HOLLEY (WEBER) 2-BARREL MODEL 5210-C

CHEVROLET VEGA
140 CID ENGINE

Application	Holley Carb. No. Auto. Trans.	Man. Trans.
Vega (Non-Calif.)	331156	331157
(Calif.)	331158	331159

FORD MOTOR CO.
2000cc (122 CID) ENGINE

Application	① Ford Carb. No. Auto. Trans.	Man. Trans.
Pinto	D32F-CA	D32F-BD

① – Ford carburetor part number prefix and suffix, basic part number (9510) ommited.

CARBURETOR IDENTIFICATION

Vega – Identification number is stamped on float bowl of carburetor.

Pinto – Carburetor identification number prefix and suffix (Example: D32F-CA) stamped on carburetor body or attached metal tag. First letter of second line indicates design change which may affect part replacement. Other digits on second line do not pertain to servicing of carburetor.

DESCRIPTION

Carburetor is two stage, two venturi type, with primary venturi smaller than secondary. Secondary stage operated by mechanical linkage. Primary stage includes curb idle, accelerator pump, idle transfer, main metering jet, and power enrichment systems. Secondary stage includes transfer, main metering jet, and power enrichment systems. A single fuel bowl supplies fuel for both stages. A water heated automatic choke with integral diaphragm type choke plate pull-down is mounted on carburetor main body.

Idle Limiter Caps – All carburetors are equipped with idle mixture adjusting limiters. Limiters control maximum idle richness. Plastic idle limiter cap is installed on head of idle mixture adjusting screw. Any adjustment must be made within range of limiter stops.

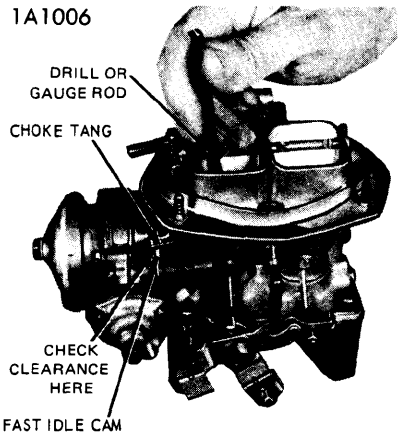
ADJUSTMENT

IDLE SPEED & MIXTURE

With engine at operating temperature and all other tune-up specifications correct, adjust curb idle as follows:

1) Place Auto. Trans. lever in "D" and disconnect throttle solenoid wire. Set lower curb idle using curb idle adjusting screw.

2) Reconnect throttle solenoid wire and open throttle slowly by hand to allow plunger to extend. Set higher idle speed by turning solenoid plunger. Turn idle mixture screw inward to obtain smoothest idle.



FAST IDLE CAM CLEARANCE

FAST IDLE CAM CLEARANCE

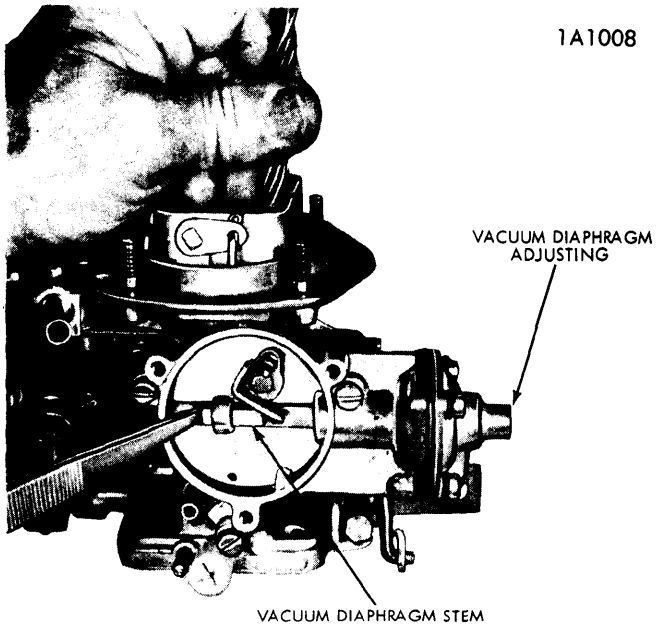
Insert a .140" drill or gage (Vega) or a 5/32" drill (Pinto) between lower edge of choke plate and air horn wall. With fast idle screw held on second step of fast idle cam, measure distance between tang of choke lever and arm on fast idle cam. If clearance is not correct, bend tang on choke lever to adjust.

