1970-72 FORD (MOTORCRAFT) 2100-D 2-BARREL

FORD MOTOR CO.

1970

① Ford Carburetor No.

V8 ENGINES②	Synchro-mesh	Auto. Trans.
302"	DOAF-C	DOAF-D
With A/C		DOAF-U
351" W	DOAF-E	DOAF-F
With A/C		DOAF-V
351" C	DOOF-K	DOOF-L
With A/C		DOOF-M
390"	DOAF-Y	DOAF-Z
With A/C		DOAF-AA
429"		DOAF-J
With A/C		DOAF-T

① — Ford carburetor number prefix and suffix with basic part number (9510) omitted.
② — Ford engines used as follows:

302" — Ford, Falcon, Fairlane, Montego, Mustang.
351" W — Ford, Mustang, Cougar.
351" C — Fairlane, Montego.
390" — Ford, Mercury.
429" — Ford, Mercury.

1971

① Ford Carburetor No.

V8 ENGINES②	Synchro-mesh	Auto. Trans.
302"	D1AF-BA	D1AF-DA
	D1OF-ABA	
With A/C		D1ZF-AA
351" W	D1AF-FA	D1AF-JA
With A/C		D1AF-KA
351" C	D1OF-PA	③ D1ZF-SA
	D1OF-ZA	③ D1ZF-UA
		④ D1OF-RA
		④ D1OF-YA
390"		D1YF-DA
400"		D1MF-JA
	D1MF-KA	D1MF-LA
429"		D1MF-FA

① — Ford Carburetor number prefix and suffix with basic part number (9510) omitted.
② — Ford engines used as follows:

302" — Ford, Torino, Montego, Mustang, Comet.
351" W — Ford, Mercury.
351" C — Torino, Montego, Mustang, Cougar.
390" — Ford.
400" — Ford, Mercury.
429" — Ford, Mercury.

③ — Except California Vehicles.
④ — California Vehicles only.

1972

① Ford Carburetor No.

V8 ENGINES②	Synchro-mesh	Auto. Trans.
302" (EXC.CALIF.)		D2GF-AA, AB, AC
		D2AF-HA, HB, HC
With A/C	D2OF-KA, KB	D2GF-BA, BB, BC
302" (CALIF.ONLY)		D20F-VA
With A/C		D2ZV-FA, FB
351" W & C	D2ZV-LA, LC	
351" W		D2AF-FB, FC
With A/C		D2AF-GB, GC
351" C (EXC.CALIF.)		D2OF-UB
		D2WF-CA
351" C (CALIF.ONLY)		D2OF-UB
400" (50 STATES)		D2MF-FB, FE, FF
400" (CALIF.ONLY)		D2AF-VC

① — Ford Carburetor number prefix and suffix with basic part number (9510) omitted.
② — Ford engines used as follows:

302" — Ford, Meteor, Police-Taxi, Torino, Montego, Maverick, Comet, Mustang.
351" W & C — Mustang, Cougar.
351" W — Ford.
351" C — Ford, Meteor, Mercury, Torino, Montego, Mustang, Cougar.
400" — Ford, Mercury, Meteor, Torino, Montego, T-Bird.

AMERICAN MOTORS & JEEP

1970

American Motors Code No.

V8 ENGINES	Synchro-mesh	Auto. Trans.
304"	0DM2	0DA2
360"		0RA2

1971

American Motors Code No.

V8 ENGINES	Synchro-mesh	Auto. Trans.
304"	1DM2	1DA2
360"	1DM2	① 1RA2

① — 1RA2A used on some vehicles (Production Change).

1972

American Motors Code No.

V8 ENGINES	Synchro-mesh	Auto. Trans.
304"	2DM2	2DA2
360"	2DM2	2RA2

1970-72 FORD (MOTORCRAFT) 2100-D 2-BARREL (Cont.)

