

Carter Carburetors

CARTER YF SINGLE BARREL

CHEVROLET & GMC

Application	Carter Part No.	
	Man. Trans.	Auto. Trans.
1965		
153" 4 Cyl.	3379S.....	3402S
194" 6 Cyl.	4043S.....	4044S
230" 6 Cyl.		
"G" Models.....	4480S.....	4480S
All Others	3975S.....	3976S
1966		
"G" Models W/A.I.R.		
194" & 230" 6 Cyl.....	4072S.....	4073S
"G" Models W/O A.I.R.		
194" & 230" 6 Cyl.....	4043S.....	4044S
All Others W/A.I.R.		
230" & 250" 6 Cyl.....	4085S.....	4086S
All Others W/O A.I.R.		
230" & 250" 6 Cyl.....	4480S.....	4480S
1967		
"G" Models W/A.I.R.		
230" & 250" 6 Cyl.....	4369S.....	4370S
"G" Models W/O A.I.R.		
230" & 250" 6 Cyl.....	4375S.....	4376S
All Others W/A.I.R.		
230" & 250" 6 Cyl.....	4371S.....	4372S
All Others W/O A.I.R.		
230" & 250" 6 Cyl.....	4480S.....	4480S

FORD

Application	Carter Part No.
1968	
170" 6 Cyl.	4496
240" 6 Cyl.	4499
1969	
170" 6 Cyl.	4707
240" 6 Cyl.	4670, 4691, 4751
300" 6 Cyl.	4598
1970	
170" 6 Cyl.	4778
240" 6 Cyl.	4598, 4691
300" 6 Cyl.	4790, 4792, 4903
1971	
170" 6 Cyl.	6060
240" 6 Cyl.	6056, 6057, 6061, 6176, 6177
300" 6 Cyl.	6058, 6059, 6063, 6244
1972	
170" 6 Cyl.	6247
240" 6 Cyl.	6239, 6240, 6241, 6245 6246, 6258, 6307 6308, 6349, 6350
300" 6 Cyl.	6244
1973	
200" 6 Cyl.	6580
240" 6 Cyl.	6384, 6387, 6447, 6451 6497, 6553, 6554, 6555 6556, 6575
300" 6 Cyl.	6376, 6386
1974	
200" 6 Cyl.	6640
240" 6 Cyl.	6641, 6642, 6643 6644, 6645
300" 6 Cyl.	6646, 6651, 7002, 7003 7004, 7005, 7006

JEEP

Application	Carter Part No.	
	Man. Trans.	Auto. Trans.
1965		
L-4 4 Cyl.....	2392S.....	①
F-4 4 Cyl.	954S.....	3200S
F-4 4 Cyl. W/O.D.	938S.....	①
1966		
L-4 4 Cyl.....	2392S.....	①
F-4 4 Cyl.	4002S.....	3200S
1967		
F-4 4 Cyl.	4002S.....	3200S
1968 & 1969		
F-4 4 Cyl.	4366S.....	4366S
1970		
F-4 4 Cyl.	4941S.....	4941S
1971		
F-4 4 Cyl.	6115S.....	6115S
258" 6 Cyl.....	6172S.....	6158S
1972		
232" 6 Cyl.....	6288S.....	6288S
258" 6 Cyl.....	6287S.....	6288S
1973		
232" 6 Cyl.....	6401S.....	6401S
258" 6 Cyl.....	6299S.....	6300S
1974		
232" 6 Cyl.....	7029S.....	7029S
258" 6 Cyl.		
Calif.....	6511S, 7029S.....	①
Federal.....	6431S.....	7001S

① - Not applicable.

NOTE - Some later carburetor floats are hinged on left side of air horn instead of right side, have no fuel bowl plate (baffle), and have a nitrophyl float instead of a brass float. Service procedures remain the same.

