1966-67 CARTER AFB 4-BARREL

1966 MODELS

	Carter Carb. No.	
BUICK	Synchro-mesh	Auto. Trans.
340" V8 Without A.I.R.	4056S	4055S
With A.I.R.		4061S
400" V8 Without A.I.R.	4179S	4180S
With A.I.R.	4060S	4181S
401" V8 Without A.I.R.	4054S	4053S
With A.I.R.	4060S	4059S
425" V8 ⑤		Front 4050S
		Rear 4051S
CADILLAC		
Std. (Without A.I.R.)		4168S
With Air Cond.		4169S
A.I.R. Engines		4170S
With Air Cond.		4171S
CHRYSLER, IMPERIAL, DART, DODGE, PLYMOUTH, VALIANT		
273" V8	4119S	4120S
With "CAP"	4121S	4122S
383" V8	4130S	4131S
With "CAP"	4132S	4133S
426" & 440" V8	4130S	4131S
With "CAP"	4136S	4137S
426" Hemi-Head Eng.	Front 4139S	Front 4139S
	Rear 4140S	Rear 4140S
LINCOLN		
Std. Without Thermactor or Air Cond.		①4148S
With Air Cond		②4147S
With Thermactor		③4205S
With Thermactor & Air Cond		④4204S
PONTIAC		
389" V8 Without A.I.R.	4033S	4034S
With A.I.R.	4041S	4030S
421" V8 Without A.I.R.	4033S	4037S
PONTIAC TEMPEST		
326" HO V8 Without A.I.R.	4035S	4036S
With A.I.R.		4031S
389" GTO V8 Without A.I.R.	4033S	4034S
With A.I.R.	4041S	4030S
RAMBLER AMERICAN		
290" V8 (10.0-1 Compr.)	4250S	4250S

1967 MODELS

BUICK		
340" V8 (No A.I.R.)	4332S	4331S
(With A.I.R.)		4334S
CHRYSLER, IMPERIAL, DART, DODGE, PLYMOUTH, VALIANT		
273" V8 (No "CAP")	4294S	4295S
(With "CAP")	4304S	4305S
383" V8 (No "CAP")	4298S	4299S
(With "CAP")	4309S	4310S
440" V8 (Std. 350 HP)		
(With "CAP") ⑥	4311S	4312S
440" V8 (High Perf. 375 HP)		
(No "CAP")	4326S	4327S
(With "CAP")	4328S	4329S
426" V8 Hemi-Head Engine		
(No "CAP") Front	4139S	4139S
Rear	4140S	4140S
	4143S	4143S
(With "CAP") Front	4324S	4324S
Rear	4325S	4325S or 4402S

1967 MODELS (Continued)

	Carter Carburetor No.	
LINCOLN	Synchro-mesh	Auto. Trans.
Std. Engine (No Thermactor)		⑦4363S
With Air Cond.		⑧4362S
Thermactor Engine		⑨4361S
With Air Cond		⑩4360S
PONTIAC		
400" V8 (Except Grand Prix)		
(No A.I.R.)	4243S	4242S
(With A.I.R.)	4245S	4244S
400" V8 Grand Prix (No A.I.R.)		4413S
TEMPEST		
326" HO V8 (No A.I.R.)	4243S	4246S
(With A.I.R.)	4245S	4248S
RAMBLER AMERICAN		
290" V8 (No Air Guard)	4352S	
(With Air Guard)	4353S	
RAMBLER REBEL, MARLIN, & AMBASSADOR		
343" V8 (No Air Guard)	4216S	4354S
(With Air Guard)	4258S	4358S

① - Lincoln No. C6VF-9510-B.
② - Lincoln No. C6VF-9510-A.
③ - Lincoln No. C6VF-9510-K.
④ - Lincoln No. C6VF-9510-J.
⑤ - Wildcat & Riviera Gran Sport Dual Carb. Option.
⑥ - Holley 4-Barrel Carburetor on engines without "CAP"
⑦ - Lincoln No. C7VF-9510-D.
⑧ - Lincoln No. C7VF-9510-C.
⑨ - Lincoln No. C7VF-9510-B.
⑩ - Lincoln No. C7VF-9510-A.

►CHANGES, CAUTIONS, CORRECTIONS

►*"A.I.R.", "THERMACTOR" & "AIR GUARD" CARBURETOR NOTE:* These carburetors are used on engines with air injection reactor exhaust emission control systems and are special units with different jet calibrations and adjustment specifications.

►***"CAP" CARBURETOR NOTE:*** **These "CAP" carburetors are special units used on cars with "Cleaner Air Package" and require special adjustment procedures for Idle Speed & Mixture adjustment and Fast Idle Speed adjustment.**

►*1966 BUICK ROUGH IDLE & POOR PERFORMANCE CORRECTION:* Terne coated-steel plate must be installed between carburetor aluminum throttle body and mounting gasket on intake manifold to seal off exhaust gas in manifold exhaust gas channel (omission of plate will allow exhaust gas to foul up the choke housing, leak into intake manifold, and blow out through vacuum advance and crankcase vent lines). When correcting above complaint, make certain plate is installed (plate and gasket can be observed where they project at front corners of carburetor).

►*1966 BUICK FLAT SPOT, HESITATION, OR POOR DRIVEABILITY CORRECTION (A.I.R. Engine Cars with Carter AFB 4059S, 4060S, 4061S, 4181S Carbs.): On early cars, make corrections as listed below. NOTE - These changes made in production on later cars.*

Accelerating Pump Stroke - Engage connector rod in **inner** hole of pump arm.

Automatic Choke Setting - Change choke setting to following settings (1 notch richer): 340" Eng. (4061S) - 2 Rich, 400", & 401" Engs. (4059S, 4060S, 4181S) - 1 Rich.

Intake Manifold Gasket (400" & 401" Auto. Trans. Engines) - Install Synchro-mesh Trans. engine gasket which

1966-67 CARTER AFB 4-BARREL (Continued)

has larger heat holes (this gasket can be identified by 1/4" punched hole in projecting corner of gasket).

►*1966 BUICK STALLING AFTER STARTING CORRECTION (All Models):* Make certain that correct starting technique used (push accelerator pedal to floor once only to allow choke to close and position fast idle cam, do not tap throttle again until engine begins to pick up speed, then tap throttle to position fast idle cam on warm-up step to prevent excessive speed during prolonged warm-up). Check the following adjustments: Fast Idle Speed, Fast Idle Cam Position, Choke Piston Linkage, and Automatic Choke Setting. Make certain choke valve operates freely and is barely closed at 80°F. *NOTE* - For repeated complaints, choke may be set not more than 2 Notches Richer than specified setting (richer setting may result in car not starting in extreme cold weather due to overchoking).

►*1966 BUICK 401" ENGINE FLATNESS & HESITATION DURING WARM-UP CORRECTION:* On cars with carburetors having code letter prior to "B" on tag, correct this complaint by installing Choke Baffle Plate, Part No. 1372400, as follows: Install baffle with ¼" raised diameter area in ¼" bore in choke housing so that thermostatic coil tang projects through small hole in outer baffle. When installing choke cover, open throttle slightly to clear fast idle cam, rotate choke cover until choke valve closes, then rotate cover until index mark lines up and tighten cover screws. Check by moving choke valve from full open to closed position (any interference indicates that baffle not properly located). *NOTE - Carburetors with code letter "B" or later on tag have this baffle installed.*

►*1966 CADILLAC FUEL TANK VENT CAUTION:* Cars before No. 124828 have fuel tank vented through gas cap and vented caps (stamped VENTED) must be used on these cars. Later cars have fuel tank vented through a vent pipe.

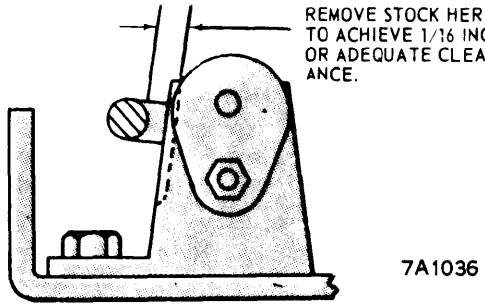
►*CADILLAC ENGINE NOT IDLING:* Steel shim must be installed between carburetor throttle body and upper carburetor mounting gasket. If engine will not idle, make certain this shim installed.

►*1966 LINCOLN ALTITUDE OPERATION CONVERSION:* If car is consistently operated in high altitude regions (5,000 ft. or greater), carburetor should be converted for high altitude operation by replacing standard carburetor metering rod with special Altitude Metering Rod, Lincoln Part No. C6VY-9A526-B.

►*1966 LINCOLN POOR FUEL ECONOMY CORRECTION:* To correct customer complaints, fuel economy can be improved by installing leaner metering rods, Lincoln Part No. C3VY-9A526-B, and changing Choke Piston Linkage setting to .090-.110" (superseding previous specification of .100-.120"). *NOTE - Carburetors with above changes can be identified by daub of blue paint on fuel inlet boss.*

►*1966 LINCOLN HARD COLD STARTING & POOR FUEL ECONOMY CORRECTION:* This condition may be caused by binding condition between choke rod and choke lever resulting from crimping at bend of lever. Remove and inspect rod for deformation at the bend and correct by using a file and sandpaper to smooth up rod.

►*1967 LINCOLN CARBURETOR ACCELERATOR ROD STICKING OR BINDING CORRECTION (Cars with Automatic Speed Control):* If this trouble noted on cars built prior to 9/26/66, remove air cleaner and check for inadequate clearance between accelerator rod and speed control cable bracket (see illustration) by moving accelerator rod rearward toward firewall and releasing slowly. Clearance between rod and cable bracket must be at least 1/16" for free travel of the rod. Disconnect rod and grind or file stock from bracket as shown to provide clearance.



