HOLLEY (WEBER) 2-BARREL MODEL 5210-C

CHEVROLET VEGA GT

Application	Holley Carburetor No. Man. Trans.	Auto. Trans.
140" GT		
Federal	338179	338168
California	338181	338170

FORD MOTOR CO.

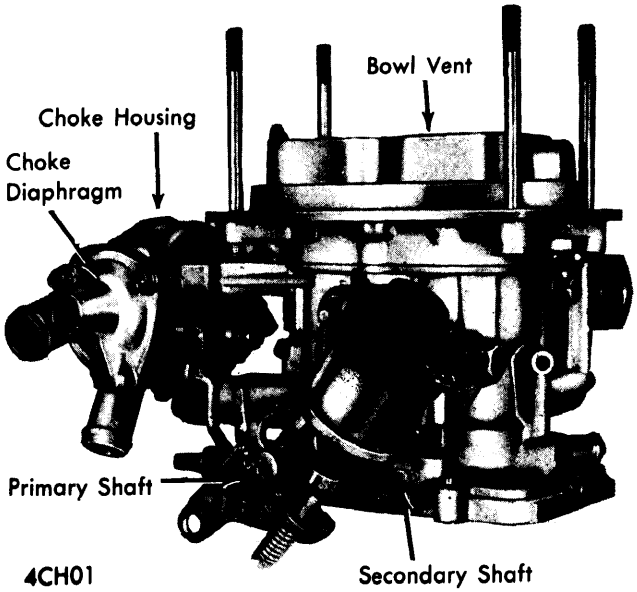
Application	Ford Carburetor No. Man. Trans.	Auto. Trans.
Pinto 2000 cc		
Federal	①D42F-EA	D42F-GA
California	D42F-FA	D42F-HA
Pinto & Mustang 2300 cc		
Federal	D42E-DA,DB,CD	D42E-CA,CB,GA
California	D42E-BA,KA	D42E-AA,AC,CD
Mustang 2800 cc		
Federal	D4ZE-DA,DC	D4ZE-BA,BC
California	D4ZE-CA	D4ZE-AA,AB

① – Also Carb. No. D42E-EB.

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.



HOLLEY 5200 (TYPICAL)

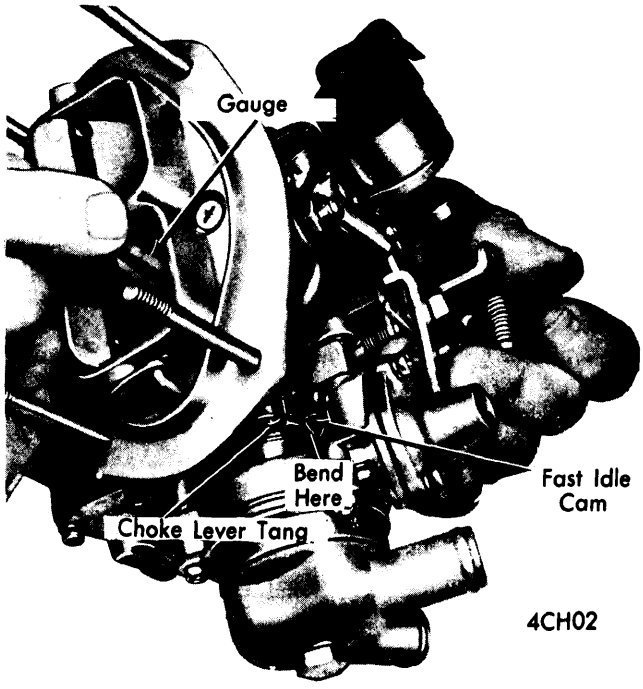
DESCRIPTION

Carburetor is two stage, two venturi type, with primary venturi smaller than secondary. Secondary stage operated by mechanical linkage. Primary staae 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.