FAST IDLE SPEED

With engine at normal operating temperature, position fast idle screw on top step of fast idle cam (Vega) or on second step against shoulder of first step on fast idle cam (Pinto). Adjust fast idle screw to obtain speed shown in Specification Table.

CHOKE PLATE PULL-DOWN

Remove choke thermostatic spring cover assembly, but do not remove water cover screw. Push diaphragm stem back against its stop. Remove any slack in choke linkage by applying finder pressure to top edge of choke plate. Measure clearance between lower edge of choke valve and wall of air horn, using drill or gauge rod of .300" diameter (Vega) or .236" diameter (Pinto). Turn adjusting screw as required.



ADJUSTING CHOKE PULL-DOWN

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HOLLEY (WEBER) 2-BARREL MODEL 5210-C (Cont.)

CARBURETOR ADJUSTMENT SPECIFICATIONS

Carb. Number	Idle Speed (Engine RPM) Hot①②	Idle Speed (Engine RPM) Fast	Float Level Setting	Float Drop Setting	Accel. Pump Stroke	Choke Pull-Down Setting	Unloader Setting	Auto. Choke Setting
Holley No.								
331156	750/500④	2200	.140"	Hole #2	.420"	.300"	.....	2 Rich
331157	1200/700⑤	2000	.140"	Hole #3	.420"	.300"	.....	1 Rich
331158	750/500④	2200	.140"	Hole #2	.420"	.300"	.....	2 Rich
331159	1200/700⑤	2000	.140"	Hole #3	.420"	.300"	.....	1 Rich
Ford No.								
D32F-CA	⑥	1800	.158"	Hole #2	.420"	.158"	.256"	Index
D32F-BD	⑥	1600	.118"	Hole #2	.420"	.158"	.256"	1 Lean

① Headlights on High Beam, Air Conditioning OFF.
Higher RPM – Solenoid Energized, with Auto. Trans. in D, Man. Trans. in N.
Lower RPM – Solenoid Disconnected.
② Dry Setting ± 1/32".
③ ± .020"
④ 800/500 with Air Conditioning.
⑤ 1200/800 with Air Conditioning.
⑥ – Set to specifications shown on Tune-Up Decal located in engine compartment.

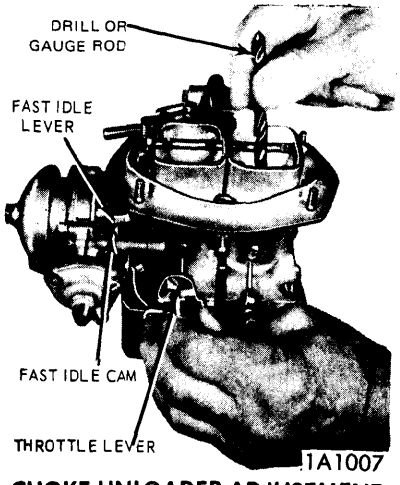
CHOKE UNLOADER

NOTE – On Vega models, choke unloader is adjusted when fast idle cam clearance is set. On Pinto models, proceed as follows:

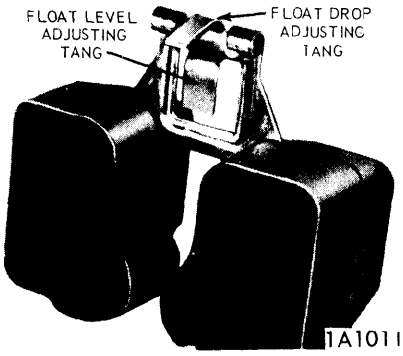
Hold throttle lever in wide open position. Take all slack out of choke linkage by applying pressure to top edge of choke plate. Measure clearance between lower edge of choke plate and air horn wall. Adjust to .256" by bending tab on fast idle lever where it touches fast idle cam.

DRY FLOAT SETTING

Hold carburetor bowl cover in inverted position with float tang resting on needle of needle valve. Measure clearance between edge of float and bowl cover. Adjust to .420" by bending float tang.