CARBURETOR IDENTIFICATION

Carter carburetor number or Ford part number is stamped on tag attached to carburetor body with one screw. Ford identification tags may also be stamped Autolite or Motorcraft.

DESCRIPTION

Single barrel downdraft type with diaphragm type accelerating pump and, on most models, an integral automatic choke.

ADJUSTMENT

HOT (SLOW) IDLE RPM

See appropriate article in TUNE-UP Section.

COLD (FAST) IDLE RPM

See appropriate article in TUNE-UP Section.

ACCELERATOR AND DOWNSHIFT LINKAGE ADJUSTMENT

See appropriate article in TUNE-UP Section.

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DASHPOT ADJUSTMENT

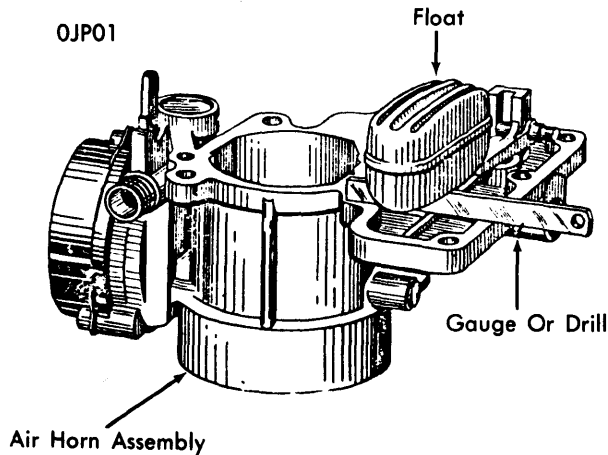
See appropriate article in TUNE-UP Section.

THROTTLE SOLENOID POSITIONER ADJUSTMENT

See appropriate article in TUNE-UP Section.

FLOAT LEVEL

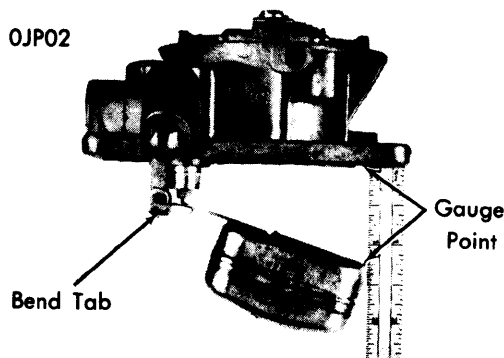
Remove air horn and gasket from carburetor. Invert air horn assembly and measure distance between top of float at free end and air horn casting. **CAUTION** — Do not put any pressure on needle forcing it into seat when making adjustment. Bend float arm as necessary to adjust float level. **NOTE** — Do not bend tab at end of float arm to make adjustment.



FLOAT LEVEL ADJUSTMENT

FLOAT DROP

NOTE — This adjustment applies only to certain models. See specifications to see if adjustment is required. Remove air horn and gasket from carburetor. Hold air horn upright and let float hang free. Measure maximum clearance from top of float to air horn casting. To adjust, bend tab at end of float arm to obtain specified setting.



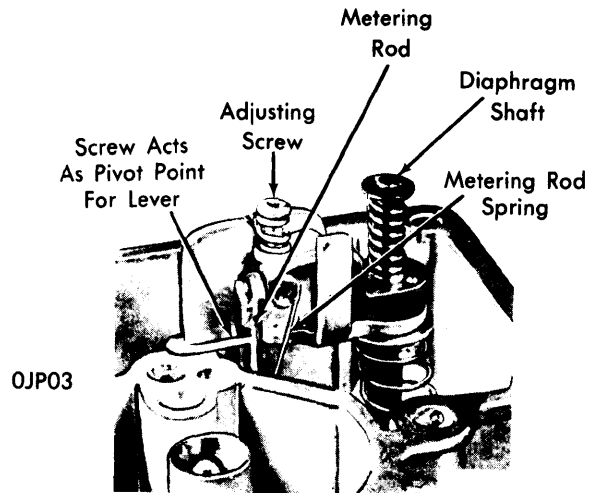
FLOAT DROP ADJUSTMENT

ACCELERATING PUMP

No adjustment required.