CARBURETOR ADJUSTMENT SPECIFICATIONS

Ford Carb. Number	Idle Speed⑦ (Engine RPM)		Dry Float Setting ③	Wet Fuel③ Level Setting	Accel. Pump Setting	Initial Choke Pull-Down Clearance	Fast② Idle Cam Linkage Clearance	Unloader Setting	Auto. Choke Setting
	Hot ①④	Fast②							
DOAF-AA	600/500	1500	7/16″	13/16″	Inner–#3	.200″	.160″	.060″	2-Rich
DOAF-C	800/500	1400	7/16″	13/16″	Inner–#3	.150″	.130″	.060″	1-Rich
DOAF-D	575	1500	7/16″	13/16″	Inner–#3	.150″	.130″	.060″	1-Rich
DOAF-E	800/500	1300	7/16″	13/16″	Inner–#3	.230″	.190″	.....	2-Lean
DOAF-F	575	1600	7/16″	13/16″	Inner–#4	.200″	.170″	.....	2-Lean
DOAF-G	.....	1400	7/16″	13/16″	Inner–#3	.210″	.170″	.060″	1-Rich
DOAF-J	590	1400	7/16″	13/16″	Inner–#3	.200″	.160″	.060″	2-Rich
DOAF-T	600/500	1400	7/16″	13/16″	Inner–#3	.200″	.160″	.060″	2-Rich
DOAF-U	600/500	1500	7/16″	13/16″	Inner–#2	.150″	.130″	.060″	1-Rich
DOAF-V	600/500	1600	7/16″	13/16″	Inner–#4	.200″	.170″	.....	2-Lean
DOAF-Y	700/500	1400	7/16″	13/16″	Inner–#3	.210″	.170″	.060″	1-Rich
DOAF-Z	.....	1500	7/16″	13/16″	Inner–#3	.200″	.160″	.060″	2-Rich
DOOF-K	700/500	1500	7/16″	13/16″	Inner–#4	.220″	.190″	.060″	Index
DOOF-L	600	1500	7/16″	13/16″	Inner–#3	.190″	.130″	.060″	1-Rich
DOOF-M	600/500	1500	7/16″	13/16″	Inner–#3	.190″	.130″	.060″	1-Rich
DIAF-BA	800/500	1500	7/16″	13/16″	Inner–#2	.150″	.130″	.060″	Index
DIAF-DA	575/500	1500	7/16″	13/16″	Inner–#2	.150″	.130″	.060″	Index
DIAF-FA	775/500	1400	7/16″	13/16″	Inner–#3	.220″	.190″	.060″	1-Rich
DIAF-JA	600	1600	7/16″	13/16″	Inner–#3	.190″	.130″	.060″	Index
DIAF-KA	600/500	1600	7/16″	13/16″	Inner–#3	.190″	.130″	.060″	Index
DIMF-FA	600	1400	7/16″	13/16″	Inner–#3	.200″	.160″	.060″	1-Rich
DIMF-JA	625/500	1500	7/16″	13/16″	Inner–#4	.190″	.160″	.060″	2-Rich
DIMF-KA	625/500	1500	7/16″	13/16″	Inner–#4	.190″	.160″	.060″	2-Rich
DIMF-LA	650/500	1500	7/16″	13/16″	Inner–#4	.190″	.160″	.060″	2-Rich
DIOF-ABA	800/500	1400	7/16″	13/16″	Inner–#3	.170″	.150″	.060″	1-Rich
DIOF-PA	700/500	1500	7/16″	13/16″	Inner–#3	.230″	.190″	.660″	Index
DIOF-RA	625/500	1500	7/16″	13/16″	Inner–#3	.170″	.130″	.060″	1-Rich
DIOF-YA	625/500	1500	7/16″	13/16″	Inner–#3	.170″	.130″	.060″	1-Rich
DIOF-ZA	700/500	1500	7/16″	13/16″	Inner–#3	.230″	.190″	.060″	Index
DIYF-DA	600/500	1500	7/16″	13/16″	Inner–#3	.200″	.160″	.060″	Index
DIZF-AA	600/500	1500	7/16″	13/16″	Inner–#2	.150″	.130″	.060″	Index
DIZF-SA	625/500	1500	7/16″	13/16″	Inner–#3	.170″	.130″	.060″	1-Rich
DIZF-UA	625/500	1500	7/16″	13/16″	Inner–#3	.170″	.130″	.060″	1-Rich
D2AF-FB, FC,GB,GC	600/500	1500	7/16″	13/16″	Inner–#3	.140″	.130″	.030″	Index
D2AF-HA, HB,HC	600/500	1400	7/16″	13/16″	Inner–#2	.150″	.130″	.060″	1-Rich
D2AF-VC	625/500	1500	7/16″	13/16″	Inner–#3	.170″	.150″	.060″	Index
D2GF-AA,AB, AC,BA,BB,BC	600/500	1400	7/16″	13/16″	Inner–#2	.150″	.130″	.060″	1-Rich
2MF-FB, FE,FF	825/500	1500	7/16″	13/16″	Inner–#4	.175″	.150″	.060″	1-Rich
D2OF-KA,KB	800/500	1400	7/16″	13/16	Inner–#2	.140″	.130″	.060″	1-Rich
D2OF-UB	575/500⑤	1500	7/16″	13/16″	Inner–#3	.190″	.160″	.030″	1-Rich
D2OF-VA	600/500	1400	7/16″	13/16″	Inner–#2	.140″	.130″	.060″	1-Rich
D2WF-CA	575/500	1500	7/16″	13/16″	Inner–#3	.190″	.160″	.030″	2-Rich
D2ZF-FA,FB	600/500	1400	7/16″	13/16″	Inner–#2	.150″	.130″	.060″	1-Rich
D2ZF-LA,LC	750/500	1400	7/16″	13/16″	Inner–#3	.240″	.210″	.030″	1-Rich

1970-72 FORD (MOTORCRAFT) 2100-D 2-BARREL (Cont.)

CARBURETOR ADJUSTMENT SPECIFICATIONS (Cont.)

Ford Carb. No.	⑦ Idle Speed (Engine RPM)		Dry Float Setting ③	Wet Fuel ③ Level Setting	Accel. Pump Setting	Initial Choke Pull-Down Clearance	Fast ② Idle Cam Linkage Clearance	Unloader Setting	Auto. Choke Setting
	Hot ①④	Fast ②							
Amer.Mtrs. Code No.									
0DA2	600	1600	3/8"	13/16"	Inner—#3	19/64"	11/64"	13/64"	2-Rich
0DM2	650	1600	3/8"	13/16"	Inner—#3	17/64"	11/64"	13/64"	Index
0RA2	600	1600	3/8"	13/16"	Inner—#3	11/32"	11/64"	13/64"	1-Rich
1DA2	650	1600	3/8"	13/16"	Inner—#3	.190"	.170"	13/64"	2-Rich
1DM2	750/500	1600	3/8"	3/4"	Inner—#3	5/32"	9/64"	13/64"	1-Rich
1RA2	650/500	1600	3/8"	13/16"	Inner—#3	.190"	.170"	13/64"	2-Rich
1RA2A	650/500	1600	3/8"	3/4"	Inner—#3	.160"	.140"	13/64"	2-Rich
2DA2	650⑤	1600	3/8"	3/4"	Inner—#3	.130"	.120"	.200"	2-Rich
2DM2	750	1600	3/8"	3/4"	Inner—#3	.140"	.130"	.200"	1-Rich
2RA2	700	1600	3/8"	3/4"	Inner—#3	.130"	.120"	.200"	2-Rich

① — **Ford** — Auto. Trans. in Drive, Headlights ON (Hi-Beam), A/C OFF. Higher RPM, — Solenoid energized. Lower RPM, — Solenoid de-energized. **American Motors** — Auto. Trans. in Drive .
② — See text for fast idle cam position.
③ — ± 1/32".
④ — 1972 Ford without Solenoid, 575 RPM.
⑤ — California, 625/500 RPM.
⑥ — California, 700 RPM.
⑦ — Lower speed, all trans. in Neutral.