CHOKE UNLOADER ADJUSTMENT



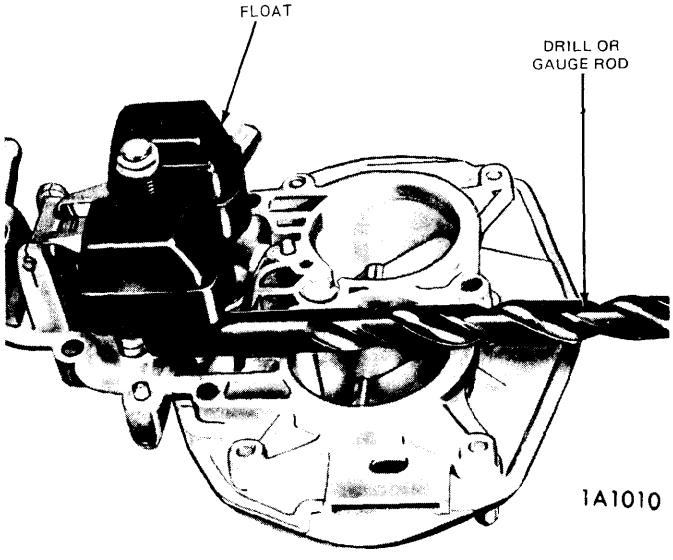
FLOAT ADJUSTMENT TANGS

SECONDARY THROTTLE STOP SCREW

Back off secondary throttle stop screw until secondary throttle plate seats in its bore. Now turn screw in until it touches tab on secondary throttle lever, then turn screw in an additional 1/4 turn.

AUTOMATIC CHOKE

Choke cover can be rotated slightly after loosening three screws. It is not necessary to loosen or remove water cover. Adjust choke cover to specifications and tighten retaining screws.



FLOAT LEVEL MEASUREMENT

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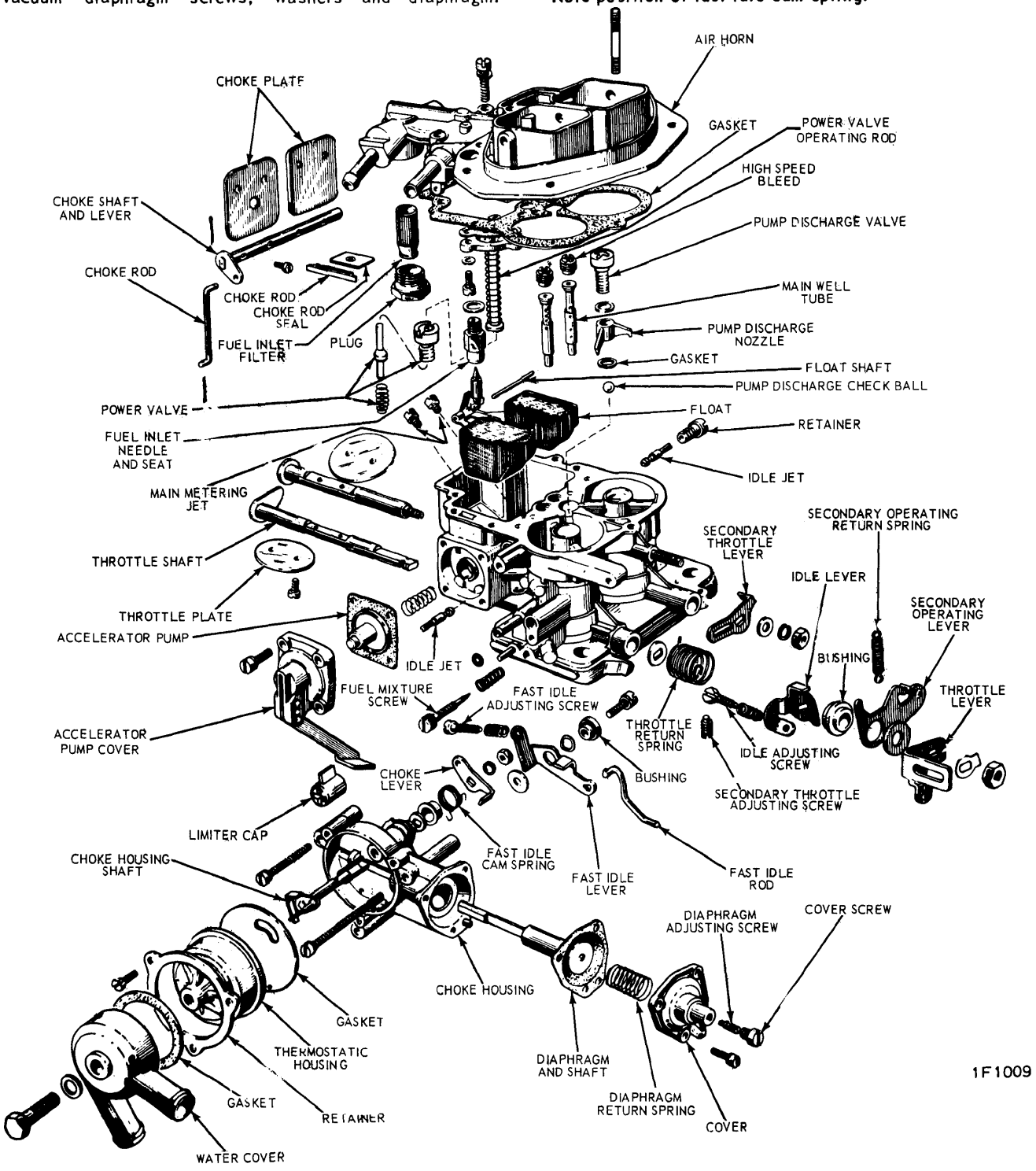
OVERHAUL