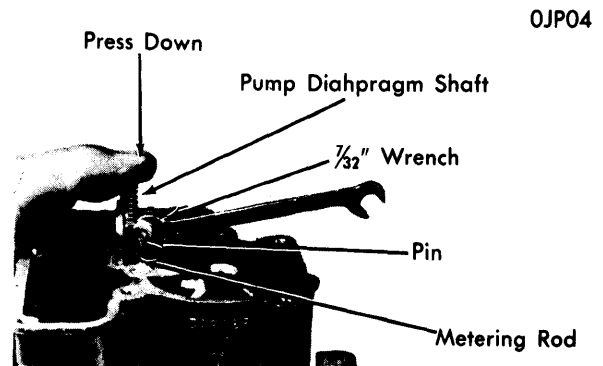
METERING ROD

With Adjusting Screw — Remove air horn and gasket and back out idle speed adjusting screw until throttle valve is seated in throttle bore. Press down on diaphragm shaft until metering rod arm contacts lifter link at diaphragm stem. Hold diaphragm assembly down and turn metering rod adjustment screw until metering rod just bottoms in body casting. Turn metering rod adjustment screw in one additional turn.



METERING ROD ADJUSTMENT (WITH ADJUSTING SCREW)

Without Adjusting Screw — Remove air horn assembly and back out idle speed adjusting screw and dashpot (if so equipped) until throttle valve is completely closed. Press down on pump diaphragm shaft until it bottoms. With diaphragm bottomed in vacuum chamber, metering rod eyelet should slide freely onto metering rod arm pin.