ACCELERATOR ROD & CABLE BRACKET CLEARANCE CHECK & REWORK

►*1966 PONTIAC & TEMPEST FUEL STARVATION CORRECTION:* If car starts and then "runs out of gas" in cold areas, install new Intake Needle & Seat Assembly, Part No. 9785780, stainless steel type (replaces former brass needle).

►*1966 PONTIAC & TEMPEST IMPROPER CHOKE OR THROTTLE OPERATION CORRECTION:* May be caused by carburetor throttle lever binding against fast idle connecting rod. Check by operating throttle lever and noting any interference between lever and rod. Correct by filing or grinding 1/8" from inside edge of throttle lever in area affected.

CARBURETOR IDENTIFICATION

Carter carburetor number is stamped on tag attached to carburetor by an air horn screw. A double letter suffix ("SA", "SB", etc.) indicates changes in design or specifications from basic "S" model. Standard carburetors have **triangular** tag, A.I.R. carburetors have **square** tag, Chrysler "CAP" carburetors have **green** tag.

DESCRIPTION

Four barrel downdraft type of same design used on previous models. Chrysler Corp. carburetors have an externally mounted Vacuum Diaphragm Assembly instead of the conventional choke vacuum piston and use a separate well type automatic choke linked to the choke valve lever.

Buick Dual Carburetors - These carburetors are "Idle Air Bypass" types similar to other carburetors except as follows: Front carburetor has fixed idle orifices (idle speed and mixture adjustments made on rear carburetor only) and does not have an Automatic Choke or Fast Idle mechanism (adjustment data does not apply).

Dodge & Plymouth Hemi-Head Carburetors - These carburetors are similar to other Chrysler carburetors except as follows: Front carburetor does not have an Automatic Choke or Fast Idle mechanism (adjustment data does not apply). Rear carburetor has an Integral Automatic Choke with vacuum piston located in choke housing (Choke Vacuum Diaphragm not used).

ADJUSTMENT

►*BUICK IDLE SPEED ADJUSTING NOTE:* Transmission idle stator switch must be closed when making idle speed adjustment. Check by disconnecting switch connector. If idle speed does not decrease, switch was not closed. Adjust idle stator switch and readjust idle speed.

►*CHRYSLER CORP. "CAP" CARBURETOR IDLE MIXTURE ADJUSTING SCREW CAUTION: Do not attempt to remove these screws from throttle body. Screws have limited travel and will be broken if removed.*

►*CADILLAC IDLE SPEED ADJUSTING NOTE:* Parking brake cannot be applied with transmission selector lever in "D" (Drive) position unless vacuum release is disconnected. Disconnect parking brake vacuum hose at

1966-67 CARTER AFB 4-BARREL (Continued)

1966 CARBURETOR ADJUSTMENT SPECIFICATIONS

Carter Carb. No.	Idle Speed (Engine RPM) Hot ①	Idle Speed (Engine RPM) Fast	Fast Idle (Off Eng.) Setting	Initial Idle Mix. Setting ②	Float Level Setting③	Float Drop Setting③	Accel. Pump Travel	Auto. Choke Setting	Unloader Setting
4030S	600 ⑩	2500 ⑤	.027"	1	1/4"	23/32"	35/64" ⑬	1 Rich	5/32"
4031S	600 ⑩	2500 ⑤	.027"	1	5/16"	23/32"	35/64" ⑬	1 Rich	5/32"
4033S	⑪	2500 ⑤	.027"	1	5/16"	23/32"	35/64" ⑬	1 Rich	5/32"
4034S	⑫	2800 ⑤	.031"	1	5/16"	23/32"	35/64" ⑬	1 Rich	5/32"
4035S	⑪	2500 ⑤	.027"	1	3/8"	23/32"	35/64" ⑬	1 Rich	5/32"
4036S	⑫	2800 ⑤	.031"	1	1/4"	23/32"	35/64" ⑬	1 Rich	5/32"
4037S	⑫	2800 ⑤	.031"	1	5/16"	23/32"	35/64" ⑬	1 Ricb	5/32"
4041S	700 ⑩	2500 ⑤	.027"	1	5/16"	23/32"	35/64" ⑬	1 Rich	5/32"
4050S	None	None	None	None	7/32"	3/4"	1/2" ⑬	None	None
4051S	500 ⑪	600 ⑦	.030"	1	9/32"	3/4"	1/2" ⑭	Index	7/32"
4053S	550 ④	600 ⑦	.033"	3/4	15/64"	3/4"	7/16" ⑬	Index	7/32"
4054S	500 ④	600 ⑦	.029"	3/4	15/64"	3/4"	7/16" ⑬	Index	7/32"
4055S	600 ④	600 ⑦	.033"	1	11/64"	3/4"	7/16" ⑬	1 Rich	5/32"
4056S	550 ④	600 ⑦	.026"	1	11/64"	3/4"	7/16" ⑬	Index	5/32"
4059S	550 ④	600 ⑦	.033"	3/4	15/64"	3/4"	7/16" ⑬	1 Rich ⑯	7/32"
4060S	500 ④	600 ⑦	.029"	3/4	15/64"	3/4"	1/2" ⑭	1 Rich ⑯	7/32"
4061S	550 ④	600 ⑦	.033"	1	11/64"	3/4"	7/16" ⑬	2 Rich ⑰	5/32"
4119S	600	625 ⑦	.013"	1-2	7/32" ⑨	3/4"	7/16" ⑬	2 Rich	7/32"
4120S	600	700 ⑦	.020"	1-2	7/32" ⑨	3/4"	7/16" ⑬	2 Rich	7/32"
4121S	700	1500 ⑥	.018"	1-2	7/32" ⑨	3/4"	7/16" ⑬	Index	7/32"
4122S	650	1600 ⑥	.018"	1-2	7/32" ⑨	3/4"	7/16" ⑬	Index	7/32"
4130S	500	700 ⑦	.020"	1-2	7/32" ⑨	3/4"	7/16" ⑬	2 Rich	3/8"
4131S	500	700 ⑦	.025"	1-2	7/32" ⑨	3/4"	7/16" ⑬	2 Rich	3/8"
4132S	650	1500 ⑥	.018"	1-2	7/32" ⑨	3/4"	7/16" ⑬	Index	5/16"
4133S	600	1500 ⑥	.018"	1-2	7/32" ⑨	3/4"	7/16" ⑬	Index	5/16"
4136S	650	1500 ⑥ ⑳	.018"	1-2	7/32" ⑨	3/4"	7/16" ⑬	Index ㉑	5/16"
4137S	600	1500 ⑥ ⑳	.018"	1-2	7/32" ⑨	3/4"	7/16" ⑬	Index ㉑	5/16
4139S	750	None	None	1 1/2	5/16"	3/4"	7/16" ⑬	None	None
4140S	750	1500 ⑥	.030"	1 1/2	7/32"	3/4"	7/16" ⑬	1 Rich	1/4"
4147S	450-475	1600 ⑥ ⑧	.026"	1 1/2	5/32" ⑱	23/32"	15/32" ⑬	1 Rich	1/8"
4148S	450-475	1600 ⑥ ⑧	.026"	1 1/2	5/32" ⑱	23/32"	15/32" ⑬	1 Rich	1/8"
4168S	480-500	1700-1750 ⑤	.022"	2 1/2	3/8" ⑲	15/16"	15/32" ⑭	Index	15/16"
4169S	480-500	1700-1750 ⑤	.022"	2 1/2	3/8" ⑲	15/16"	15/32" ⑭	Index	15/16"
4170S	550	1700-1750 ⑤	.022"	2 1/2	1 3/8"	15/16"	31/64" ⑭	1 Rich	
4171S	550 ⑩	1700-1750 ⑤	.022"	2 1/2	3/8" ⑲	15/16"	15/32" ⑭	Index	15/16"
4179S	500 ⑪	600 ⑦	.029"	3/4	15/64"	3/4"	1/2" ⑭	1 Rich	7/32"
4180S	550 ④	600 ⑦	.033"	3/4	15/64"	3/4"	1/2" ⑭	Index	7/32"
4181S	550 ④	600 ⑦	.033"	3/4	15/64"	3/4"	1/2" ⑭	1 Rich ⑯	7/32"
4204S	500-525	1600 ⑥	.026"	1 1/2	5/32" ⑱	23/32"	15/32" ⑬	1 Rich	1/8"
4205S	500-525	1600 ⑥	.026"	1 1/2	5/32" ⑱	23/32"	15/32" ⑬	1 Rich	1/8"
4250S	550 ㉒	2000 ⑤	.016"	3/4-1 1/2	5/16"	2" ㉓	5/16" ㉔	2 Rich	9/64"

① - Auto. Trans. in Drive. Air Conditioner ON (except as noted).
② - Turns open from a lightly seated position.
③ - Measured to top of float except as noted.
④ - Set 50 RPM higher on Air Conditioned Cars (except A.I.R. Cars) with Air Cond. OFF.
⑤ - With fast idle screw on HIGH step of cam.
⑥ - With fast idle screw on SECOND step of cam.
⑦ - With fast idle screw on LOW step of cam.
⑧ - Increase 200 RPM for temperatures of 0° or lower.
⑨ - Viton needle (3/16" with resilient seat).
⑩ - Air Conditioner OFF.
⑪ - 600 RPM (Without Air Cond.), 700 RPM (With Air Cond.). Air Conditioner OFF.
⑫ - 500 RPM (No Air Cond.) 575 RPM (With Air Cond. OFF).
⑬ - With pump rod in CENTER hole of pump arm.
⑭ - With pump rod in TOP (inner) hole of pump arm.
⑮ - Viton needle (17/64" with resilient seat).
⑯ - Supersedes Index (See Changes, Cautions, Corrections)
⑰ - Supersedes 1 Rich (See Changes, Cautions, Corrections).
⑱ - Resilient seat (3/16" with solid seat).
⑲ - Brass seat (11/32" with resilient seat).
⑳ - 1400 RPM (Dodge & Plymouth 440" V8).
㉑ - 2 Rich (Dodge & Plymouth 440" V8).
㉒ - In Neutral. 500 RPM (With Air Cond. ON).
㉓ - To bottom of float at toe (free) end.
㉔ - To bottom of "S" link in pump shaft.