▶ CHANGES, CAUTIONS, CORRECTIONS

▶ *1970 FORD MOTOR CO. IMCO ENGINES NOTE* — These engines have specially calibrated carburetors and distributors with related control units, thermostatically controlled air cleaner, and closed positive crankcase ventilation system for exhaust emission control.

▶ *AMERICAN MOTORS "ENGINE MOD" NOTE* — These engines have emission calibrated carburetors and distributors, thermostatically controlled air cleaner (Auto. Trans. cars), and closed positive crankcase ventilation system.

▶ *1971 FORD 400" ENGINE SURGE & HESITATION CORRECTION NOTE* — Correct such a condition as follows:

1) Replace the Bi-metal Sensor Switch in the air cleaner with part No. DOZF-9E607-B. Use a new spring and gasket.

2) Replace the carburetor main metering jets with No. 54-S. Check the float level at 13/16" wet.

3) Remove the accelerator pump rod from the carburetor and shorten the rod 1/4". Install the pump rod in the inboard position on the pump lever and in the No. 4 (top) position of the over travel lever.

▶ *1971 FORD PRODUCTION CHANGE ON ACCELERATOR PUMP ROD & NEW PUMP LINK DESIGN, ALL V8 ENGINES W/ 2100-D CARBURETOR* — Correction for stumble and hesitation (as outlined in NOTE above) has been incorporated in production in two stages. To determine if correction has been incorporated in production, proceed as follows:

1) The original rod measured 4 3/8" from the center of one end to the center of the other. If the rod length is now 4 1/8", the rework on the rod (as mentioned above) has already been done. Shortening the rod further should NOT be done.

2) A RED pump rod indicates production line rework. Further shortening of a red pump rod should NOT be done.

3) A GREEN pump rod indicates that redesign of the pump rod and the accelerator pump lever has been performed in production. Shortening or interchanging of the green rod for other colored rods should NOT be done. The accelerator pump lever, at the front of the carburetor has been revised to provide four rod installation locations rather than the two as previously provided. The additional two hole locations, used in conjunction with the four hole locations in the overtravel lever afford complete control of the accelerator pump discharge.

▶ *1971 SURGE OR POOR DRIVE QUALITY CORRECTION* — **Mustang & Cougar W/351" C engine, Mercury W/400" engine.** Vehicles exhibiting this condition can be corrected as follows:

1) Remove air cleaner assembly and tape outside diameter of filter element for a height of 2 1/2" for a distance of 8". Mark the tape "INLET". Install element in air cleaner with taped section centered behind air cleaner element.

2) Remove bi-metal sensor switch and retainer located in air cleaner tray and replace sensor with Part No. DOZZ-9E607-B.

▶ *1971 AMERICAN MOTORS LEAN CONDITION AFTER COLD START & SAG DURING WARM UP NOTE (304" & 360" ENGINES)* — To correct this condition, install Service Kit Part No. 8120390 for carb. 1RA2, or Part No. 8120389 for carb. 1DA2. For installation, follow procedures in Instruction Sheet provided in kit. *NOTE — Before making initial choke valve clearance, fast idle cam screw MUST be turned counterclockwise 3 full turns.* Carb. 1DA2 (revised with this correction made), entered production at Engine Code **403H26**. Carburetor model 1RA2A (service replacement for **1RA2**) does not require any modification.

1970-72 FORD (MOTORCRAFT) 2100-D 2-BARREL (Cont.)

► *1971 AMERICAN MOTORS DISCONTINUED DASHPOT (304" & 360" V8) NOTE* – Dashpot has been eliminated on these models effective with Engine Code 312H07 (304") and with Engine Code 401N13 (360"). Present curb idle speed setting eliminates the need for dashpot assembly.

► *1972 AMERICAN MOTORS ROUGH IDLE (304" & 360" V8) CORRECTION NOTE* – If condition continues after tune-up, use a small hose as a listening device and listen for a vacuum hiss at rear base of carburetor adapter. If hiss is heard, remove PCV valve and plug valve opening. If hiss becomes louder, remove the carburetor and inspect underside of adapter for "drill breakout". If drill breakout is present, replace adapter. If not, use new gaskets and install and adjust carburetor.

► *1971 AMERICAN MOTORS VACUUM LEAK AT BASE OF CARBURETOR (304" & 360" V8) NOTE* – When dashpot usage was discontinued on Carb. models 1DA2 and 1RA2, the carburetor base was revised by relocating the throttle bore slot for choke modulator vacuum.

This revision may cause a vacuum leak through the hole in the carburetor base which was formerly used for locating the dashpot bracket. The leak can usually be detected by a whistling noise. This condition will be encountered only on carburetors having no dashpot or throttle stop solenoid.

Correction may be made by installing a screw in the vacant hole, followed by an adjustment of curb idle speed and mixture.

CARBURETOR IDENTIFICATION

Ford Motor Co. – Carburetor number prefix and suffix (example D1AF-BA) is stamped on tag attached to carburetor by one air horn screw. First letter of second line on tag ("A" etc.) indicates design changes which may affect parts replacement (other letters on this line are assembly code, designating time of manufacture).

American Motors & Jeep – Carburetor code letters (see listing above and corresponding part number) are stamped on tag attached to carburetor by one bowl cover screw.

DESCRIPTION

Two barrel downdraft types with automatic choke. Carburetors are of same basic design used on previous models with only minor modifications. Note the following:

Choke Modulator Diaphragm Assembly (1970-71) – New diaphragm assembly installed on air horn flange under air cleaner. Diaphragm stem is linked to choke shaft lever to provide initial choke opening (choke pull-down adjustment). This assembly replaces choke vacuum piston used on previous carburetor models.

Idle Limiter Caps (1970-72) – Plastic caps installed on idle mixture adjusting screws to limit range of adjustment for exhaust emission control. Do not remove or deform caps, and make certain ears on caps contact stops on carburetor body to provide positive stops for mixture screw adjustment range.