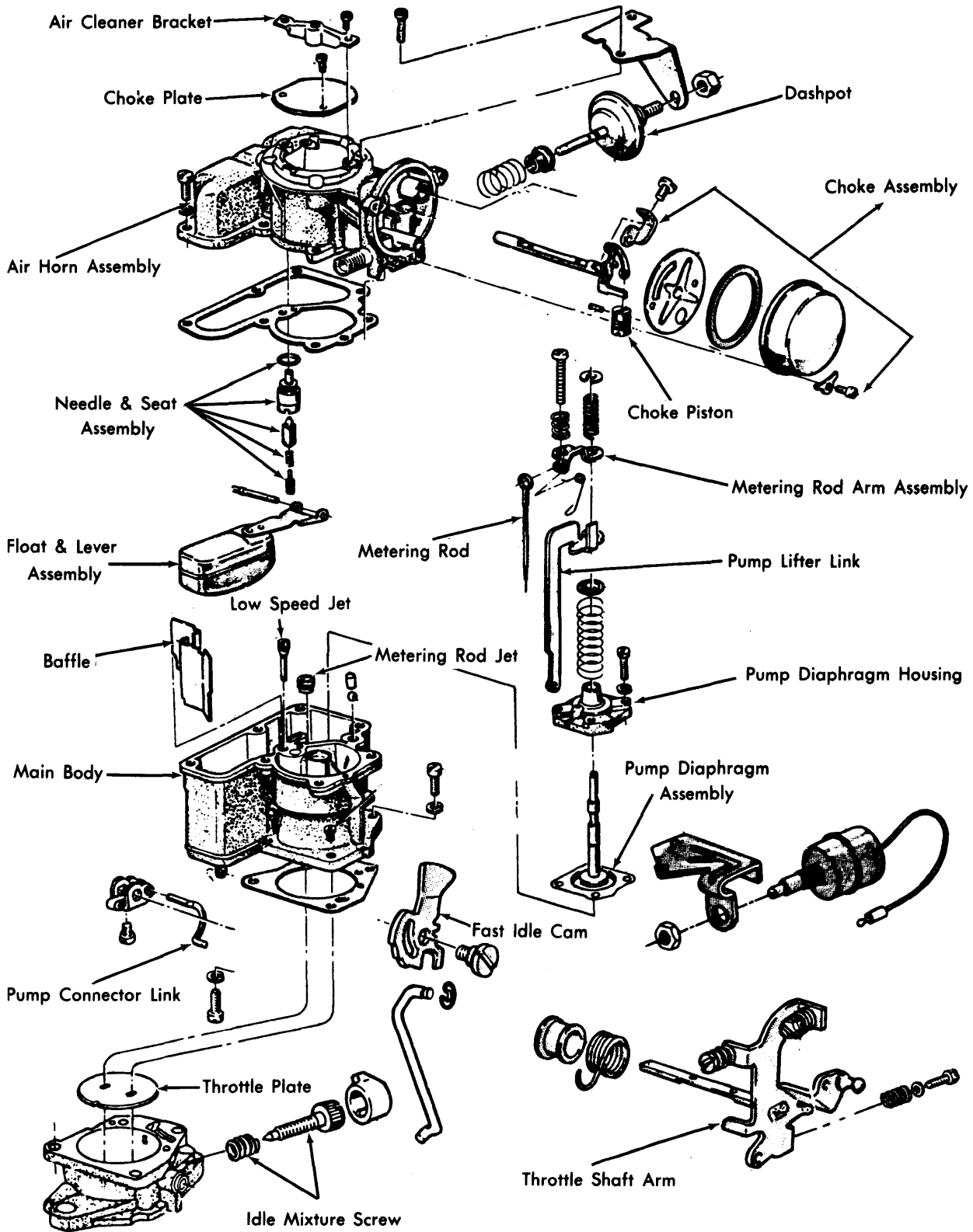


METERING ROD ADJUSTMENT (WITHOUT ADJUSTING SCREW)

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