ADJUSTMENT

FAST IDLE CAM CLEARANCE

Insert drill or gauge between lower edge of choke plate and air horn wall. With fast idle screw held on second highest step of fast idle cam, measure distance between tang on choke and arm on fast idle cam. If clearance is not correct, bend tang of choke lever. *NOTE – Choke unloader is automatically set when fast idle cam is properly adjusted.*



FAST IDLE CAM CLEARANCE ADJUSTMENT

CHOKE PLATE PULL-DOWN

Remove choke thermostat housing cover, but do not remove water cover screw. Push diaphragm stem back against its stop and remove any slack from choke linkage by applying finger pressure to top edge of choke plate. Using drill or gauge, measure distance between lower edge of choke valve and air horn wall. Turn adjusting screw as required.

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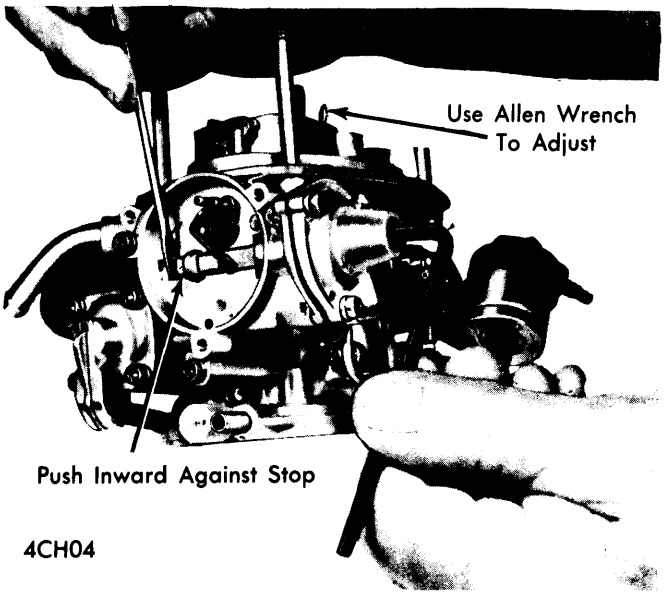
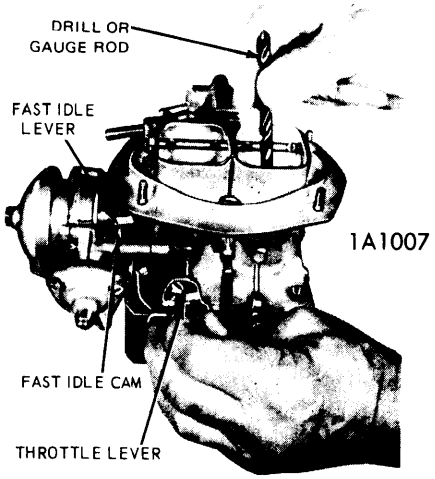


CHOKE VALVE PULL-DOWN

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.



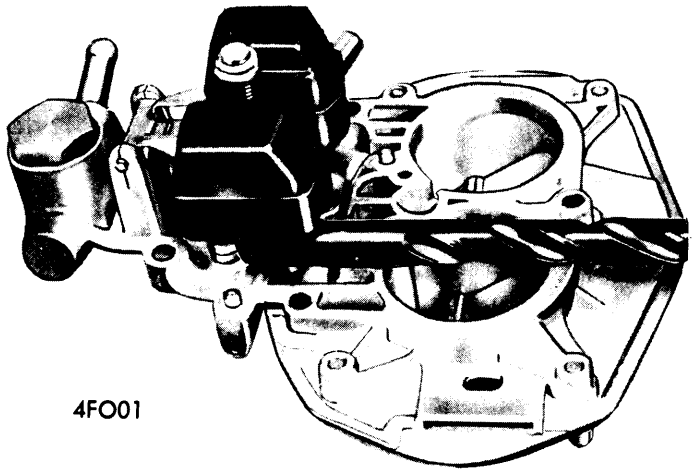
CHOKE UNLOADER ADJUSTMENT

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.