Disassembly

1) Remove fuel inlet filter plug and screen assembly. Remove bowl cover screws and lockwasher, then remove retaining clips from choke rod and carefully remove bowl cover. Remove choke rod seal plug and seal. Remove float shaft, float, and inlet needle, then remove the three vacuum diaphragm screws, washers and diaphragm.

2) Remove choke water housing screws and washer. Remove water cover and gasket. Remove three choke thermostatic spring housing retaining screws, then remove ring, choke thermostatic spring housing and gasket. Remove choke housing assembly screws (3), slip housing away from main body and disengage fast idle rod, **note location of the long screw.** Remove O-ring from vacuum passage, then remove choke shaft nut and lock washer. **Note position of fast idle cam spring.**



FORD (WEBER DFAV) 5200 CARBURETOR ASSEMBLY

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3) Remove the spring loop from choke lever, then remove choke lever and spring, and spring retainer. Remove choke shaft washer, choke shaft, lever, and Teflon bearing. Remove fast idle lever and shaft retaining screw, bushing and spring washer. Remove fast idle lever, flat spacer, and adjusting screw and spring. Remove choke diaphragm cover screws (3) and cover assembly. Remove return spring, diaphragm and rod assembly, diaphragm plug and diaphragm adjusting screw, from cover.

4) Remove pump cover screws (4) and pump cover assembly, then remove pump diaphragm assembly and return spring. Remove pump discharge valve assembly and discharge valve assembly and discharge nozzle with two gaskets, then remove the pump channel plug screw.

5) Remove primary well air bleed plug and main well tube, remove secondary main well air bleed plug and main well tube. Note size of air bleed plugs and main well tubes for reinstallation in their proper locations. Remove primary and secondary main metering jets, noting their size for proper reinstallation. Remove power valve and gasket, remove primary and secondary idle jet retainer plugs and idle jets located on the sides of the carburetor body.

6) Turn idle limiter cap in to the stop, remove cap, then count number of turns required to lightly seat idle adjustment needle (count to nearest 1/16 turn), so that needle may be reinstalled at the same location, then remove idle needle and spring.

7) Remove secondary operating lever return spring, then remove primary throttle lever nut and lock washer. Remove primary lever and flat washer, secondary operating lever assembly and lever bushing. Remove idle adjusting lever spring and shaft washer, noting how primary throttle return spring is hooked over idle adjusting lever and carburetor body. Remove idle speed screw and spring from idle adjusting lever, then remove secondary throttle lever nut, lock washer, flat washer and secondary throttle lever, and adjusting screw.

Cleaning & Inspection

Inspect all parts for damage or wear, replace as necessary. Clean all parts in a suitable solution.

Reassembly

Use all new gaskets and reverse disassembly procedures.

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