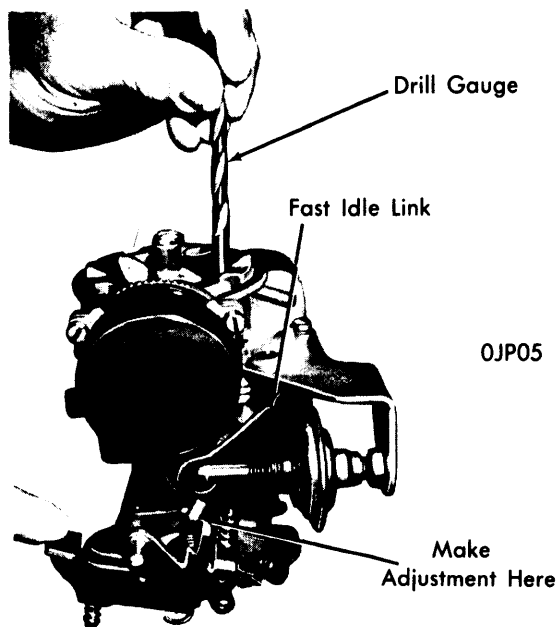


CARTER YF SINGLE BARREL CARBURETOR ASSEMBLY

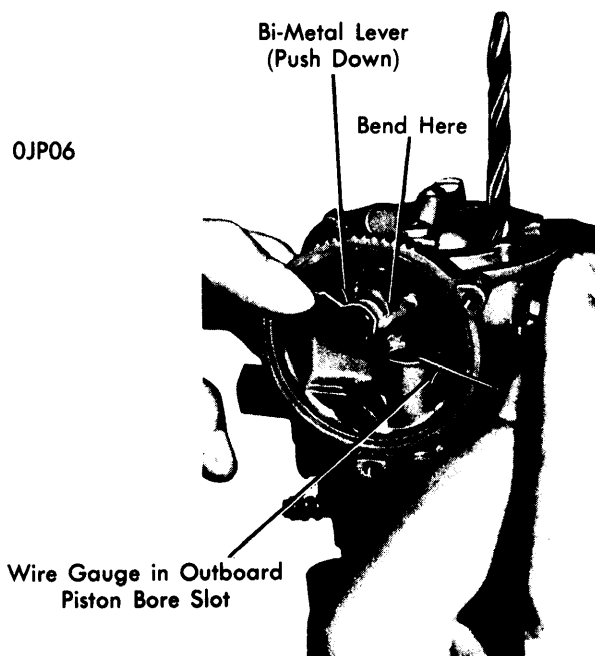
CARTER MODEL YF SINGLE BARREL (Cont.)

