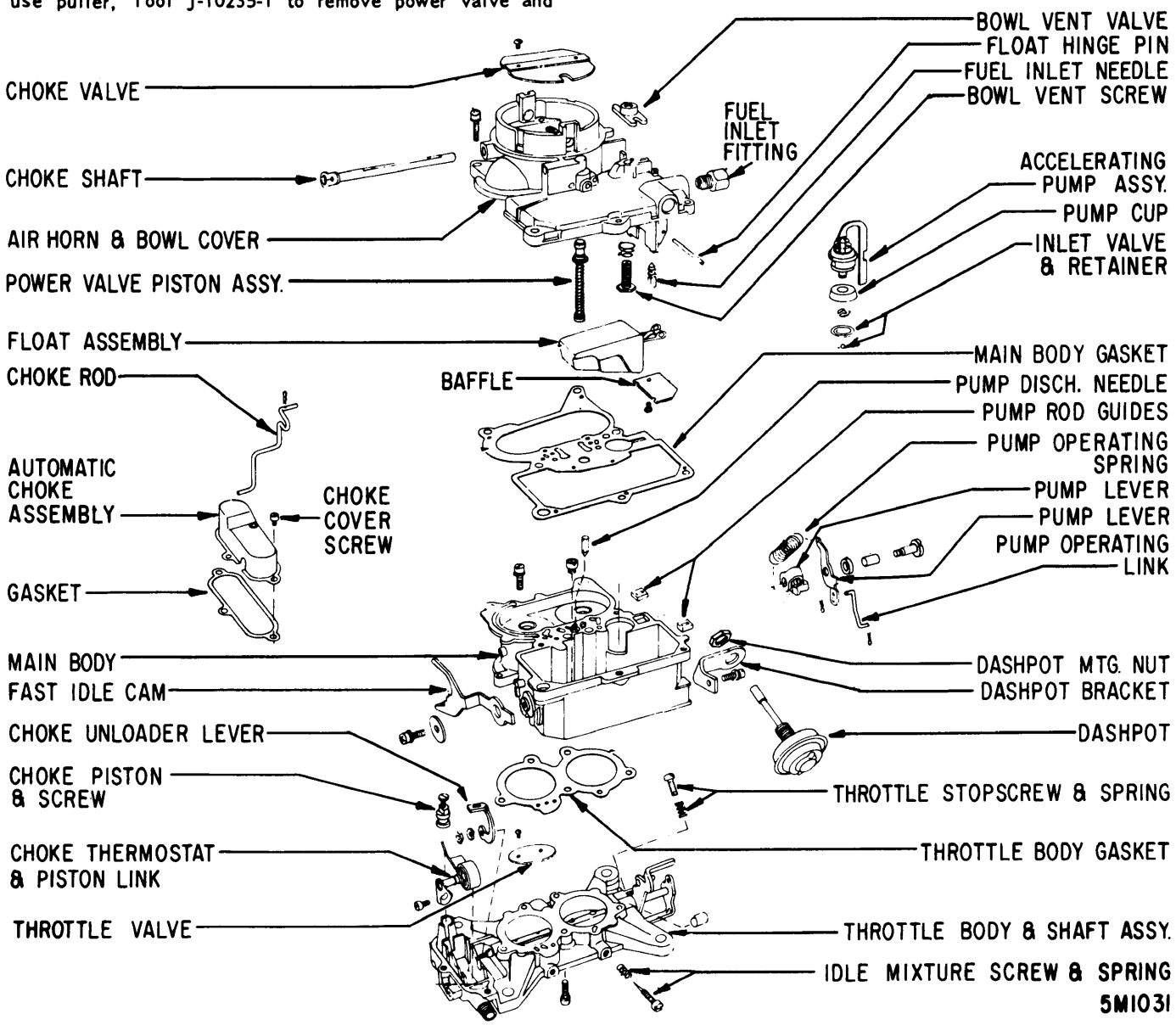

1965 HOLLEY 2-BARREL MODEL 2209 CARBURETOR ASSEMBLY

HOLLEY 2-BARREL MODEL 2209 (Continued)

Cleaning & Inspection

Clean all metal parts with carburetor solvent, blow out all passages with compressed air. Inspect all parts and castings for wear, nicks, cracks, corrosion, and carbon deposits. Replace choke and throttle valves if nicked or protective plating worn through. Check choke and throttle shafts for wear or binding.

Reassembly (All Carbs.)

Use all new gaskets, O-rings, and rubber seals. Reverse disassembly procedure and note the following:

Power Valve & Piston Assembly - Use Tool J-10236-1 to install assembly, lightly stake assembly in bowl cover using Tool J-10237-2.