1966-67 CARTER AFB 4-BARREL (Continued)

1967 CARBURETOR ADJUSTMENT SPECIFICATIONS

Carter Carb. No.	Idle Speed (Engine RPM) Hot ①	Idle Speed (Engine RPM) Fast	Fast Idle Cam Clearance	Initial Idle Mix. Setting ②	Float Level ③ Setting	Float Drop ③ Setting	Accel. Pump Travel ⑬	Auto. Choke Setting	Unloader Setting
4139S	750	None	None	1-2	9/32"	3/4"	7/16"	None	None
4140S	750	1500 ⑥	.030"	1-2	7/32"	3/4"	7/16"	1 Rich	1/4"
4216S	600	2000 ⑤	.....	3/4-1 1/2	5/16"	2" ㉓	3/8" ㉔	2 Rich	9/32"
4242S	500 ⑫	2800 ⑤	.....	½-3	5/16"	23/32"	3/8" ㉔	1 Rich	5/32"
4243S	600 ⑪	2500 ⑤	.....	½-3	3/8"	23/32"	3/8" ㉔	1 Rich	5/32"
4244S	600 ⑩	2500 ⑤	.....	1-2½	1/4"	23/32"	3/8" ㉔	1 Rich	5/32"
4245S	700 ⑩	2500 ⑤	.....	1-2½	5/16"	23/32"	3/8" ㉔	1 Rich	5/32"
4246S	500 ⑫	2800 ⑤	.....	½-3	5/16"	23/32"	3/8" ㉔	1 Rich	5/32"
4248S	600 ⑩	2500 ⑤	.....	2-3½	5/16"	23/32"	3/8" ㉔	1 Rich	5/32"
4258S	600	1400 ⑥	.....	3/4-1 1/2	5/16"	2" ㉓	3/8" ㉔	1 Rich	5/32"
4294S	600	625 ⑦	#50	1-2	5/16"	3/4"	7/16"	2 Rich	7/32"
4295S	600	700 ⑦	#50	1-2	5/16"	3/4"	7/16"	2 Rich	7/32"
4298S	500	700 ⑦	#50	1-2	5/16"	3/4"	7/16"	2 Rich	3/8"
4299S	500	700 ⑦	#50	1-2	5/16"	3/4"	7/16"	2 Rich	3/8"
4304S	700	1500 ⑥	#50	1-2	5/16"	3/4"	7/16"	Index	7/32"
4305S	650	1600 ⑥	#50	1-2	5/16"	3/4"	7/16"	Index	7/32"
4309S	650	1400 ⑥	#50	1-2	5/16"	3/4"	7/16"	Index	5/16"
4310S	600	1400 ⑥	#50	1-2	5/16"	3/4"	7/16"	Index	5/16"
4311S	650	1400 ⑥	#50	1-2	5/16"	3/4"	7/16"	Index	5/16"
4312S	650	1400 ⑥	#50	1-2	5/16"	3/4"	7/16"	Index	5/16"
4324S	750	None	None	1-2	9/32"	3/4"	7/16"	None	None
4325S	750	1800 ⑥	#50	1-2	7/32"	3/4"	7/16"	1 Rich	1/4"
4326S	650	800 ⑥	#50	1-2	7/32"	3/4"	7/16"	Index	3/8"
4327S	650	700 ⑥	#50	1-2	7/32"	3/4"	7/16"	Index	3/8"
4328S	650	1600 ⑥	#50	1-2	5/16"	3/4"	7/16"	Index	3/8"
4329S	650	1400 ⑥	#50	1-2	5/16"	3/4"	7/16"	Index	3/8"
4331S	550 ④	600 ⑦	.....	1	1 13/32" ㉓	3/4"	7/16"	1 Rich	5/32"
4332S	550 ④	600 ⑦	.....	1	1 13/32" ㉓	3/4"	7/16"	Index	5/32"
4343S	750	1500 ⑥	#50	1-2	7/32"	3/4"	7/16"	1 Rich	1/4"
4344S	600 ⑩	600 ⑦	.....	1	1 13/32" ㉓	3/4"	11/32" ⑭	2 Rich	5/32"
4352S	600	2000 ⑤	.....	3/4-1 1/2	5/16"	2" ㉓	3/8" ㉔	Index	9/64"
4353S	600	1400 ⑥	.....	3/4-1 1/2	5/16"	2" ㉓	3/8" ㉔	2 Rich	9/64"
4354S	600 ③	2000 ⑤	.....	3/4-1 1/2	5/16"	2" ㉓	3/8" ㉔	2 Rich	9/32"
4358S	600 ③	1600 ⑥	.....	3/4-1 1/2	5/16"	2" ㉓	3/8" ㉔	Index	5/32"
4402S	750	1800 ⑥	.....	1-2	5/16"	23/32"	7/16"	1 Rich	1/4"
4413S	500 ⑫	2800 ⑤	.....	1/2-3	5/16"	23/32"	3/8" ㉔	1 Rich	5/32"
Lincoln ⑨									
4360S ㉖	500	1600 ⑥	.026"	1 1/2-3	3/16" ㉕	23/32"	17/32" ⑭	Index	1/8"
4361S ㉗	500	1600 ⑥	.026"	1 1/2-3	3/16" ㉕	23/32"	17/32" ⑭	Index	1/8"
4362S ㉘	475	1600 ⑥	.026"	1/2-2	3/16" ㉕	23/32"	15/32" ⑬	1 Rich	1/8"
4363S ㉙	475	1600 ⑥	.026"	1/2-2	3/16" ㉕	23/32"	15/32" ⑬	1 Rich	1/8"

① - Auto. Trans. in Drive, Air Conditioner ON (except as noted).
② - Turns open from a lightly seated position.
③ - Measured from top of float (except as noted).
④ - Set 50 RPM higher on Air Conditioned Cars (except A.I.R. Cars) with Air Cond. OFF.
⑤ - With fast idle screw on HIGH step of cam.
⑥ - With fast idle screw on SECOND step of cam.
⑦ - With fast idle screw on LOW step of cam.
⑧ - Auto. Trans. in Neutral. Air Cond. ON.
⑨ - Lincoln part number Prefix & Suffix designation.
⑩ - With Air Conditioner OFF .
⑪ - 600 RPM (without Air Cond.), 700 RPM (with Air Cond.). Air Conditioner OFF.
⑫ - 500 RPM (without Air Cond.), 600 RPM (with Air Cond.). Air Conditioner OFF.
⑬ - To top of plunger shaft with pump rod in CENTER hole of pump arm (except as noted).
⑭ - Pump rod in TOP (inner) hole of pump arm.
㉓ - To bottom of float at toe (free) end.
㉔ - To bottom of "S" link in pump plunger shaft.
㉕ - Brass seat only (5/32" with resilient seat).
㉖ - Lincoln No. C7VF-9510-A. ㉘ - Lincoln No. C7VF-9510-C.
㉗ - Lincoln No. C7VF-9510-B. ㉙ - Lincoln No. C7VF-9510-D.

1966-67 CARTER AFB 4-BARREL (Continued)

diaphragm and connect vacuum gauge to this hose. To make certain transmission stator blades are set at correct angle, remove pink wire from contact fitting on transmission downshift switch and connect to white wire fitting with alligator clip to activate stator switch. After idle speed adjustment completed, restore original stator switch connections. *NOTE* - Engine will not idle unless carburetor properly installed with steel shim placed above upper carburetor mounting gasket.

► *CADILLAC IDLE MIXTURE ADJUSTING NOTE (Cars with Automatic Level Control):* Disconnect vacuum hose to compressor and tape "T" fitting opening when making idle adjustment.

► *CHRYSLER, DODGE, & PLYMOUTH IDLE SPEED ADJUSTING NOTE:* Turn headlight high beam on. On automatic transmission cars, loosen locknut in sliding link of carburetor throttle rod so that stop in transmission will not interfere with carburetor throttle lever adjustment. After idle speed adjustment completed, move sliding link to rear against the stop and tighten the locknut.

► *LINCOLN IDLE SPEED ADJUSTING NOTE:* Turn on headlights to place alternator under load during idle speed adjustment. Disconnect vacuum line at parking brake release vacuum power unit and plug this line (parking brake cannot be applied with transmission in "D" unless vacuum line disconnected). Make adjustments with air cleaner removed and Air Conditioner OFF.

► *RAMBLER IDLE SPEED ADJUSTING NOTE:* Adjust idle speed with transmission in neutral (all transmissions) and with air cleaner in place. On air conditioned cars, Air Conditioner must be turned ON. Make certain that hot idle Compensator valve is closed.

Idle Speed & Mixture (One Carb. Engines)

Chrysler Corp. "CAP" Carburetors - *Exhaust Analyser must be used to assure correct fuel mixture setting.*

All Cars (except Chrysler Corp. with "CAP" Carburetors) - *NOTE - Idle compensator valve must be held closed while adjusting idle speed. On carburetors with Idle Air Bypass system, turning the idle air bypass screw (to adjust engine idle speed) will change idle mixture setting. Readjust idle mixture setting after engine idle speed adjustment has been completed.* If an initial adjustment is required for engine warm-up, turn both idle mixture screws in until lightly seated then back screws out the number of turns indicated in specification table. On carburetors with conventional idle speed screw, turn screw in sufficiently to slightly open throttle valves. On carburetors with Idle Air Bypass system, turn idle screw outward 1½-3½ turns from a lightly seated position. With engine at normal operating temperature, choke valve wide open and fast idle inoperative, proceed as follows: Connect vacuum gauge and tachometer, then adjust idle speed to the correct engine RPM (see specifications) with throttle stopscrew (or Idle Air Bypass screw). Adjust each idle mixture screw for smooth idle at highest vacuum reading and engine RPM. Then make final setting on each car model as follows:

Buick - With engine idling at correct idle speed, adjust idle mixture screws, one at a time, for highest tachometer and vacuum gauge reading, then turn screw in to lean mixture until tachometer reading decreases 20 RPM or vacuum reading drops off ½", turn screw out exactly ¼ turn to richen mixture. If tachometer and vacuum reading do not return to maximum with this setting, continue to turn screw out 1/8 turn at a time until maximum readings are just obtained. If setting changed considerably, recheck other idle mixture screw setting. Recheck idle speed setting. If necessary to readjust idle speed, recheck idle mixture settings. *NOTE* - On A.I.R. cars, it is particularly important to set idle mixture at "lean side of best idle".