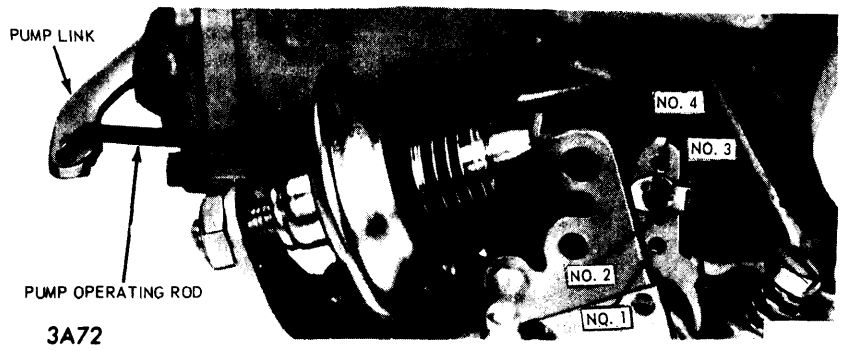
Staged Choke (1972 Ford Motor Co.) – New for 1972, the Staged Choke System utilizes a bi-metal sensor and a series of diaphragms to pull open the choke plate within 15-60 seconds. The system operates only during times when underhood temperatures are above approximately 60°F. Instructions for adjusting the system are given under "Adjustments" in this article.

ADJUSTMENT

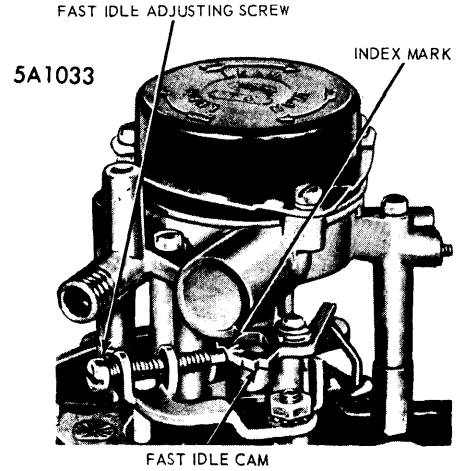
Idle Speed & Mixture

►*NOTE – Do not attempt to adjust or tamper with idle mixture screws locked in position with plastic limiter caps. If limiter caps and idle mixture screws are removed for carburetor overhaul, fuel bowl or throttle body replacement, special procedure is required to correctly readjust idle mixture screws.*

Ford Motor Co. (All Models) – Stabilize engine and underhood temperatures by running engine at 1500 RPM for a minimum of 20 minutes (with fast idle screw on kickdown step of fast idle cam). With engine at normal operating temperature with choke valve wide open, place automatic transmission selector lever in Drive, turn headlights on high beam (to place alternator under load), turn air conditioner OFF (when used), make certain air cleaner installed. *(NOTE – If necessary to remove air cleaner for adjustment, final idle speed and mixture setting must be checked with air cleaner installed).* Adjust solenoid throttle positioner when used *(CAUTION – Solenoid lead must be connected so that solenoid energized)* or throttle stop screw for correct hot engine idle speed (see Specifications), then turn both idle mixture adjusting screws equally



ACCELERATION PUMP ADJUSTMENT



FAST IDLE SPEED ADJUSTMENT

1970-72 FORD (MOTORCRAFT) 2100-D 2-BARREL (Cont.)

inward or clockwise for smoothest possible idle within range of adjusting screw limiters. Recheck idle speed and repeat idle mixture adjustment where necessary. On carburetors with solenoid throttle positioner, make additional adjustment as follows: Disconnect solenoid lead at bullet connector, adjust throttle stopscrew for lower idle speed (see Specifications), then connect solenoid lead and open throttle slightly by hand. Solenoid plunger should follow throttle lever and remain in extended position to maintain original higher idle speed setting when throttle released.

American Motors & Jeep – With engine at normal operating temperature, automatic transmission in Drive, and air conditioner OFF, adjust solenoid throttle positioner when used or idle stop screw for correct hot idle speed. Starting from full rich (counterclockwise) position of idle mixture screws, turn both screws clockwise in equally until idle speed drops off, then turn both screws out until highest engine RPM is obtained at the "lean best idle" setting. If idle speed changed more than 30 RPM during this adjustment, reset idle speed to specified RPM and repeat idle mixture adjustment. Readjust idle speed to specifications. If equipped with solenoid, disconnect solenoid lead at bullet connector, adjust throttle stopscrew for lower idle speed (500 RPM), then connect solenoid lead and open throttle slightly by hand. Solenoid plunger should follow throttle lever and remain in extended position to maintain original higher idle speed setting when throttle is released.

Fast Idle Speed

Ford Motor Co. (All Models) – With engine at normal operating temperature, position fast idle adjusting screw on kick-down step of fast idle cam, then adjust screw for specified RPM (see Specifications). *NOTE – Carburetors used on 351"C and 400" engines have two piece fast idle lever with tang on intermediate lever contacting fast idle cam (fast idle screw contacts lug on intermediate lever).*

American Motors & Jeep – Set fast idle speed with engine at normal operating temperature and fast idle screw against index mark (second) step of fast idle cam. Adjust to correct RPM (see Specifications) by turning fast idle screw.

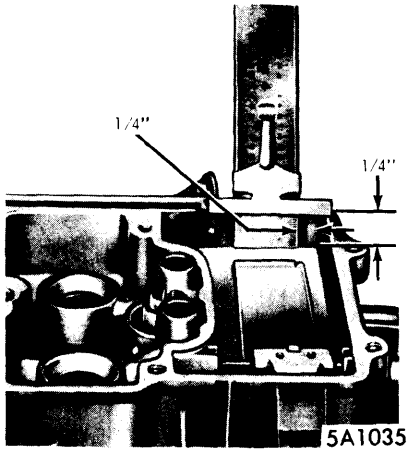
Accelerating Pump Stroke

All Carburetors – *Pump lever has two holes (inner and outer) and pump over-travel lever on throttle shaft has four holes (No. 1 hole nearest throttle lever) for pump rod engagement.* Connect pump rod in **inner** hole of pump lever on all carburetors and connect rod in specified hole of over-travel lever (see Specifications).