Choke Assembly (1966 Carburetors) - Install new cover gasket, choke coil, shaft, and wire assembly. Insert choke piston in piston housing and engage wire in top groove of piston. Make certain that choke shaft seal is on outside of choke shaft support. Install choke link in cover and carefully hook link between thermostatic spring end and wire, seat choke cover on gasket being careful not to disengage choke rod, install and tighten cover screws. Install choke rod in lever on choke shaft and install retainer.

Choke Assembly (1967 Carburetors) - Install new choke cover gasket, install thermostatic coil and shaft assembly. Make certain that choke shaft seal is on outside of choke shaft support. Seat choke cover on gasket being careful not to disturb choke shaft seal, install cover retaining screws and tighten evenly. Insert choke rod through hole in choke cover and make certain rod rides on top of thermostatic spring extension, insert upper end of choke rod in choke shaft lever and install hairpin retainer. Install fast idle cam. Insert choke diaphragm rod in keyhole slot of diaphragm plunger stem, and insert other end of rod through slot of choke shaft lever. Position diaphragm assembly on air horn and install attaching screw, connect diaphragm hose.

Accelerating Pump Assembly - With inlet check ball and pump return spring in place in pump cylinder, apply light film of engine oil on pump cup and insert pump plunger assembly in cylinder (do not push it down in cylinder).