Cadillac - After turning idle mixture screw in (clockwise) for highest engine idle RPM, continue to turn screw in until engine speed falls off 20 RPM (lean idle speed fall off), finally turn screw out 1/4 turn (Standard Engine), 1 1/8 turns (A.I.R. Engine). Adjust other idle mixture screw similarly. Check and reset idle speed as necessary, then repeat idle mixture adjustment. Install air cleaner and recheck idle speed. If idle speed not within specifications, repeat idle speed and mixture adjustment.

Chrysler Corp. Cars - With idle mixture screws set for highest engine RPM, turn each mixture adjusting screw in to lean mixture until there is a slight drop in RPM, finally turn screws out just enough to regain the lost RPM (lean as possible mixture setting for smooth idle). Recheck and readjust idle speed setting, then repeat idle mixture adjustment.

Lincoln - With air conditioner off and hot idle compensator held closed, adjust idle speed by turning the idle air bypass screw with transmission in Drive. Turn each idle mixture screw alternately and evenly inward until engine speed begins to drop off from lean mixture, then turn screws outward until engine RPM increases and begins to drop off. On Thermactor cars, this is the final setting. On other engines, turn both idle mixture screws inward for maximum engine idle RPM and smoothness. Final setting of screws may vary ½ turn between the two screws. Recheck idle speed. If necessary to readjust idle speed, repeat idle mixture adjustment.

Pontiac & Tempest - Recheck idle speed. If necessary to readjust idle speed, repeat idle mixture adjustment. *CAUTION - On carburetors with idle air adjusting screw, always recheck idle mixture setting after changing idle air adjusting screw setting.*

Rambler - With transmission in Neutral and Air Conditioner ON (when used), adjust both idle mixture screws equally by turning screws out until engine speed begins to drop off, then turn screws in 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.

Idle Speed & Mixture (Two Carb. Engines)

Buick Wildcat & Riviera - Idle mixture and idle speed adjustments are made on rear carburetor only (front carburetor has fixed idle orifices). Adjust carburetor in same manner as for One Carb. Engines *(see Buick procedure above).*

Dodge & Plymouth Hemi-Head Engines - *Adjust each carburetor in same manner as for "Chrysler Single Carburetor Engines" above.*

Carburetor Interconnecting Linkage (Two Carb. Engines)

Buick Wildcat & Riviera - With choke valve wide open and throttle closed, make certain rear carburetor throttle valves fully closed. With front and rear carburetor throttle valves fully closed, adjust turnbuckle on interconnecting rod until it just contacts trunnion at front carburetor, then back off turnbuckle one turn for proper clearance, tighten locknut. Hold rear throttle rod fully rearward

1966-67 CARTER AFB 4-BARREL (Continued)

adjust front bolt so that throttle levers on both carburetors contact their wide open stops at the same time.

Dodge & Plymouth Hemi-Head Engines - After adjusting throttle linkage, install connector rod assembly (linking carburetor throttles) with slotted end attached to outboard side of inboard lever on rear carburetor. Hold rear carburetor throttle valves in wide open position, loosen locknut and turn adjusting stud in connector rod so that front carburetor throttle valves are also in wide open position, tighten locknut.

Fast Idle Speed (On Engine)

Chrysler Corp. "CAP" Carburetors - *CAUTION - Ignition timing and Distributor Control Valve adjustments must be correct before adjusting fast idle speed. See special "CAP" adjustment procedure.* With air cleaner in place and engine idling at normal operating temperature, open throttle and position fast idle screw on second step of fast idle cam (see illustration). Turn fast idle adjusting screw in or out for correct fast idle speed (see Specifications).

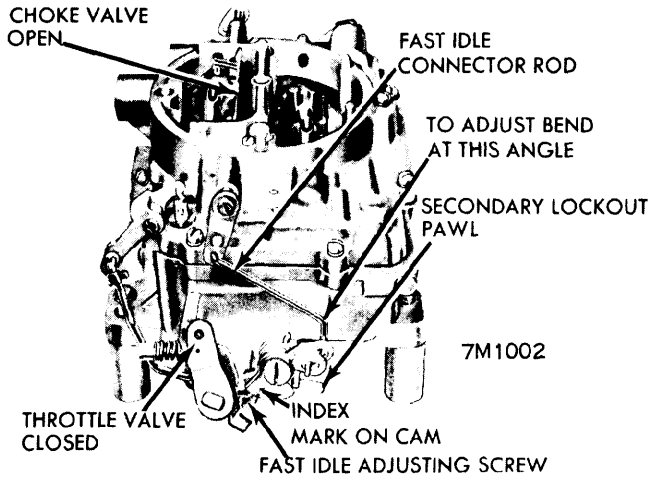
All Cars (except Chrysler Corp. with "CAP" Carburetors) - With engine at normal operating temperature and hot idle speed properly adjusted, rotate fast idle cam so that fast idle screw is on correct step of fast idle cam as listed in the specifications, adjust fast idle screw for correct engine fast idle RPM (see Specifications).

Slow-closing Throttle Dashpot & Idle Speed-Up Controls

See CARBURETOR on car model Tune-Up pages for adjustment (when used).

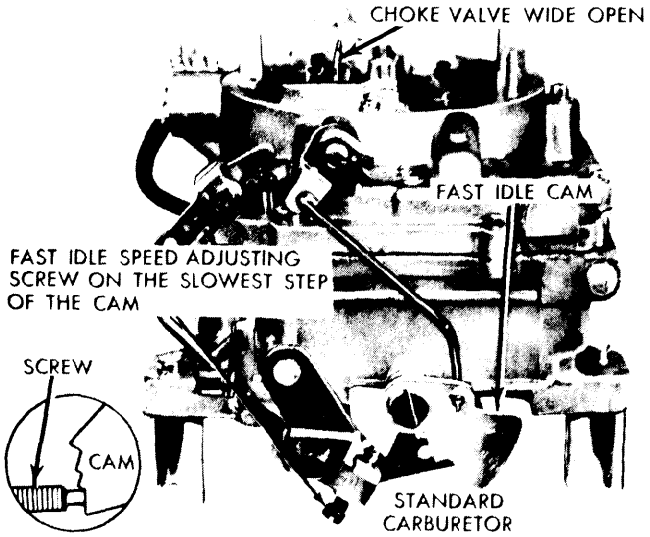
Fast Idle Cam Index (Off Engine)

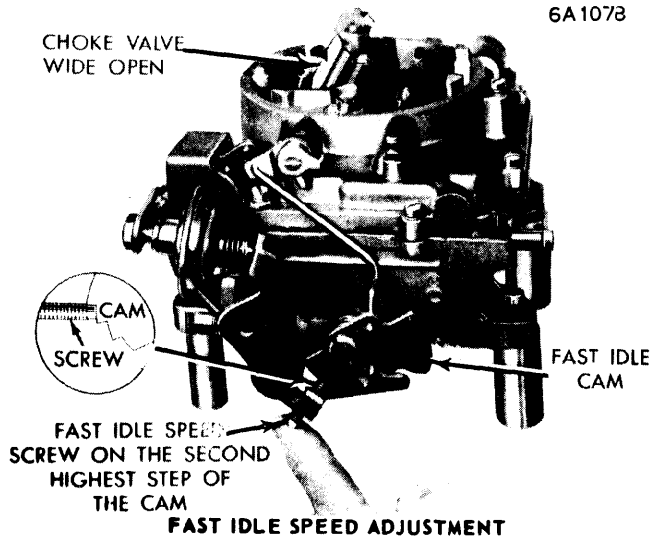
Buick, Pontiac, Tempest - Close choke valve fully, and open throttle valve slightly to permit fast idle cam to rotate to fast idle position. Fast idle adjusting screw should be aligned with index mark on fast idle cam. Adjust by bending fast idle connector rod. *NOTE* - In this position, lug on fast idle cam must clear stop on throttle body (adjust by bending stop lug).