DRY FLOAT SETTING

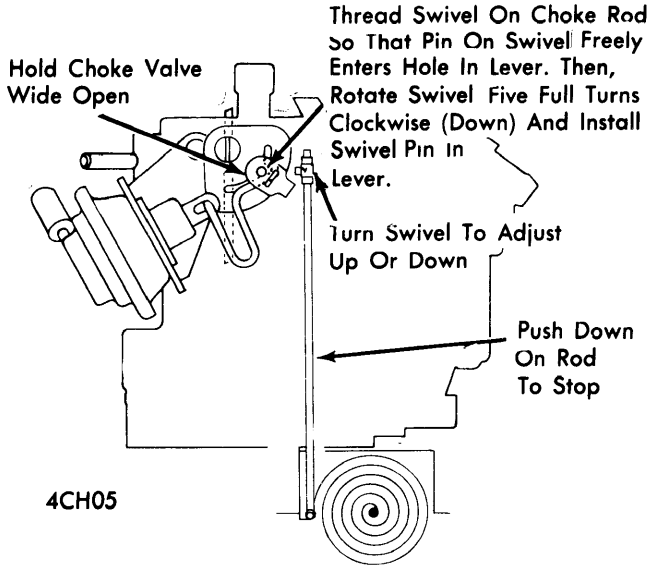
Hold carburetor in an inverted position with float tang resting on needle valve. Measure clearance between edge of float and cover. Adjust to specifications by bending float tang.



FLOAT LEVEL ADJUSTMENT

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.



CHOKE COIL ROD ADJUSTMENT

FAST IDLE SPEED

With engine at normal operating temperature, position fast idle screw on second highest step and against shoulder of first step on fast idle cam. Adjust fast idle screw to specifications.

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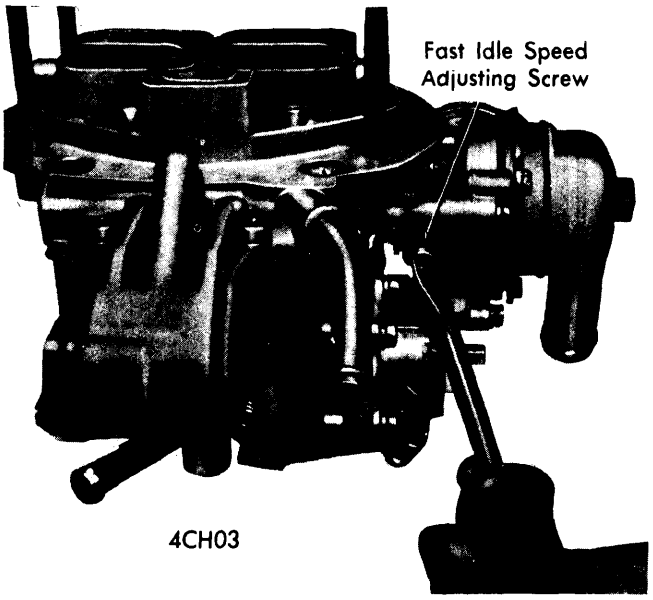
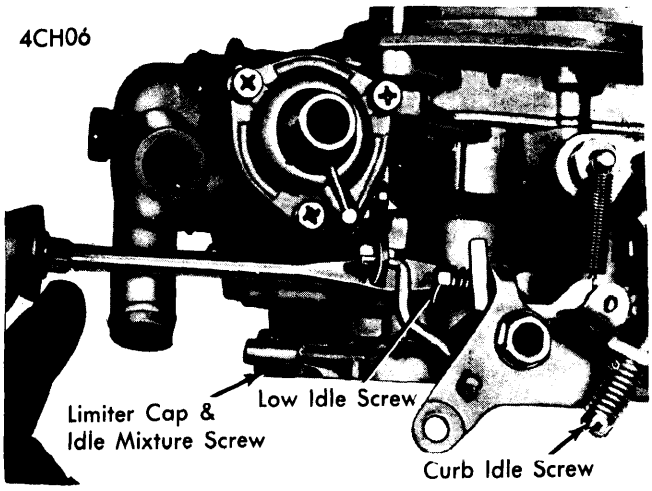