► *1971 FORD PRODUCTION CHANGE NOTE* – The accelerator pump lever was revised to provide four hole positions for the connector rod. The connector rod length was changed from 4 3/8" to 4 1/8". The additional two holes provide more precise control and tailoring of accelerator pump discharge.

FUEL LEVEL (WET FLOAT ADJUSTMENT)

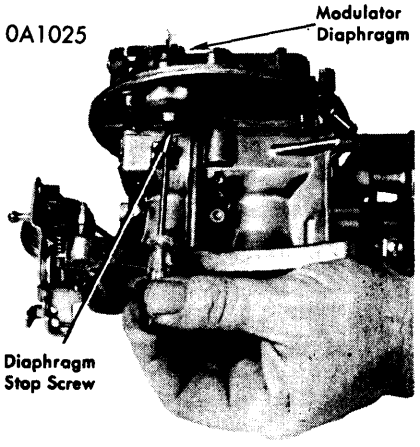
With air horn and gasket installed temporarily on carburetor, idle engine for at least three minutes to stabilize fuel level in bowl, then remove air horn and gasket. With engine idling, use "T" scale to measure from top machined surface of bowl to surface of fuel at a point at least 1/4" away from any vertical surface. If fuel level not correct (see Specifications), stop engine and adjust by bending float tab toward or away from inlet needle as required *(CAUTION – Do not allow float tab to contact needle while making adjustment).* Repeat entire procedure to recheck fuel level. After adjustment completed, install air horn and gasket and make necessary carburetor adjustments.



FUEL LEVEL ADJUSTMENT

Initial Choke Valve Clearance (Choke Valve Pull-Down)

Ford Motor Co. (All Carburetors) – With engine at normal operating temperature, remove air cleaner, loosen choke housing cover screws and position cover and thermostatic spring 90° in the **Rich** direction, disconnect and remove heat tube from choke housing, back off fast idle adjusting



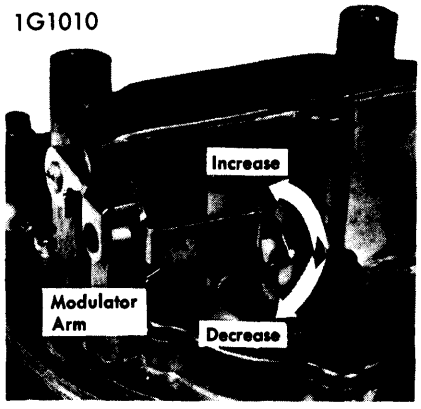
INITIAL CHOKE VALVE CLEARANCE ADJUSTMENT (FORD MOTOR CO.)

1970-72 FORD (MOTORCRAFT) 2100-D 2-BARREL (Cont.)

screw one full turn. Start engine and check clearance between lower edge of choke valve and air horn wall using correct size gauge (see Specifications). If clearance not correct, turn diaphragm stopscrew (located on underside of choke diaphragm housing on lower face of air horn flange) clockwise to decrease clearance or counterclockwise to increase clearance as required. Connect heat tube but do not reset automatic choke until after fast idle cam linkage adjustment completed.

1970 American Motors – Loosen choke cover retaining screws and rotate cover and thermostatic spring 1/4 turn (90°) counterclockwise in a RICH direction. Tighten cover screws to retain this setting. Open throttle to allow choke to close completely and press down on choke diaphragm arm until diaphragm is bottomed in housing. Measure clearance between lower edge of choke valve and air horn wall, using correct size gauge (see Specifications). If clearance not correct, turn diaphragm stopscrew (located on underside of choke diaphragm housing on lower face of air horn flange) clockwise to decrease clearance or counterclockwise to increase clearance. Do not reset automatic choke to specifications until fast idle cam linkage adjustment has been completed.

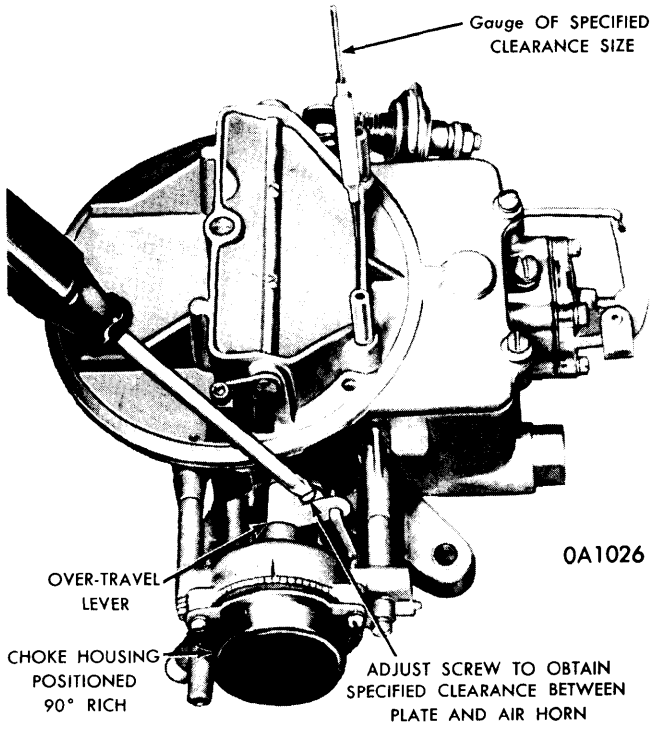
1971-72 American Motors & Jeep – Remove choke shield, loosen choke cover retaining screws to allow movement of the cover. Rotate the choke cover 1/4 turn (90°) counterclockwise (rich) from index and tighten the retaining screws. Disconnect the choke heat inlet tube. Align the fast idle screw with the second step (index) and against the shoulder of the high step. Start engine without moving accelerator linkage. Turn the fast idle cam adjusting screw counterclockwise three full turns. Adjust the initial choke valve clearance (measured between lower edge of choke valve and air horn wall) to specified setting. Grasp the modulator arm securely with a pair of pliers and twist toward front of carburetor to increase clearance and toward the rear of carburetor to decrease clearance. *CAUTION – Use extreme care while twisting the modulator arm to avoid damaging the nylon piston rod of the modulator assembly.* After completing initial choke valve clearance adjustment, stop engine, perform fast idle cam linkage adjustment and connect the choke heat tube and the choke shield.