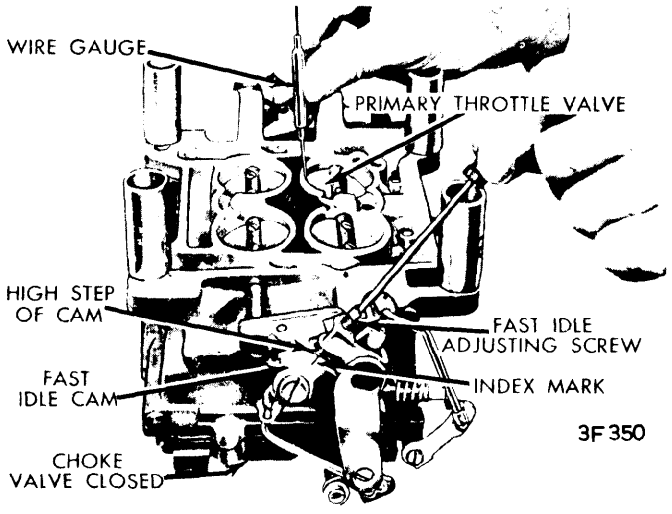
FAST IDLE CAM INDEX ADJUSTMENT (BUICK, PONTIAC, TEMPEST)

Cadillac - With choke valve tightly closed and lug on outer choke shaft lever contacting stop on inner choke shaft lever, center of fast idle screw should be aligned with index mark on fast idle cam. Adjust by bending fast idle connector rod as necessary. With fast idle adjusting screw aligned with index mark on cam, adjust fast idle screw for .022" throttle valve opening or clearance between lower edge of valve and carburetor wall. *(Continued)*



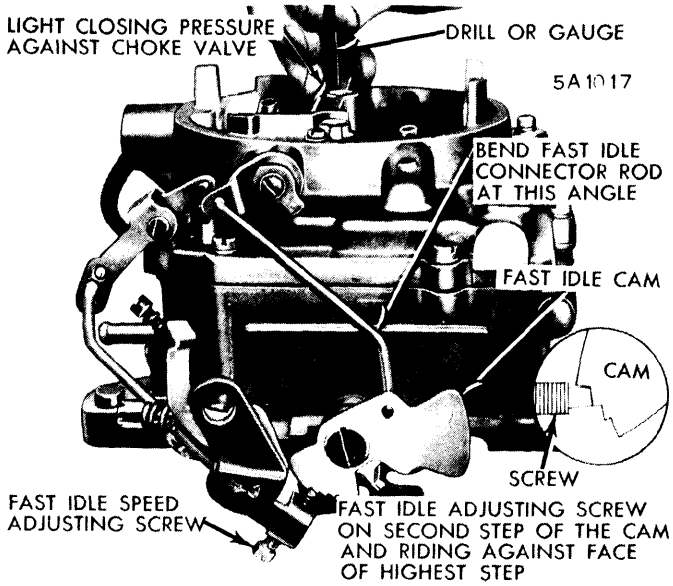


FAST IDLE SPEED ADJUSTMENT (CHRYSLER CORP. CARBURETORS)



FAST IDLE CAM INDEX ADJUSTMENT (CADILLAC - LINCOLN SIMILAR)

1966-67 CARTER AFB 4-BARREL (Continued)



FAST IDLE CAM INDEX ADJUSTMENT (CHRYSLER CORP. CARBURETORS)

Chrysler Corp. Carburetors - Position fast idle adjusting screw on second step of fast idle cam and against shoulder of highest step, move choke valve toward closed position with light pressure. Measure choke valve opening by inserting #50 drill or gauge (1/16") between edge of valve and air horn wall. If slight drag not noted when gauge withdrawn, adjust by bending fast idle connector rod at the angle.

Lincoln - With slight clearance between lug on fast idle cam and stop on flange casting, and inner countershaft lever contacting lug on outer countershaft lever, fast idle adjusting screw should be aligned with index mark on fast idle cam. Adjust by bending fast idle connector rod. If necessary, bend stop lug on fast idle cam. With choke valve and primary throttle valves fully closed, rotate fast idle cam until index mark on cam aligned with center of fast idle screw, turn screw inward until it just contacts the cam, release throttle valves and turn fast idle screw in exactly 1 turn for initial fast idle setting.

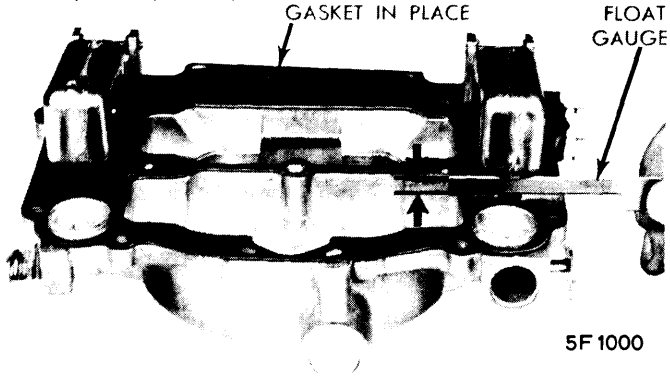
Rambler - With choke valve tightly closed and lug on outer choke shaft lever contacting stop on inner choke shaft lever, center of fast idle screw should be aligned with index mark on fast idle cam. Adjust by bending fast idle connector rod as necessary.

Fast Idle Throttle Valve Clearance (Off Engine)

With choke valve closed and fast idle screw aligned with index mark on fast idle cam (Except Chrysler Corp. Carburetors), fast idle screw on highest step of cam (Chrysler Corp. Carburetors), adjust fast idle screw for correct throttle valve opening or clearance between lower edge of primary throttle valves and carburetor wall. See Specifications. *NOTE* - No adjustment required on Chrysler 4139S or 4324S carburetors.

Bowl Vent Valve

1967 Chrysler Corp. Carburetors - With throttle valves tightly closed, measure clearance between air horn and heel of bowl vent valve (low side of seal) using a 5/32" drill rod or gauge (all carburetors). If clearance not correct, adjust by bending adjusting tang on pivot end of lever as necessary. Readjust bowl vent whenever pump setting changed. *NOTE - Vent valve not used on 4139S, 4140S, 4298S, 4299S, or 4324S carburetors.*



FLOAT LEVEL SETTING (TYPICAL)

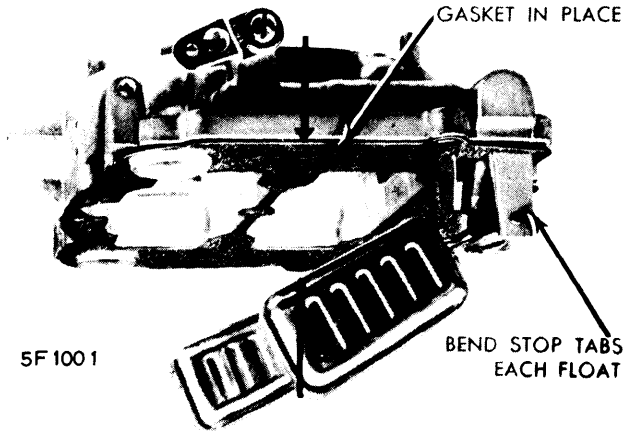
Float Level

►*FLOAT SETTING CAUTION (CARBURETORS WITH RESILIENT INLET NEEDLE SEAT): When bending float lever to adjust float level, do not allow lever to contact inlet needle seat as seat can be compressed enough to cause a false setting. Check float level with weight of float only resting on needle.*

Before making float adjustment, make sure floats are parallel to outer edge of air horn casting. Remove as much clearance as possible between arms of float lever and support lugs on air horn. Arms should be parallel to inner surfaces of supports and float arm should operate freely without excessive clearance on hinge pin. Adjust both primary and secondary floats to same height. With air horn inverted, bowl cover gasket in place, and needle valve seated, measure distance from top of float (or bottom of float as noted in specifications) at outer end to to air horn gasket. If this distance not correct (see Specifications), adjust by bending float arm. *NOTE* - On Pontiac & Tempest, make float measurement in line with first indentation at free end of float.

Float Drop

With bowl cover held upright so that floats hang freely at lower end of travel, measure distance from bowl cover



FLOAT DROP SETTING (TYPICAL)

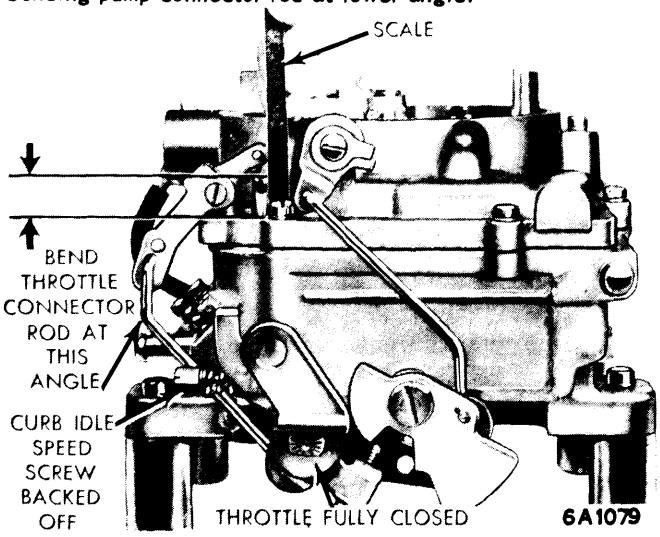
1966-67 CARTER AFB 4-BARREL (Continued)

gasket to bottom of float (or top of float as noted in specifications). If this distance not correct (see Specifications), adjust by bending float stop tab on float brackets.

Accelerating Pump

NOTE - This is a pump stroke (travel) adjustment and not a seasonal setting. On all models with a seasonal setting, pump connector rod must be engaged in correct hole of pump arm (see Specifications).

Back out throttle stopscrew so that throttle valves are fully seated, use a scale to measure distance from top surface of bowl cover to top of pump plunger shaft (All carburetors except as noted in specifications where measurement is made to "S" link in pump plunger shaft). If this distance not correct (see Specifications), adjust by bending pump connector rod at lower angle.