UNLOADER

Make this adjustment after Fast Idle adjusted. Remove automatic choke cover and coil assembly, gasket, and baffle. Hold throttle valve in wide open position and close choke valve as far as possible without forcing. Use gauge or drill rod of correct size (see Specifications) to check clearance between lower edge of choke valve and air horn wall. If clearance not correct, adjust by bending choke trip lever on fast idle cam within choke housing. Reassembly automatic choke and set to specifications.



UNLOADER ADJUSTMENT



CHOKE VALVE PULLDOWN CLEARANCE

CHOKE VALVE PULL-DOWN CLEARANCE

Remove air cleaner and choke thermostatic spring housing from carburetor. Bend a .026" diameter wire gauge at a 90° angle approximately 1/8" from one end. Insert bent end of gauge between choke piston slot and right hand slot in choke housing. Rotate choke piston lever counterclockwise until gauge is snug in piston slot. Exert light pressure on choke piston lever to hold gauge in place, then using a drill with a diameter equal to specified clearance (see Specifications) check clearance between lower edge of choke plate and carburetor bore. To adjust, bend choke piston lever as required. **CAUTION** — Remove choke piston lever for bending to prevent distorting piston link.

OVERHAUL

DISASSEMBLY

1) Remove attaching screws and retainers, thermostatic spring housing assembly, spring housing gasket, spring housing baffle plate and fast idle link. Remove air horn assembly attaching screws, dashpot or solenoid bracket assembly, air horn assembly, and air horn gasket.

2) Turn air horn assembly upside down and remove float pin and float and lever assembly. Turn air horn right side up and catch needle pin, spring and needle. Remove needle seat and gasket.

3) Remove air cleaner bracket, then remove choke plate attaching screws. File staked ends, if necessary, and use new screws at reassembly. Remove choke plate from air horn, remove choke link lever and attaching screw. Rotate choke shaft and piston assembly counterclockwise until choke piston is out of choke piston cylinder, remove assembly from air horn. Remove piston pin and piston from choke piston lever and shaft assembly.

4) Turn main body upside down and catch accelerating pump check needle. Loosen throttle shaft arm screw and remove arm and pump connector link. Remove fast idle cam and shoulder screw. Remove accelerating pump diaphragm housing screws, lift out pump diaphragm assembly, pump lifter link, metering rod and fuel bowl baffle plate as a unit.

5) Disengage metering rod arm spring from metering rod, remove metering rod from rod arm assembly. Note the location of any washers that were used for shimming either spring. Compress upper pump spring and remove spring retainer, remove upper spring, metering rod arm assembly, and the pump lifter link from the pump diaphragm shaft. Compress pump diaphragm spring, remove pump diaphragm spring retainer, spring, and pump diaphragm assembly from pump diaphragm housing assembly.

6) Using the proper size jet tool or screwdriver, remove metering rod jet and low speed jet. Remove retaining screws and separate throttle body flange assembly from the main body casting. Remove body flange gasket. Remove throttle plate

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CARTER MODEL YF SINGLE BARREL (Cont.)

retaining screws. File staked ends, if necessary, and use new screws at reassembly. Slide throttle shaft and lever assembly out of throttle body flange assembly. Note location of the ends of torsion spring on throttle shaft for proper reassembly. When removing idle mixture limiter cap, be sure to note the position of the tab. After removing the limiter cap, count the number of turns to lightly seat the needle, this information is necessary to correctly position needle at reassembly.