INITIAL CHOKE VALVE CLEARANCE ADJUSTMENT (AMER. MTRS. & JEEP)

Fast Idle Cam Linkage

All Carburetors – With choke cover set 90° in the Rich direction (as for initial choke clearance adjustment above), press down on fast idle cam lever until fast idle cam index mark (at second step of cam on Amer. Mtrs. & Jeep; kick-down step of cam on Ford Motor Co.) is aligned with fast idle screw (or tang of intermediate lever on Ford 351"C & 400"). Check clearance between lower edge of choke valve and air horn wall using gauge of correct size (see Specifications). If clearance not correct, adjust by turning fast idle cam lever screw (see illustration – this is not the fast idle speed adjusting screw) clockwise to increase clearance or counterclockwise to decrease clearance as required. Reset automatic choke to specifications.



FAST IDLE CAM LINKAGE ADJUSTMENT

STAGED CHOKE VACUUM CONTROL ASSEMBLY

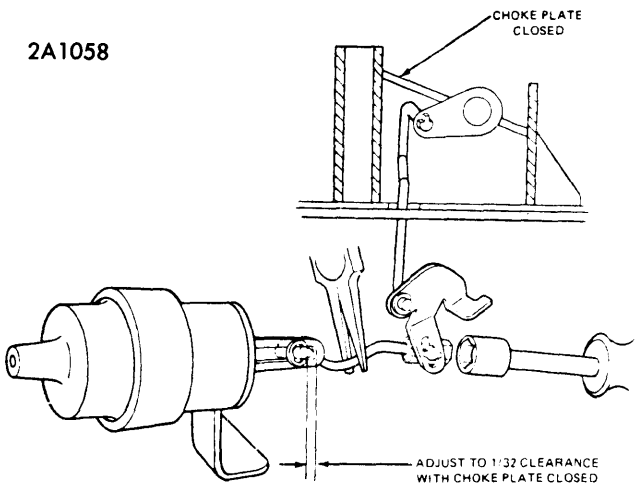
Ford Motor Co. (1972) – Adjustment necessary only if control unit has been replaced, carburetor overhauled or a choke adjustment made. The choke pulldown and fast idle cam adjustments must be made before this adjustment is performed. Adjustment procedure is as follows:

a choke adjustment made. The choke pulldown and fast idle cam adjustments must be made before this adjustment is performed. Adjustment procedure is as follows:

1) With choke plate fully closed, measure the clearance between the forward edge of the choke link and the edge of the slot in the choke vacuum lever (see illustration). Clearance should be 1/32".

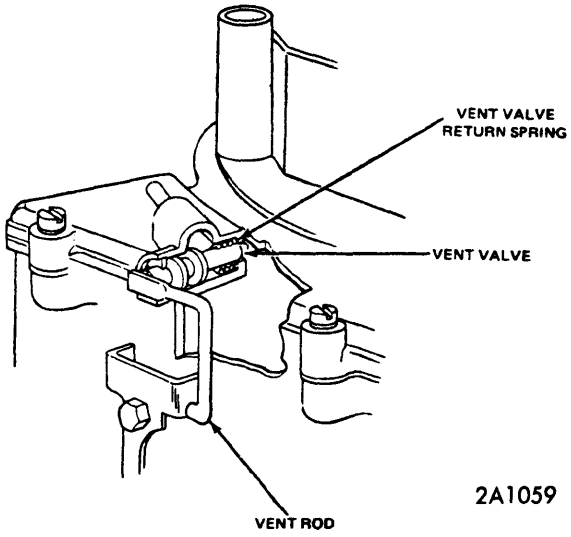
1970-72 FORD (MOTORCRAFT) 2100-D 2-BARREL (Cont.)

2) If adjustment is required, grasp the choke link with pliers to prevent flexing, and with a ¼" socket turn the nylon adjuster in or out to obtain proper clearance.



STAGED CHOKE ADJUSTMENT

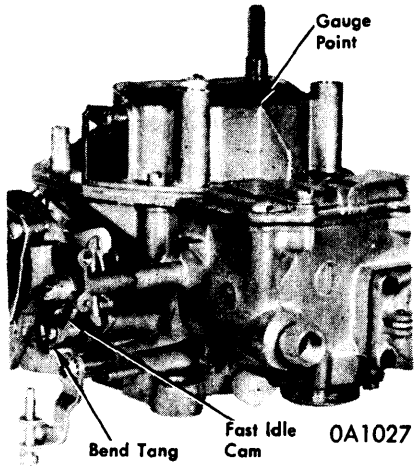
1) Fully depress the vent valve into the valve bore. Measure the clearance between the flat on the vent rod and the fully seated valve. Clearance should be 3/32" ±1/64".



BOWL VENT VALVE ADJUSTMENT

Unloader

All Carburetors – With throttle valves wide open apply light closing pressure to choke valve, use gauge of correct size (see Specifications) to measure clearance between lower edge of choke valve and air horn wall. Adjust by bending tang on fast idle speed lever on throttle shaft as required.