ACCELERATING PUMP STROKE ADJUSTMENT

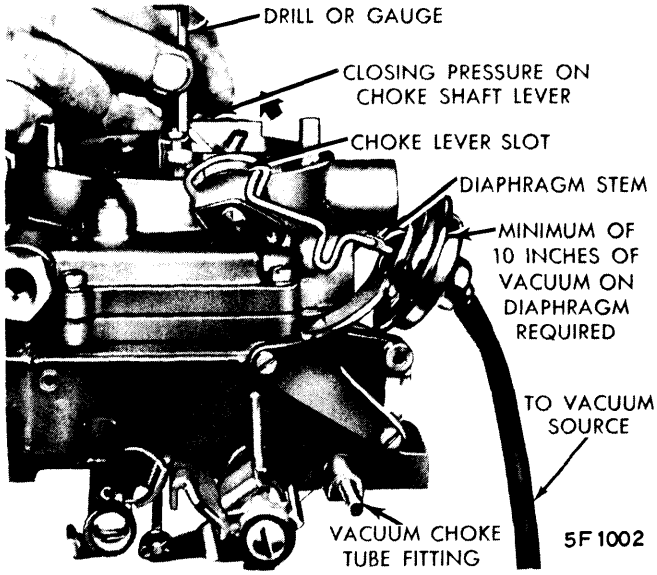
Choke Vacuum Diaphragm (Vacuum Kick)

Chrysler Corp. Carburetors - *A separate vacuum source (distributor tester or another engine) must be used to activate diaphragm for adjustment.* With engine not running, open throttle valve slightly and close choke valve. Disconnect vacuum hose from diaphragm and connect a hose from an independent vacuum source (minimum vacuum 10" of Hg). Insert a drill rod or gauge of correct size (see table below) between choke valve and wall of air horn and apply a slight closing pressure to choke valve shaft to provide least choke valve opening possible without distortion of the diaphragm link (link must travel to end of choke lever slot and compress internal spring before it reaches end of travel). In this position, a slight drag should be felt as drill or gauge is removed. If no drag felt, adjust as follows: Disconnect link from diaphragm stem and choke lever, bend link as required to obtain correct choke opening. *NOTE - Changing length of link .015" will result in .010" change in choke valve opening. Use a 2" micrometer to check length of link.* Install link and recheck adjustment. With no vacuum applied to diaphragm, there should be some clearance between the operating link and the choke lever slot in both open and closed choke valve positions. If there is no clearance in either position, recheck operating link adjustment. Free movement of choke valve between open and closed positions must exist with engine running or stopped. If binding noted, operating link has been improperly bent and should be corrected.

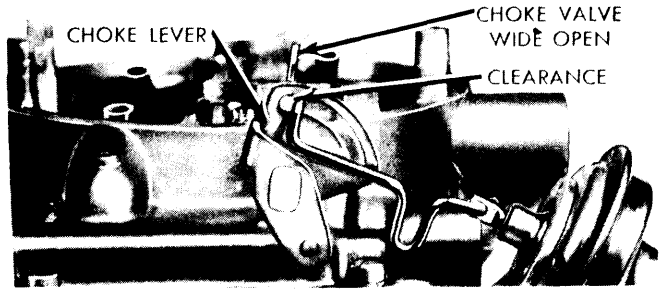
NOTE - Vacuum Kick Diaphragm not used on 4139S, 4140S, 4143S, 4324S, 4325S, 4402S carburetors.

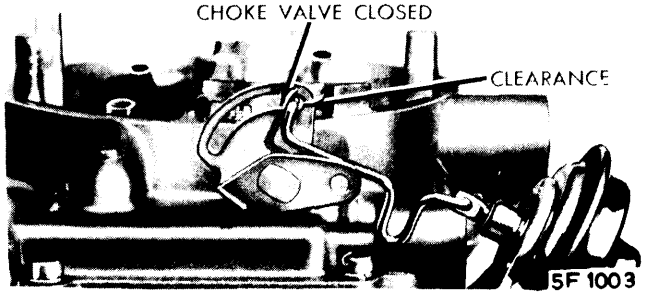
Vacuum Kick Setting

Carburetor No.	Choke Drill or Gauge Size
4119S, 4121S, 4122S	1/8"
4120S	#42 (.0935")
4130S	1/8"
4131S	#35 (.110")
4132S, 4136S	#44 (.086")
4133S, 4137S	#40 (.098")
4294S, 4298S	1/8"
4295S	#42 (.0935")
4299S	#35 (.110")
4304S, 4305S	1/8"
4309S, 4310S, 4311S	#44 (.086")
4312S	1/8"
4326S	#2 (.221")
4327S, 4328S, 4329S	1/8"



CHOKE VACUUM KICK SETTING (CHRYSLER CORP. CARBURETORS)





CHOKE OPERATING LINK CLEARANCES (WITH VACUUM KICK)

1966-67 CARTER AFB 4-BARREL (Continued)

Dashpot (Chrysler "CAP" Carbs. & Man. Trans.)

After idle speed and mixture adjusted, run engine with tachometer attached and open throttle to point where actuating tab on throttle lever just contacts dashpot stem (stem must not be compressed), note tachometer reading. Engine speed should be 2000 RPM. Adjust dashpot by turning it in or out of mounting bracket.

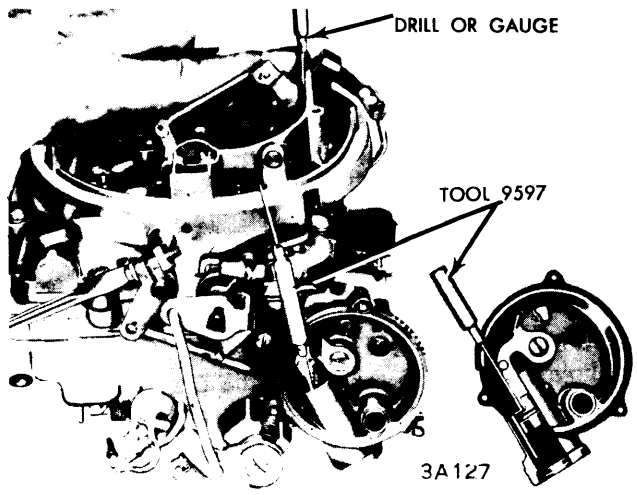
Choke Piston Linkage

NOTE - This adjustment required on carburetors with "Integral Type" automatic choke assemblies with choke vacuum piston. Remove choke cover and coil assembly, then proceed as follows:

Buick, Chrysler, Lincoln, Rambler Carburetors - Bend a .026" wire gauge (T109-189) at a 90° angle approximately 1/8" from end, then open choke valve and insert gauge so that bent portion is between top of slot in piston cylinder and bottom of slot in piston (see illustration). Hold wire gauge in position and close choke valve by pressing on piston lever in choke housing until resistance is felt. Clearance between top of choke valve and wall of air horn should be as indicated in table below. To adjust, bend choke connector rod. *NOTE - If choke shaft has a clamp type lever, loosen clamp screw and rotate lever on shaft, then tighten screw.*

Cadillac Carburetors - With choke coil and cover removed, open throttle valves so fast idle screw clears fast idle cam, close choke valve fully by pressing on piston lever in choke housing. Top of choke piston should be **flush** with top edge of cylinder. To adjust, bend choke connector rod.

Pontiac & Tempest Carburetors - With choke thermostatic coil and cover removed and throttle valves opened so that fast idle screw does not contact fast idle cam, close choke valve fully by pressing on piston lever in choke housing. Top of choke piston should be Flush to 1/64" Below lip of piston cylinder. Adjust by bending choke connector rod.



CHOKE PISTON LINKAGE (TYPICAL)
(WITH INTEGRAL AUTOMATIC CHOKE)

Choke Piston Linkage Setting

Car & Carb.	Choke Valve Clearance
Buick 4053S, 4054S, 4060S	.109"
4055S	.095"
4056S	.082"
4059S	.102"
4061S	.088"
4179S	.135"
4180S	.128"
4181S	.109"
4331S	.085"
4332S	.095"
4344S	.075"
Chrysler 4140S, 4325S, 4343S	1/8"
4402S	5/64"
Lincoln 4147S, 48S; 4204S, 5S	①.090-.110"
4360S, 61S, 62S, 63S	3/32"

① - Supersedes previous setting of .110-.120" for improved fuel economy. See *"Changes, Cautions, Corrections"*.

Automatic Choke

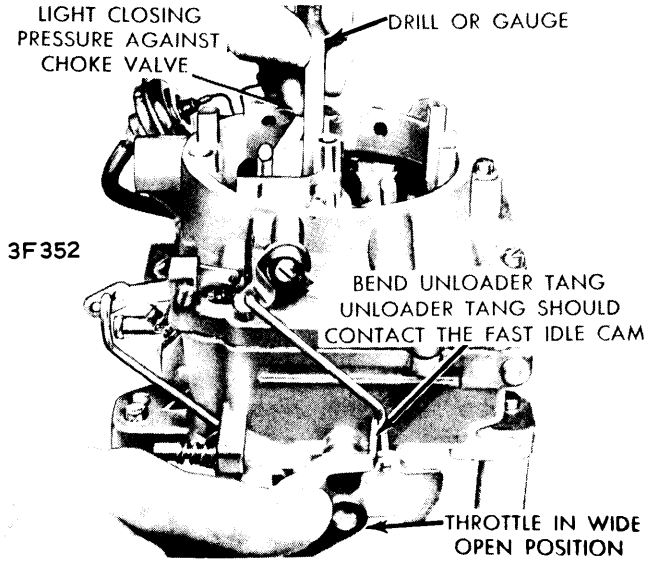
Integral Type - *Adjust choke after Choke Piston Linkage has been adjusted.* Loosen cover screws and rotate thermostatic coil and cover assembly to align reference mark on cover with correct graduation of scale on housing, tighten cover screws. See "Specifications".

Well Type - See "Specifications". *CAUTION - This unit serviced as an assembly. Do not attempt to repair unit or change adjustment.*

Unloader

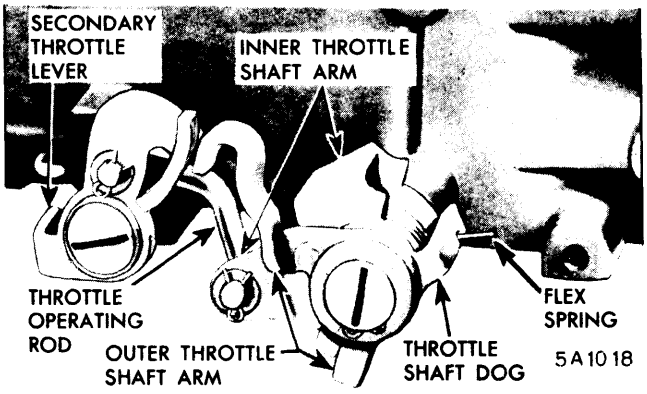
After fast idle cam index adjustment completed, rotate primary throttle valves to wide open position and check choke valve opening between upper edge of valve and air horn wall. Clearance should be as indicated in Specifications. To adjust, bend unloader lip on primary throttle lever.