FAST IDLE SPEED

IDLE SPEED (THROTTLE STOP) SOLENOID

NOTE — In order to comply with emission standards, specifications shown on engine compartment emission control tune-up decal must be used in all instances. Decal information should be considered the most valid information available. Do not allow engine (Pinto and Mustang) to idle more than 30 seconds at one time. If adjustments take longer, raise engine speed to 2000 RPM to stabilize engine temperature, then continue adjustment.

Preparations For Adjustment (Vega) — Block wheels and apply parking brake. Start and warm engine to normal operating temperature. Disconnect fuel tank vent hose from vapor canister. Disconnect and plug distributor vacuum hose at vacuum advance unit. Leave air cleaner installed and if equipped with air conditioner, place in "OFF" position.



IDLE SPEED & MIXTURE ADJUSTMENT (VEGA)

CARBURETOR ADJUSTMENT SPECIFICATIONS

Ford Carb. Number	Idle Speed (Engine RPM)		Fast Idle Cam Setting	Accel. Pump Setting	Float Level Setting	Choke Pull-Down Setting	Unloader Setting	Auto. Choke Setting
	Hot	Fast						
Holley Carb. No. (Vega)								
338179	700/1200	②2000	.140"	#3	③.420"	.300"	....	2½-Rich
338181	700/1200	②2000	.140"	#3	③.420"	.300"	....	2½-Rich
339168	700/1200	②2000	.140"	#2	③.420"	.300"	....	3½-Rich
338170	700/1200	②2000	.140"	#2	③.420"	.300"	....	3½-Rich
Ford Carb. No.								
D42F-EA	①	1600	.157"	#2	.460"	.236"	.255"	Index
D42F-GA	①	1600	.157"	#2	.460"	.236"	.255"	Index
D4ZE-CA	①	1600	.195"	#2	.460"	.195"	.256"	1-Rich
D42E-AA	①	1600	.157"	#2	.460"	.280"	.255"	Index
D42E-BA	①	1600	.157"	#2	.460"	.280"	.255"	1-Rich
D4ZE-BC	①	1600	.195"	#2	.460"	.196"	.255"	1-Rich
D4ZE-DC	①	1600	.195"	#2	.460"	.195"	.255"	1-Rich
D42E-EB	①	1600	.158"	#2	.460"	.195"	.255"	Index
D42E-CD	①	1600	.158"	#2	.460"	.280"	.255"	Index
D42E-AC	①	1600	.158"	#2	.460"	.280"	.255"	Index
D42E-KA	①	1600	.158"	#2	.460"	.280"	.255"	1-Rich

① — See engine compartment emission control tune-up decal.

② — With distributor vacuum advance disconnected, fast idle is 2200 RPM.

③ — Float drop should be 1 ± ⅛".

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Preparations For Adjustment (Ford Motor Co.) – Block wheels and apply parking brake. Start and warm engine to normal operating temperature. Set timing and idle. Turn mixture screw counterclockwise to full rich stop. Remove air cleaner, disconnect and plug evaporator canister-to-air cleaner hose. Disconnect A.I.R. (except to 2300 cc) at check valve. Place heater control in "Max." heat position.

Adjustment (Ford) – 1) Preparations for adjustment must be completed. Remove air cleaner and plug vacuum hose. Place manual transmission in Neutral or automatic transmission in "D". Turn air conditioner off (except on 2000 cc). Disconnect decel valve-to-carburetor hose. With solenoid energized and extended, turn solenoid plunger to obtain specified idle RPM.