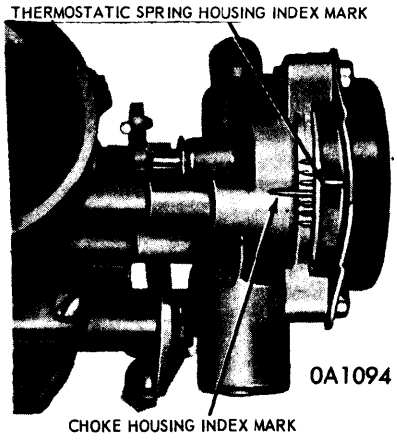


UNLOADER ADJUSTMENT

EXTERNAL FUEL BOWL VENT VALVE

Ford Motor Co. (1972) – The fuel vowl is vented through an external vent connected by a hose to the fuel evaporation carbon canister. Adjust the vent valve as follows:

2) If adjustment is required, bend the vent rod at the point where it contacts the accelerator pump lever (see illustration).



AUTOMATIC CHOKE ADJUSTMENT

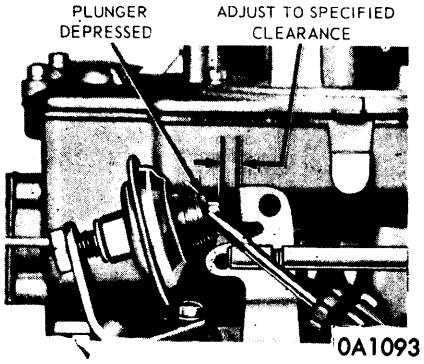
Automatic Choke

All Carburetors – Loosen choke cover retaining screws and rotate cover and thermostatic coil assembly in "Rich" or "Lean" direction to align reference mark on cover with correct scale graduation on housing (see Specifications). *NOTE – "Index" setting is with reference mark on cover aligned with longer center mark on housing.*

1970-72 FORD (MOTORCRAFT) 2100-D 2-BARREL (Cont.)

Dashpot

All Carburetors (So Equipped) – With throttle valves closed in curb idle position, fully depress dashpot plunger and measure clearance between end of plunger stem and throttle valve lever. If clearance not correct (1/8"), adjust by loosening locknut and turning dashpot in or out of mounting bracket.

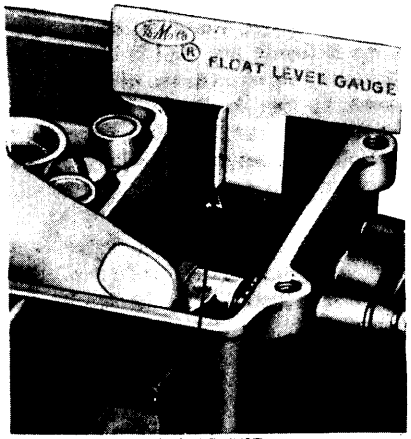


DASHPOT ADJUSTMENT

Float Level (Dry Float Adjustment)

NOTE – This is a preliminary adjustment only. Fuel level (wet float adjustment) should be checked after carburetor installed on engine.

All Carburetors – With air horn and gasket removed, raise float by pressing lightly on float lever tab to seat inlet needle, use "T" scale to measure from top machined surface of bowl to top of float at free end (1/8" from end and 5/16" in from side of float). If this distance not correct (see Specifications), adjust by bending float tab toward or away from needle as required *(CAUTION – Do not allow float tab to contact needle while making adjustment as Viton tipped needle may be damaged).*



DRY FLOAT LEVEL ADJUSTMENT

OVERHAUL

Disassembly

Air Horn – 1) Remove air cleaner anchor screw and automatic choke control rod retainer. Remove air horn attaching screws, lockwashers, carburetor I.D. tag, then remove air horn and gasket. Remove choke control rod by loosening screw securing choke shaft lever to choke shaft. Remove rod from air horn and slide plastic dust seal out of air horn.

2) Remove choke diaphragm assembly, then if necessary to remove choke plate, remove staking marks on attaching screws and remove screws. Remove choke plate by sliding it out of the shaft from the top of the air horn, then remove shaft from air horn.

Automatic Choke – 1) Remove fast idle cam retainer, thermostatic choke spring housing screws and then remove clamp, housing and gasket.

2) Remove choke housing assembly retaining screws, choke housing assembly, gasket and the fast idle cam rod and cam lever. Remove choke lever retaining screw and washer, then remove choke lever and fast idle cam lever.

Main Body – 1) Pry float shaft retainer from fuel inlet seat with a screwdriver, then remove float, float shaft retainer and fuel inlet needle assembly. Remove retainer and float shaft from float lever.

2) Remove fuel inlet needle, seat, filter screen, and main jets. Remove booster venturi screw (accelerator pump discharge), air distribution plate, booster venturi and gasket. Invert main body and catch accelerating pump discharge weight and ball in hand. Remove accelerator pump operating rod from over-travel lever and retainer by pressing the ends of the retainer together, while at the same time, pressing the rod away from the retainer until it is free, then remove rod and retainer.

3) Remove accelerating pump cover attaching screws, pump cover, diaphragm assembly and spring. If necessary to remove Elastomer valve, grasp firmly and pull it out; if valve tip broke off during removal, be certain to remove it from fuel bowl. Elastomer valve must always be replaced whenever it has been removed from carburetor.

4) Invert main body and remove power valve cover and gasket then remove valve with a box wrench, along with gasket. Remove idle fuel mixture adjusting needles and springs, then remove limiters from needles. If necessary, remove nut and washer securing fast idle adjusting lever assembly to throttle shaft and remove lever assembly. Remove anti-stall dashpot or solenoid. If necessary to remove throttle plates, scribe throttle plates along shaft and mark each plate and its corresponding bore for reassembly. Slide throttle shaft from main body.

Cleaning & Inspection

Clean all parts, except accelerating pump diaphragm,power valve, secondary operating diaphragm, and anti-stall dashpot, in a suitable solvent. Check all parts for wear, damage, nicks, burrs, or traces of foreign material. Blow out all passages with compressed air. Replace parts as necessary.