PONTIAC & TEMPEST UNLOADER CHECKING NOTE - It is recommended that throttle be opened by depressing accelerator pedal forcibly to floor while sitting in driver's seat. This will simulate actual driving conditions and eliminate any variance in linkage or pedal location.



UNLOADER ADJUSTMENT (TYPICAL)

1966-67 CARTER AFB 4-BARREL (Continued)



SECONDARY THROTTLE LINKAGE (TYPICAL)

Secondary Throttle Lever

All Models - See additional adjustment data below. Block choke valve in wide open position. Open primary throttle valves until distance from lower edge of valves to carburetor bore on side opposite idle ports is exactly as shown in table below. Secondary throttle valves should just begin to open at this point. Adjust by bending secondary throttle operating rod.

Car & Carb.	Secondary Throttle Opening Primary Throttle Opening
Buick 4053S, 54S, 59S, 60S	23/64"
4055S, 56S, 61S	21/64"
4179S, 80S, 81S	23/64"
4331S, 32S, 34S	21/64"
Cadillac 4168S, 69S, 70S, 71S	23/64"
Chrysler 4119S, 20S, 21S, 22S, 30S	21/64"
4131S, 32S, 33S, 36S, 37S	21/64"
4139S, 40S, 43S	17/64"
4294S, 95S, 98S, 99S	21/64"
4304S, 5S, 9S, 10S, 11S, 12S	21/64"
4324S, 25S	17/64"
4326S, 27S, 28S, 29S	23/64"
4402S	17/64"
Lincoln 4147S, 48S; 4204S, 5S	15/32"
4360S, 61S, 62S, 63S	15/32"
Pontiac & Tempest 4030S, 31S, 41S	15/64"
4033S, 34S, 35S, 36S, 37S	17/64"
4242S, 46S; 4413S	17/64"
4243S, 44S, 45S, 48S	15/64"
Rambler 4216S, 50S, 58S	7/16"
4352S, 53S, 54S, 58S	7/16"

Buick - With primary throttle valves wide open, secondary throttle valves should be a few degrees from wide open and secondary valves should contact auxiliary throttle valves with auxiliary valves wide open. Bend stop lug on secondary lever as necessary to prevent secondary valves from going past wide open position.

Cadillac - With primary throttle valves in wide open position, secondary throttle valves should be a few degrees from wide open.

Chrysler - Primary and secondary throttle valves should be in full vertical position at wide open throttle. On carburetors with auxiliary throttle valves, upper edge of secondary throttle valves should just contact auxiliary valves with auxiliary valves wide open.

Lincoln - Primary and secondary throttle valves should be in vertical position at wide open throttle. Bend stop lug on secondary lever as necessary to prevent secondary throttle valves from going past wide open position.

Pontiac & Tempest - At wide open throttle position, secondary throttle valves should be a few degrees from wide open and should just contact auxiliary throttle valves with auxiliary valves wide open. Bend stop lug on secondary lever as necessary to prevent secondary throttle valves from going past the wide open position.

Rambler - Primary and secondary throttle valves should be in full vertical position at wide open throttle.

Closing Shoe Clearance

Fully close primary and secondary throttle valves. Clearance between positive closing shoes on primary and secondary throttle levers should be .010-.030" (all carburetors). Adjust by bending shoe on secondary throttle lever.

Secondary Throttle Lockout

Crack throttle valves and manually open and close choke valve. Tang on secondary throttle lever should freely engage notch in lockout dog while barely missing edge of notch. Adjust by bending tang on secondary throttle lever.

CADILLAC NOTE - When making above adjustment, clearance between tang and notch in lockout dog should be .020". Set lockout tang tight against stop on flange casting and partially open secondary throttle valve. Contour clearance between tang on secondary throttle lever and lockout arm should be .026". Adjust by bending arm which contacts flange casting at slot on lockout tang.

LINCOLN NOTE - With choke valve closed, secondary throttle valve opening (measured on high side of valves adjacent to throttle lever) should be .070" with primary throttle valves wide open. Adjust by bending tang on secondary throttle lever.

Auxiliary Throttle Valves

NOTE - Auxiliary throttle valves not used on all models. Velocity valves located above secondary throttle valves. Auxiliary throttle valves should close of own weight with carburetor level. No adjustment required.

OVERHAUL

►*CHRYSLER CORP. "CAP" CARBURETOR IDLE MIXTURE ADJUSTING SCREW CAUTION & REPLACEMENT PROCEDURE: Screws have limited travel and will be damaged or broken if any attempt made to remove them from carburetor. For replacement of damaged or broken screws, refer to "Chrysler Corp. 'CAP' Carter Carburetor Idle Mixture Screw Replacement"*

►***DODGE & PLYMOUTH "HEMI-HEAD" ENGINE CARBURETOR OVERHAUL NOTE:*** Front carburetors on these installations do not have Automatic Choke or Fast Idle mechanism. Disregard data on these items when overhauling these carburetors.

Disassembly

NOTE - When disassembling carburetor, keep PRIMARY and SECONDARY parts separate so they will not be interchanged when carburetor is reassembled.

(Continued)

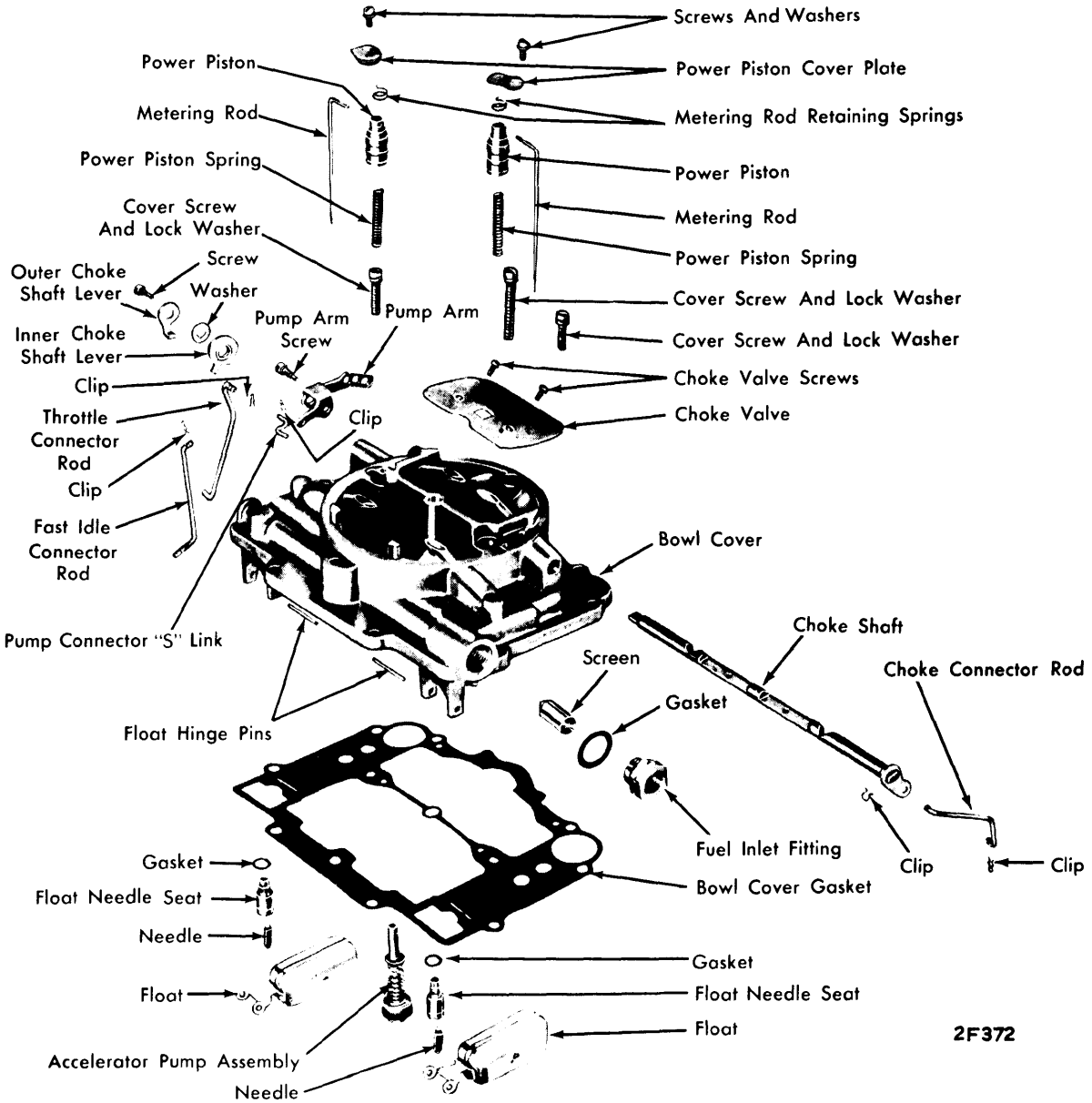
1966-67 CARTER AFB 4-BARREL (Continued)

Disconnect choke connector rod at choke shaft lever (except models with "cross-over" type choke or manual choke), then disconnect throttle connector rod at pump arm, and fast idle connector rod at choke lever. Remove retaining screws from step-up piston and rod cover plates (hold cover down against spring tension), remove covers, lift out piston and rod assemblies, remove springs from piston wells. On carburetors with vacuum kick diaphragm assemblies, disconnect vacuum hose from throttle body and diaphragm, disconnect and remove link from diaphragm plunger stem and choke lever, remove diaphragm and bracket assembly. Remove fuel inlet fitting, gasket, strainer, or filter and spring.