CLEANING & INSPECTION

Wash all parts in carburetor cleaning solution. **CAUTION** — Do not immerse accelerating pump diaphragm, power valve, secondary operating diaphragm, and dashpot assembly in solution. Inspect all parts for wear or damage and replace if necessary. Blow out all passages with air.

REASSEMBLY

To reassembly, reverse disassembly procedure while noting the following:

1) Position throttle plate on the throttle shaft with the notch in the plate aligned with the slotted idle port in the throttle body flange. Install throttle plate attaching screws snug, but not tight, move shaft back and forth and rotate it to be sure the throttle plate does not bind in flange bore. It is necessary that the throttle plate should close tight in the bore, therefore, the idle speed screw should be backed out sufficiently to insure it does not contact the throttle stop. Reposition the throttle plate if necessary, and tighten screws and stake (or peen) the screws in place.

2) Be sure vacuum passage in the diaphragm housing is aligned with the vacuum passage in the main body.

CARBURETOR ADJUSTMENT SPECIFICATIONS								
Carburetor Number	Idle Speed ^① (Engine RPM)		Float Level Setting	Float Drop	Unloader Setting	Dashpot Clearance	Choke Pull-Down	Auto. Choke Setting
	Hot	Fast						
938	$\frac{5}{16}$ "	1 $\frac{1}{4}$"	.....	.....	.....	.....
954	$\frac{5}{16}$ "	1 $\frac{1}{4}$"	.....	.....	.....	.....
2392	$\frac{9}{32}$ "	1 $\frac{1}{4}$"	.....	.....	.....	.....
3200	$\frac{5}{16}$ "	1 $\frac{1}{4}$"	.....	.....	.....	.....
3379	$\frac{7}{16}$ "	1 $\frac{1}{4}$"	.....	.....	.....	.....
3402	$\frac{7}{16}$ "	1 $\frac{1}{4}$"	.....	.....	.....	.....
3975	$\frac{7}{16}$ "	1 $\frac{1}{4}$"	.....	.....	.....	.....
3976	$\frac{7}{16}$ "	1 $\frac{1}{4}$"	.....	.....	.....	.....
4002	$\frac{17}{64}$ "	1 $\frac{1}{4}$"	.....	.....	.....	.....
4043	$\frac{7}{16}$ "	1 $\frac{1}{4}$"	.....	.....	.....	.....
4044	$\frac{7}{16}$ "	1 $\frac{1}{4}$"	.....	.....	.....	.....
4072	$\frac{1}{2}$ "	1 $\frac{1}{4}$"	.....	.....	.....	.....
4073	$\frac{1}{2}$ "	1 $\frac{1}{4}$"	.....	.....	.....	.....
4085	$\frac{1}{2}$ "	1 $\frac{1}{4}$"	.....	.....	.....	.....
4086	$\frac{1}{2}$ "	1 $\frac{1}{4}$"	.....	.....	.....	.....
4366	$\frac{1}{4}$ "	1 $\frac{1}{4}$"	.....	.....	.....	.....
4369	$\frac{7}{32}$ "	1 $\frac{1}{4}$"	.....	.....	.....	.....
4370	$\frac{7}{32}$ "	1 $\frac{1}{4}$"	.....	.....	.....	.....
4371	$\frac{7}{32}$ "	1 $\frac{1}{4}$"	.....	.....	.....	.....
4372	$\frac{7}{32}$ "	1 $\frac{1}{4}$"	.....	.....	.....	.....
4375	$\frac{7}{16}$ "	1 $\frac{1}{4}$"	.....	.....	.....	.....
4376	$\frac{7}{16}$ "	1 $\frac{1}{4}$"	.....	.....	.....	.....
4480	$\frac{7}{32}$ "	1 $\frac{1}{4}$"	.....	.....	.....	.....
4496	$\frac{7}{32}$ "	1 $\frac{1}{4}$"	.....	.....	.....	.....
4499	$\frac{7}{32}$ "	1 $\frac{1}{4}$"	.....	.....	.....	.....
4598	$\frac{7}{32}$ "	1 $\frac{1}{4}$"	.....	$\frac{3}{32}$"	.....	.....
4670	$\frac{7}{32}$ "	1 $\frac{1}{4}$"	.....	.....	.....	.....
4691	$\frac{7}{32}$ "	1 $\frac{1}{4}$"	.....	$\frac{3}{32}$"	.....	.....
4707	$\frac{7}{32}$ "	1 $\frac{1}{4}$"	.....	$\frac{3}{32}$"	.....	.....
4751	$\frac{7}{32}$ "	1 $\frac{1}{4}$"	.....	.....	.....	.....
4778	$\frac{7}{32}$ "	1 $\frac{1}{4}$ "	$\frac{5}{16}$ "	$\frac{3}{32}$ "	.038"	Index
4790	$\frac{7}{32}$ "	1 $\frac{1}{4}$ "	$\frac{5}{16}$"	.....	.030"	1 Lean
4792	$\frac{7}{32}$ "	1 $\frac{1}{4}$ "	$\frac{5}{16}$"	.....	.040"	Index
4860	$\frac{7}{32}$ "	1 $\frac{1}{4}$ "	$\frac{5}{16}$ "	$\frac{3}{32}$ "	.040"	1 Lean
4903	$\frac{7}{32}$ "	1 $\frac{1}{4}$ "	$\frac{5}{16}$ "	$\frac{7}{64}$ "	.030"	1 Lean