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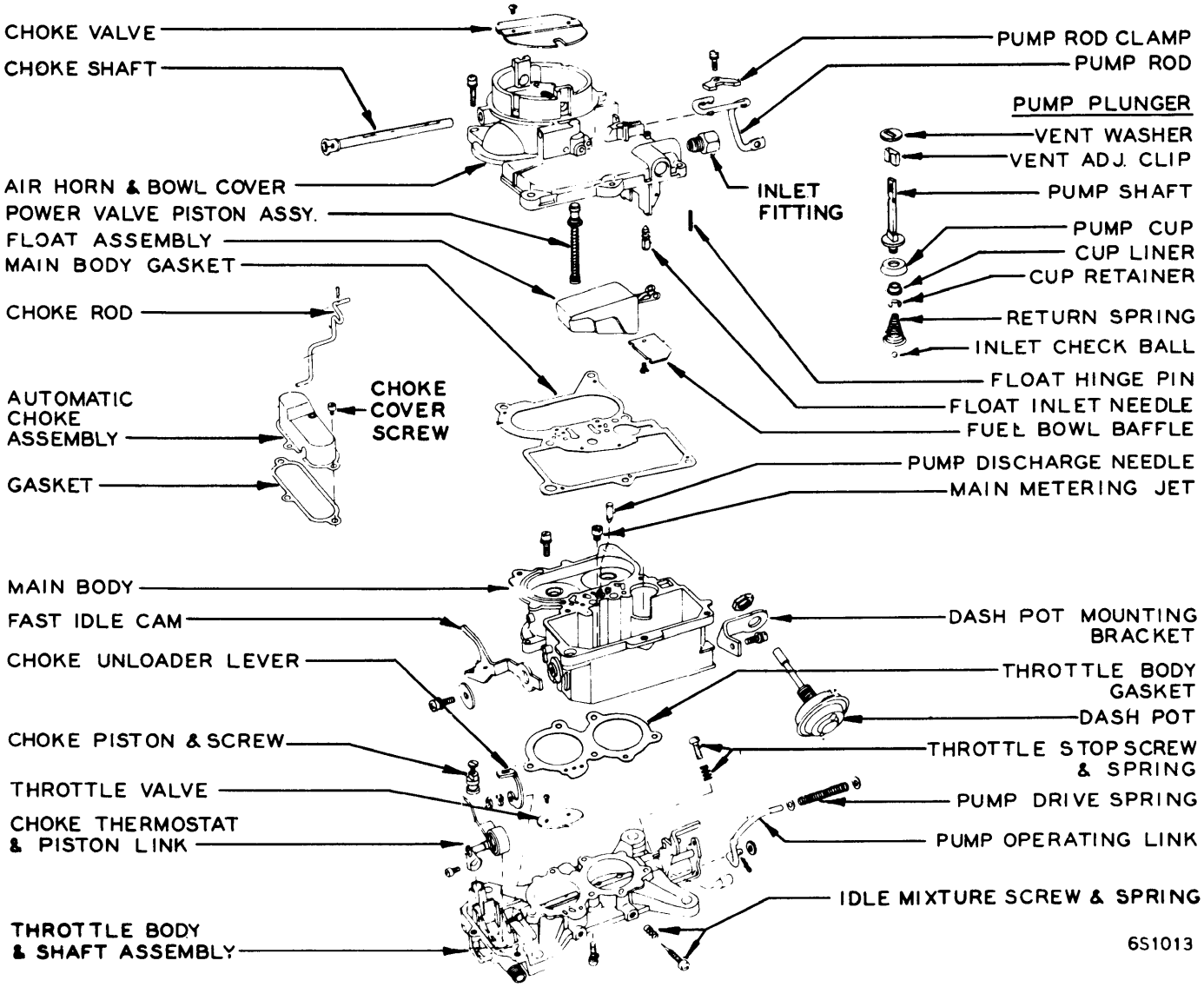
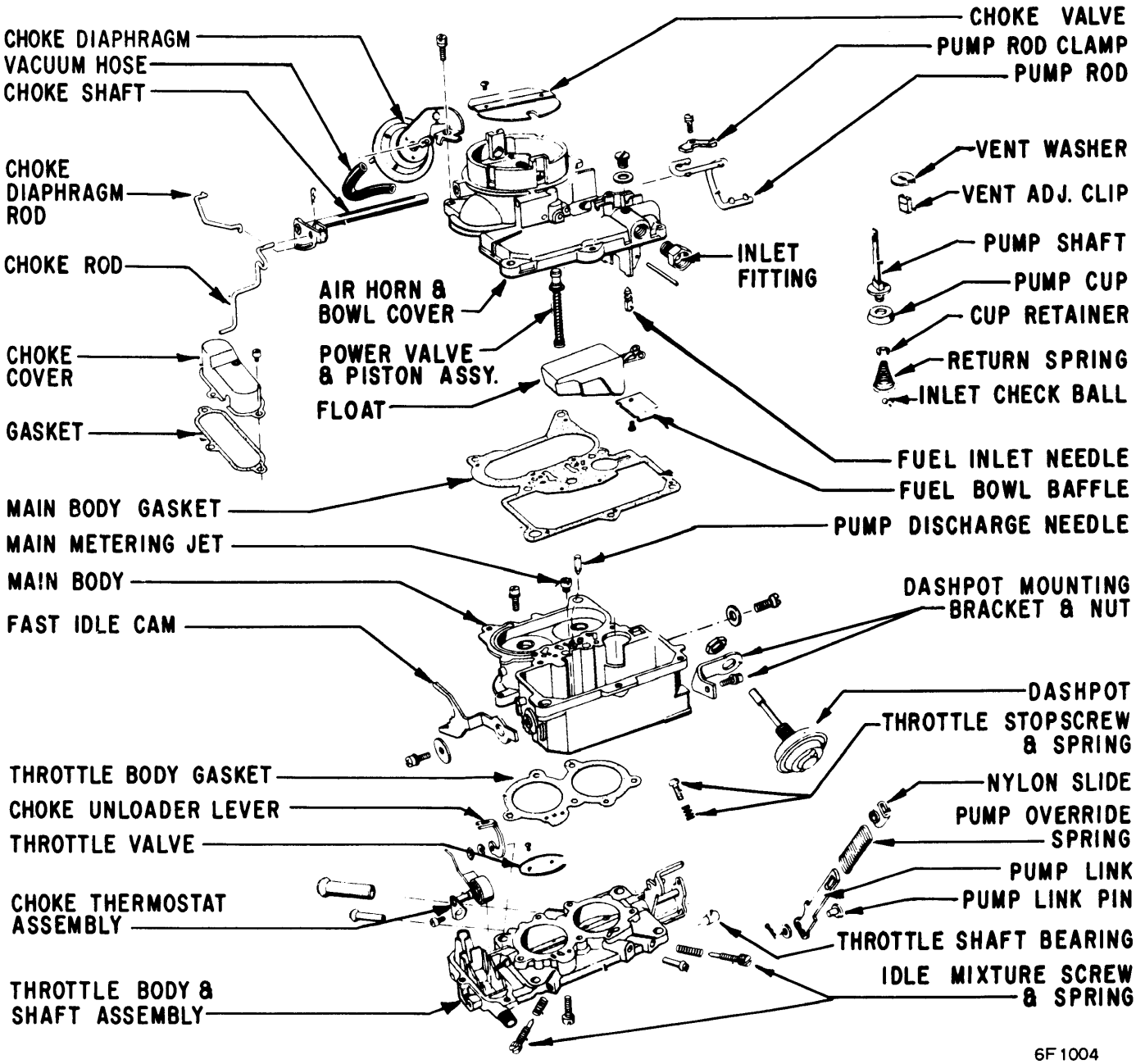


1966 HOLLEY 2-BARREL MODEL 2209 CARBURETOR ASSEMBLY

HOLLEY 2-BARREL MODEL 2209 (Continued)

After air horn installed, place bowl vent washer on pump plunger shaft, pull pump shaft toward back of bowl and carefully push it down in pump cylinder. Install pump rod in keyhole slot on shaft and secure rod in position on bowl cover and, while continuing to hold pump shaft down, assemble and install pump link in pump rod and throttle lever. Check pump action by operating throttle lever, pump must operate freely without binding. *CAUTION - Pump plunger cup can be damaged if pump not installed as above.*

Air Horn & Bowl Cover - When installing cover, tighten two center screws first (closest to air horn), tighten all screws evenly.



1967 HOLLEY 2-BARREL MODEL 2209 CARBURETOR ASSEMBLY