Air Horn - Remove all air horn attaching screws, lift air horn straight up and away from main body to avoid damage to floats. Invert air horn, remove float hinge pins, lift out floats, remove fuel inlet needles, seats and gaskets *(CAUTION - Keep individual float assemblies separate so they may be reinstalled together and in same position).* Disengage pump plunger link, slide pump plunger and spring out of air horn (place plunger in clean gasoline to prevent leather drying out), remove air horn gasket. Take out pump arm pivot screw, remove pump arm and link. If necessary to remove choke valve and shaft, remove choke shaft lever retaining screw from end of shaft, remove outer lever and washer, and inner lever from shaft. Take out choke valve screws and remove choke valve, then slide choke shaft out of air horn.

Automatic Choke - Remove choke cover screws and retainers, remove choke cover and thermostatic coil assembly, gasket, and baffle plate. Remove choke lever attaching screw, rotate lever to remove vacuum piston from cylinder, lift out piston, lever, and link assembly (piston can be removed from link by taking out piston pin). Take out choke housing attaching screws, remove choke housing assembly and O-ring gasket. Remove choke shaft, lever, and rod assembly from housing.

Main Body - Remove pump return spring from pump cylinder. Remove pump discharge nozzle assembly and gasket, then invert carburetor and drop out pump discharge check needle (in passage under pump nozzle). Remove hot idle compensator and gasket *(CAUTION - Use care not to distort or*

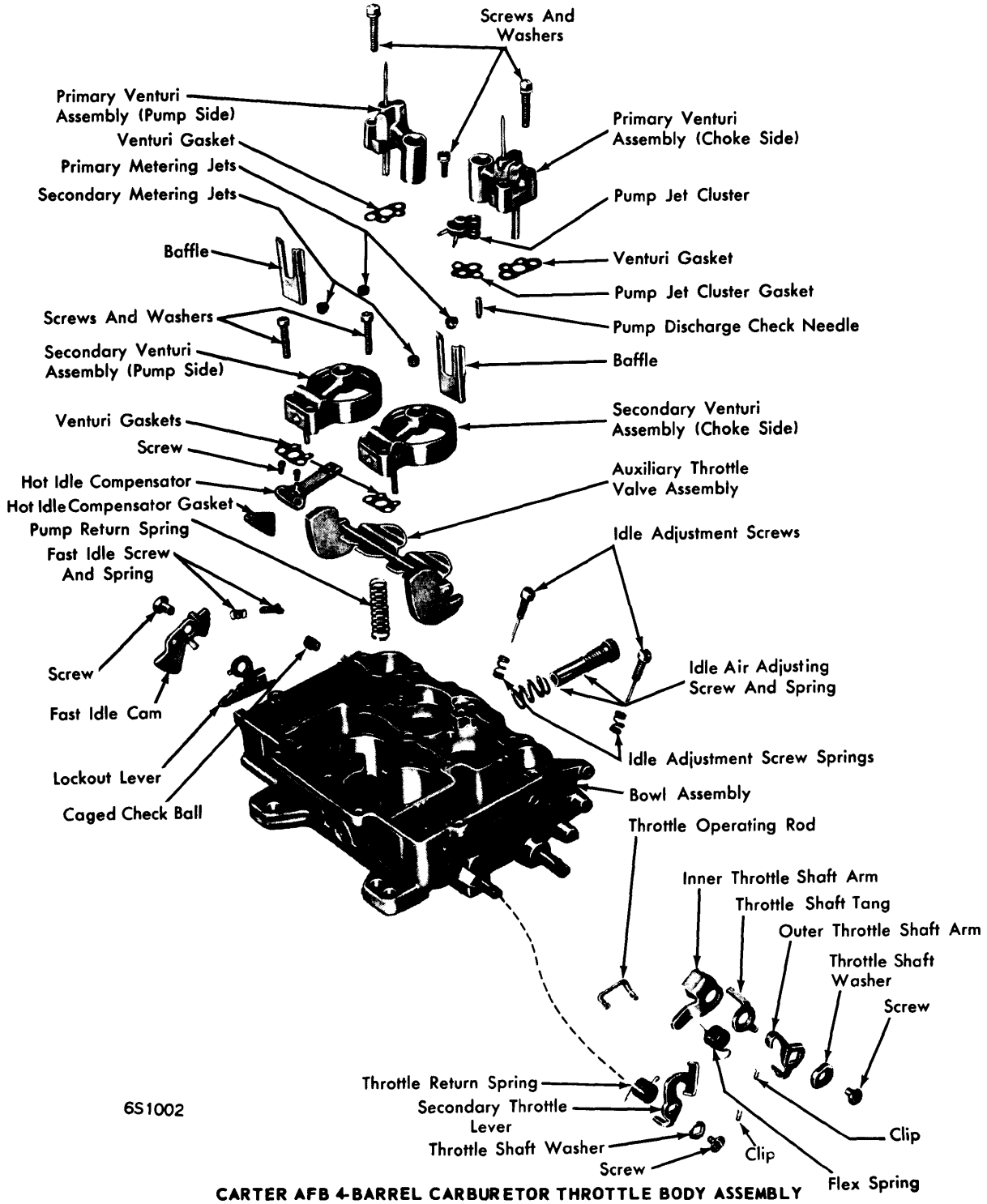


CARTER AFB 4-BARREL CARBURETOR AIR HORN & FLOAT ASSEMBLY (TYPICAL)

1966-67 CARTER AFB 4-BARREL (Continued)

damage bi-metal strip). Mark primary and secondary venturi assemblies for correct reinstallation, then remove venturi assemblies and gaskets. Remove float bowl baffles and auxiliary throttle valve assembly (if used). Remove primary and secondary metering jets *(CAUTION - Keep jets separate for correct reinstallation).* Remove pump intake ball check assembly plug from pump side of bowl. Remove idle mixture screws and spring *(CAUTION - Do not remove these screws on Chrysler Corp. "CAP" carburetors - screws have limited travel and will be broken if removed).* Remove idle air adjustment screw and spring. It is not necessary to remove throttle valves or disturb throttle linkage for normal cleaning and inspection. If necessary to replace parts, disassemble as directed below. *NOTE* - If throttle shafts worn, it is recommended that carburetor be replaced.

Throttle Valves & Linkage - Take out fast idle cam attaching screw, remove fast idle cam, trip lever, and lockout lever. Remove secondary throttle operating rod. Take out screw on end of secondary throttle shaft, remove washer and operating lever and spring from shaft. Unhook



CARTER AFB 4-BARREL CARBURETOR THROTTLE BODY ASSEMBLY (WITH AUXILIARY THROTTLE VALVES)

1966-67 CARTER AFB 4-BARREL (Continued)

throttle flex spring from outer primary throttle shaft arm. Take out screw on end of primary throttle shaft, remove outer throttle shaft arm and dog, inner throttle shaft arm, and flex spring from primary throttle shaft. To remove throttle valves, file staked ends of screws flush with throttle shaft, remove screws, lift throttle valves out, slide throttle shafts out.

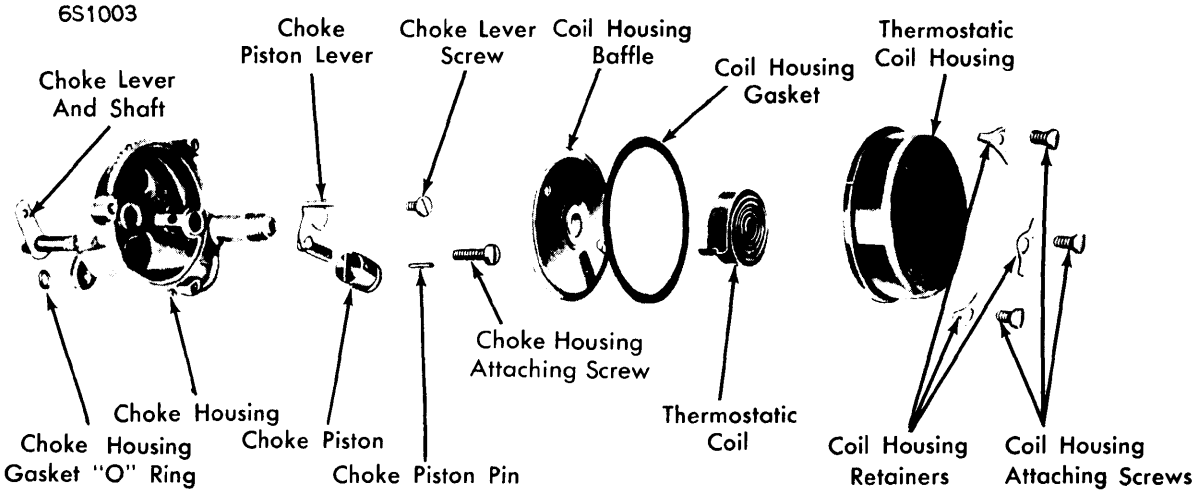
Cleaning & Inspection

Clean carburetor castings and metal parts thoroughly in carburetor cleaning solution. Do not immerse vacuum diaphragm assemblies, choke cover and thermostatic coil assembly, or pump plunger in cleaning solution. Clean pump plunger in clean gasoline. Blow out all passages with compressed air and remove all carbon deposits *(NOTE* - If carbon deposits noted in choke piston cylinder and slots, remove welch plug from end of cylinder by piercing center of plug with a pointed tool and prying plug out, install new plug after cleaning cylinder and plug seat). Inspect all parts for wear or damage and replace as necessary.

Reassembly

Use all new gaskets. Install parts in reverse order of disassembly procedure, and note the following:

Valve Installation - Use new screws when installing valves in their respective bores with "C" in circle toward manifold side of carburetor. Install new screws but do not tighten. Make sure idle speed adjusting screw is backed out, then hold valves in place with fingers placed on high side of valve. Tap valves lightly with a screwdriver to seat them in bores and while holding in this position, tighten screws securely. Stake screws in place by squeezing with pliers.



CARTER AFB 4-BARREL CARBURETOR CHOKE ASSEMBLY