① — See appropriate article in TUNE-UP Section.

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CARTER MODEL YF SINGLE BARREL (Cont.)

CARBURETOR ADJUSTMENT SPECIFICATIONS (Cont.)								
Carburetor Number	Idle Speed [Ⓢ] (Engine RPM)		Float Level Setting	Float Drop	Unloader Setting	Dashpot Clearance	Choke Pull-Down	Auto. Choke Setting
	Hot	Fast						
4941	1/4"	1 1/4"	.....	9/64"	.....	.....
6056	3/8"	1 1/4"	5/16"	.....	1 1/64"	Index
6057	3/8"	1 1/4"	5/16"	.....	1 1/64"	Index
6058	7/32"	1 1/4"	5/16"	.....	1 1/64"	1 Lean
6059	7/32"	1 1/4"	5/16"	.....	1 1/64"	Index
6060	7/32"	1 1/4"	1 1/64"	3/32"	7/64"	Index
6061	3/8"	1 1/4"	5/16"	3/32"	1 1/64"	Index
6063	7/32"	1 1/4"	5/16"	7/64"	1 1/64"	1 Lean
6115	1/4"	1 1/4"	.....	9/64"	.....	.....
6158	7/16"	1 1/4"	5/16"	1/8"	.....	Index
6172	7/16"	1 1/4"	5/16"	1/8"	.....	1 Rich
6179	3/8"	1 1/4"	5/16"	.....	1 1/64"	Index
6177	3/8"	1 1/4"	5/16"	.....	1 1/64"	Index
6239	3/8"	1 1/4"	5/16"	.....	1 1/64"	1 Lean
6240	3/8"	1 1/4"	5/16"	.....	1 1/64"	Index
6241	3/8"	1 1/4"	5/16"	7/64"	1 1/64"	1 Lean
6244	7/32"	1 1/4"	5/16"	7/64"	1 1/64"	1 Lean
6245	3/8"	1 1/4"	5/16"	.....	1 1/64"	1 Lean
6246	3/8"	1 1/4"	5/16"	.....	1 1/64"	Index
6247	3/8"	1 1/4"	5/16"	3/32"	7/64"	Index
6258	3/8"	1 1/4"	5/16"	.....	1 1/64"	1 Lean
6287	7/16"	1 1/4"	5/16"	7/64"	.....	Index
6288	7/16"	1 1/4"	5/16"	7/64"	.....	Index
6299	29/64"	1 1/4"	9/32"	3/32"	7/32"	1 Rich
6300	29/64"	1 1/4"	9/32"	3/32"	7/32"	1 Rich
6307	3/8"	1 1/4"	5/16"	.....	1 1/64"	Index
6308	3/8"	1 1/4"	5/16"	.....	1 1/64"	Index
6349	3/8"	1 1/4"	5/16"	.....	1 1/64"	1 Lean
6350	3/8"	1 1/4"	5/16"	.....	1 1/64"	1 Lean
6376	7/32"	1 1/4"	.....	7/64"	.....	.....
6384	3/8"	1 1/4"	5/16"	.....	1 1/64"	Index
6386	7/32"	1 1/4"	5/16"	7/64"	7/64"	1 Lean
6387	3/8"	1 1/4"	5/16"	.....	1 1/64"	1 Lean
6401	29/64"	1 1/4"	9/32"	3/32"	7/32"	1 Rich
6431476"	.....	.....	.095"	.215"	1 Rich
6447	3/8"	1 1/4"	5/16"	.....	1 1/64"	Index
6451	3/8"	1 1/4"	5/16"	.....	1 1/64"	Index
6497	3/8"	1 1/4"	5/16"	.....	1 1/64"	1 Lean
6498	3/8"	1 1/4"	5/16"	.....	1 1/64"	1 Lean
6511476"	.....	.....	.095"	.215"	1 Rich
6553	3/8"	1 1/4"	5/16"	.....	1 1/64"	1 Lean
6554	3/8"	1 1/4"	5/16"	.....	1 1/32"	Index
6555	3/8"	1 1/4"	5/16"	.....	1 1/64"	1 Lean
6556	3/8"	1 1/4"	5/16"	.....	1 1/64"	Index
6575	3/8"	1 1/4"	1 1/32"	.....	1 1/64"	Index
6580	3/8"	1 1/4"	5/16"	3/32"	1/8"	Index
6640	3/8"	1 1/4"	5/16"	3/32"	1/8"	Index
6641	3/8"	1 1/4"	5/16"	.....	1 1/64"	1 Lean
6642	3/8"	1 1/4"	5/16"	.....	1 1/64"	Index
6643	3/8"	1 1/4"	5/64"	.....	1 1/64"	1 Lean
6644	3/8"	1 1/4"	5/64"	.....	1 1/64"	Index
6645	3/8"	1 1/4"	5/64"	.....	1 1/64"	Index
6646	3/8"	1 1/4"	5/64"	3/32"	1 1/64"	1 Rich
6651	3/8"	1 1/4"	3/32"

Ⓢ — See appropriate article in TUNE-UP Section

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CARTER MODEL YF SINGLE BARREL (Cont.)

CARBURETOR ADJUSTMENT SPECIFICATIONS (Cont.)								
Carburetor Number	Idle Speed (Engine RPM) ①		Float Level Setting	Float Drop	Unloader Setting	Dashpot Clearance	Choke Pull-Down	Auto. Choke Setting
	Hot	Fast						
7001476"	....	....	.095"	.215"	1 Rich
7002	3/8"	1 1/4"	5/16"	3/32"	7/64"	1 Rich
7003	3/8"	1 1/4"	5/16"	3/32"	7/64"	Index
7004	3/8"	1 1/4"	5/16"	3/32"	7/64"	Index
7005	3/8"	1 1/4"	....	....	....	....
7006	3/8"	1 1/4"	5/16"	....	7/64"	1 Rich
7029476"	....	....	.095"	.215"	1 Rich

① — See appropriate article in TUNE-UP Section.