Reassembly

Use all new gaskets, reverse disassembly **procedure and** note the following:

1970-72 FORD (MOTORCRAFT) 2100-D 2-BARREL (Cont.)

Throttle Valve Installation – Refer to scribed lines and marks made at disassembly and install throttle valves with attaching screws snug (not tight), close valves and check fit by holding assembly up to a light (little or no light should show between valve edges and bore). Tap valves lightly to centralize them, then tighten and stake screws securely while supporting shaft on a metal bar or a block of wood.

Choke Valve Installation – Install choke valve with attaching screws snug (not tight), check valve fit and free movement by moving valve from closed to open position (binding can be corrected by grinding edge of valve), then tighten screws securely while holding valve closed. Stake screws while supporting with a metal bar or block of wood.

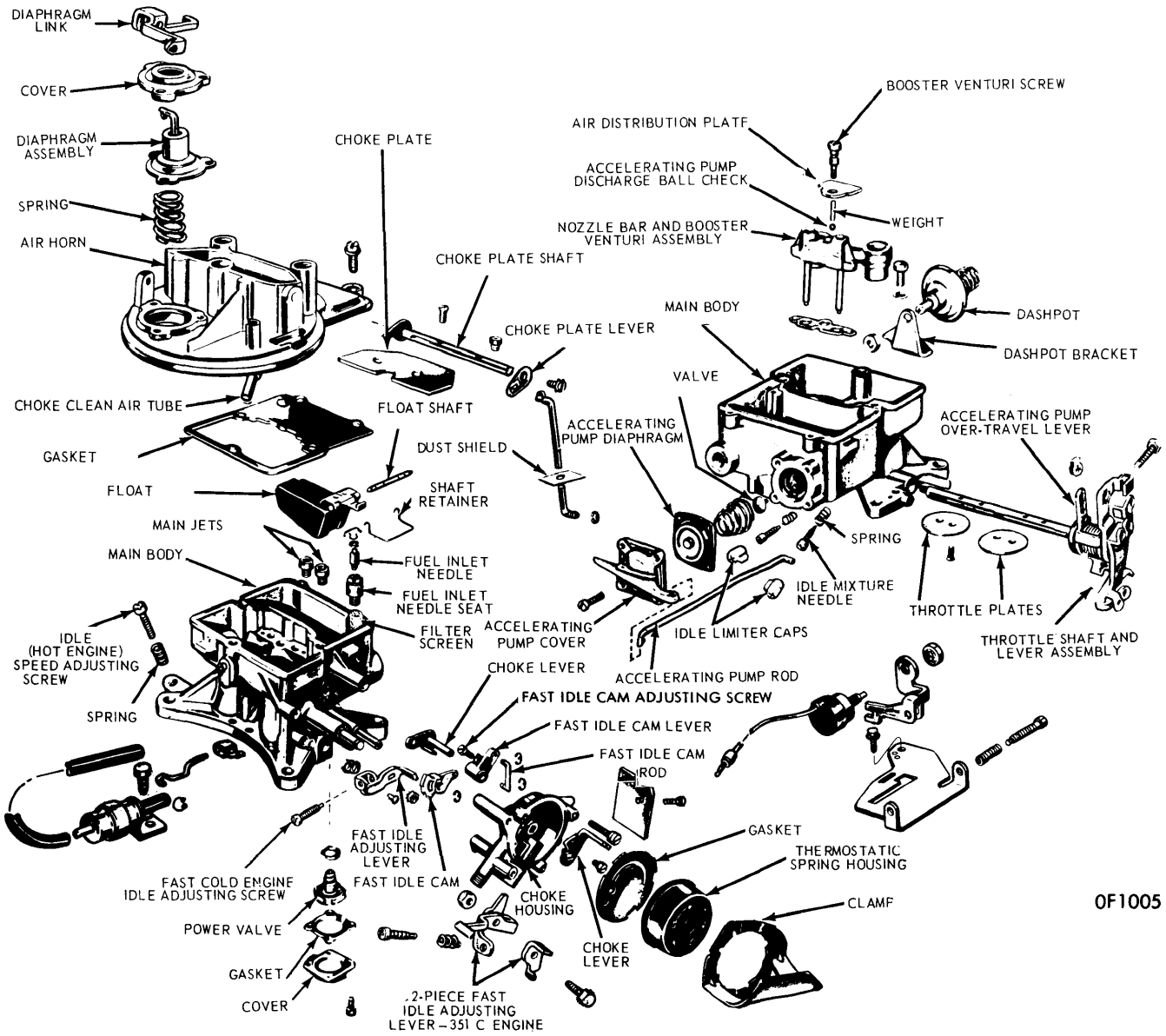
Choke Valve Rod & Seal Installation – Assemble choke rod seal between two brass washers and slide them into position on seal retainer, insert choke rod through seal and air horn to engage choke shaft lever clevis nut. *NOTE – Rod is adjusted during "Choke Valve Pull-Down" adjustment.*

Accelerating Pump Elastomer Valve Installation – Lubricate tip of new valve and insert valve tip in center hole in pump cavity, then use needle nosed pliers inserted in fuel bowl to pull valve in until it is fully seated, cut off valve tip at retaining shoulder and remove tip from fuel bowl.

Accelerating Pump Diaphragm Installation – Position return spring on boss in pump chamber, assemble diaphragm and cover and install two cover screws that do not retain vent valve bracket. Insert a new plug in vent rod, and install vent rod and bracket assembly on pump.

Idle Mixture Screw & Limiter Cap Installation – Install idle mixture needles and springs. Turn screws in until lightly seated, then back out 1½ turns (Ford Motor Co.), 2 turns (American Motors & Jeep), for an initial adjustment. NOTE – Idle limiter caps should not be installed until final idle mixture adjustment is made.

Power Valve Cover Installation – Use new gasket and position cover so that limiter stops are in position to provide positive stops for tabs on idle mixture screw limiter caps.



FORD MODEL 2100-D 2-BARREL CARBURETOR ASSEMBLY