2) Disconnect solenoid lead, place automatic transmission in "N" and adjust carburetor idle speed screw to obtain 500-550 RPM. Connect solenoid lead and open throttle to allow plunger to extend. Stop engine and replace air cleaner and connect all vacuum lines. Restart engine and check idle RPM. Readjust solenoid and mixture screw (do not remove idle limiter cap) to obtain smoothest possible idle at specified idle RPM. After idle adjustment readjust Decel valve.

IDLE MIXTURE

Exhaust Gas Analyzer Procedure (Ford) – 1) Preparations for adjustment must be completed. *See Idle Speed (Throttle Stop) Solenoid.* Connect exhaust gas analyzer to vehicle and calibrate meter. Place automatic transmission in "D" and check CO level. If not within specifications, recheck meter calibration, then recheck CO level.

2) If still not within specifications, remove air cleaner and idle mixture limiter cap. Adjust mixture screw to obtain specified CO level, and immediately readjust idle speed to specifications. Install air cleaner and check for correct CO level. Repeat adjustment procedure, if necessary, to obtain correct CO level at specified idle RPM. Install new (blue) limiter cap. After mixture adjustment, readjust Decel valve.

Exhaust Gas Analyzer Procedure (Vega) – 1) Preparations for adjustment must be completed. *See Idle Speed (Throttle Stop) Solenoid.* Connect exhaust gas analyzer to vehicle and place automatic transmission in "D". Set idle speed to specifications with idle speed solenoid energized and extended (solenoid de-energized on Vega with manual transmission).

2) Record idle and CO level. If idle CO level exceeds .5% proceed as follows: Turn mixture screw clockwise until idle CO is at or below specifications. Do not remove idle limiter cap. Reset idle speed, if necessary, with air cleaner installed and idle speed solenoid energized and extended.

NOTE – Correct mixture for emission compliance and idle quality are preset by manufacturer. Following procedure should only be used when no CO meter is available.

Tachometer (Speed Drop) Procedure (Vega) – Preparations for adjustment must be completed. *See Idle Speed (Throttle Stop) Solenoid.* Break off mixture cap and place automatic transmission in "D". Adjust idle speed to higher specified idle RPM, with solenoid energized and extended. Richen mixture screw until maximum idle RPM is obtained. Reset idle to higher specified RPM, if necessary. Lean (turn clockwise) mixture screw until lower specified idle RPM is obtained.

OVERHAUL

DISASSEMBLY

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

2) Remove choke water housing cover, gasket, choke thermostat spring housing, and gasket. Slip housing away from main body and disengage fast idle rod (noting location of long screws). Remove "O" ring from vacuum passage, then remove choke shaft nut and lock washer, (noting positon of fast idle cam and spring). *NOTE – On 2800 cc Mustang, remove fast idle cam return spring.*

3) Remove pump cover, diaphragm, and return spring. Remove pump discharge valve assembly and discharge nozzle. Then remove two pump discharge check balls.

4) Remove primary and secondary high speed bleed and main wells, noting sizes for reinstallation. Remove primary and secondary main metering jets, noting sizes for reinstallation. Remove power valve and primary and secondary idle jets.

5) Turn idle limiter caps to stop, remove caps, and lightly seat screws. After noting number of turns to seat, remove screws. Remove secondary operating lever return spring, then remove primary throttle lever. *NOTE – On 2800 cc Mustang, remove transmission lever and bushing.* Remove idle adjusting lever spring, noting how primary throttle return spring is hooked. Remove secondary throttle lever and adjusting screw.

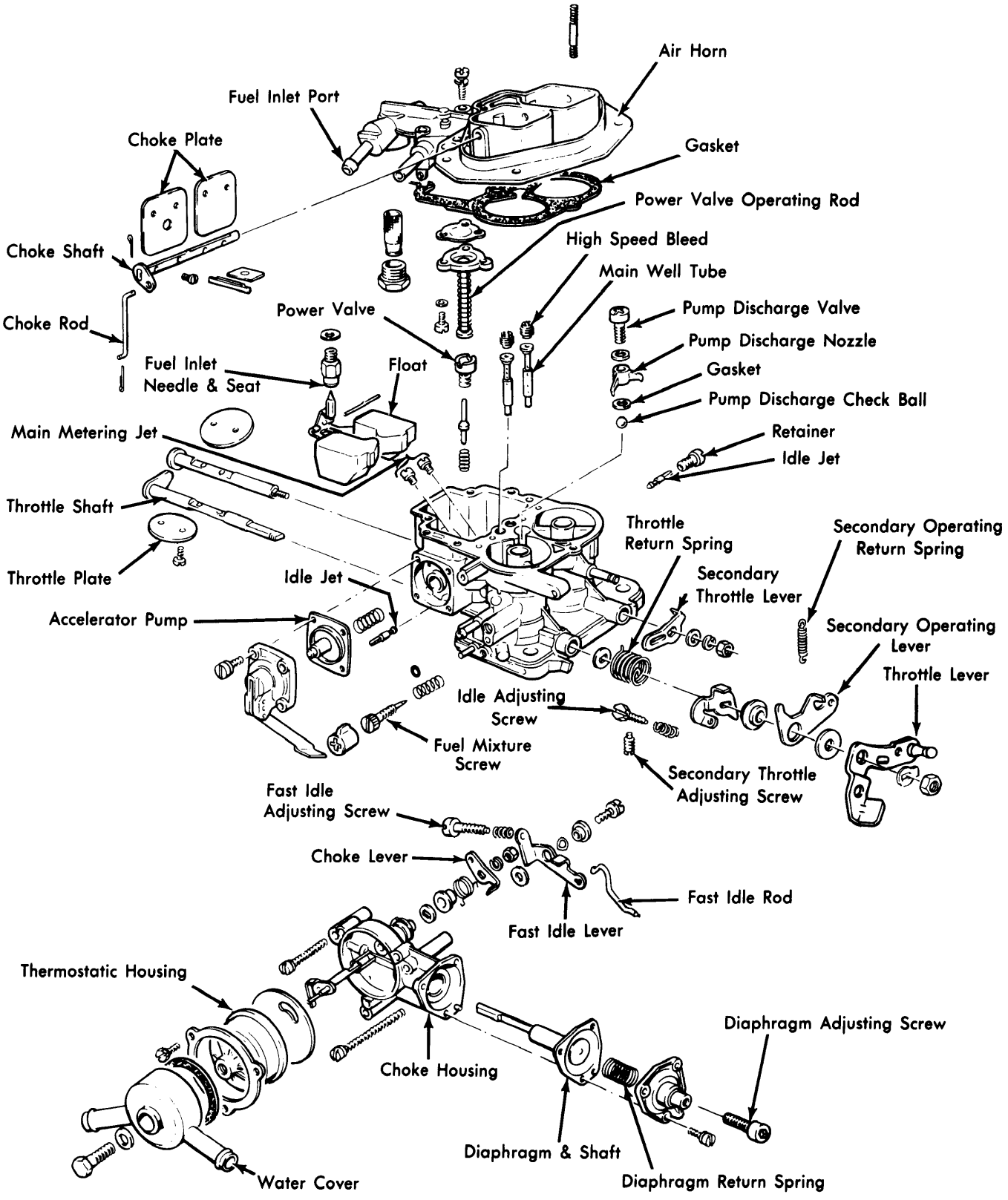
CLEANING & INSPECTION

Clean all parts in suitable solvent and blow dry. Inspect all parts for excessive wear and replace if necessary. *NOTE – Do not place any diaphragm or plastic parts in solvent, these should be cleaned with a soft brush or cloth.*

REASSEMBLY

Use all new gaskets and reverse disassembly procedures.

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



MOTORCRAFT 5200 CARBURETOR ASSEMBLY (TYPICAL)