

# FUEL SYSTEM

## SERVICE INSTRUCTION WORKSHEET

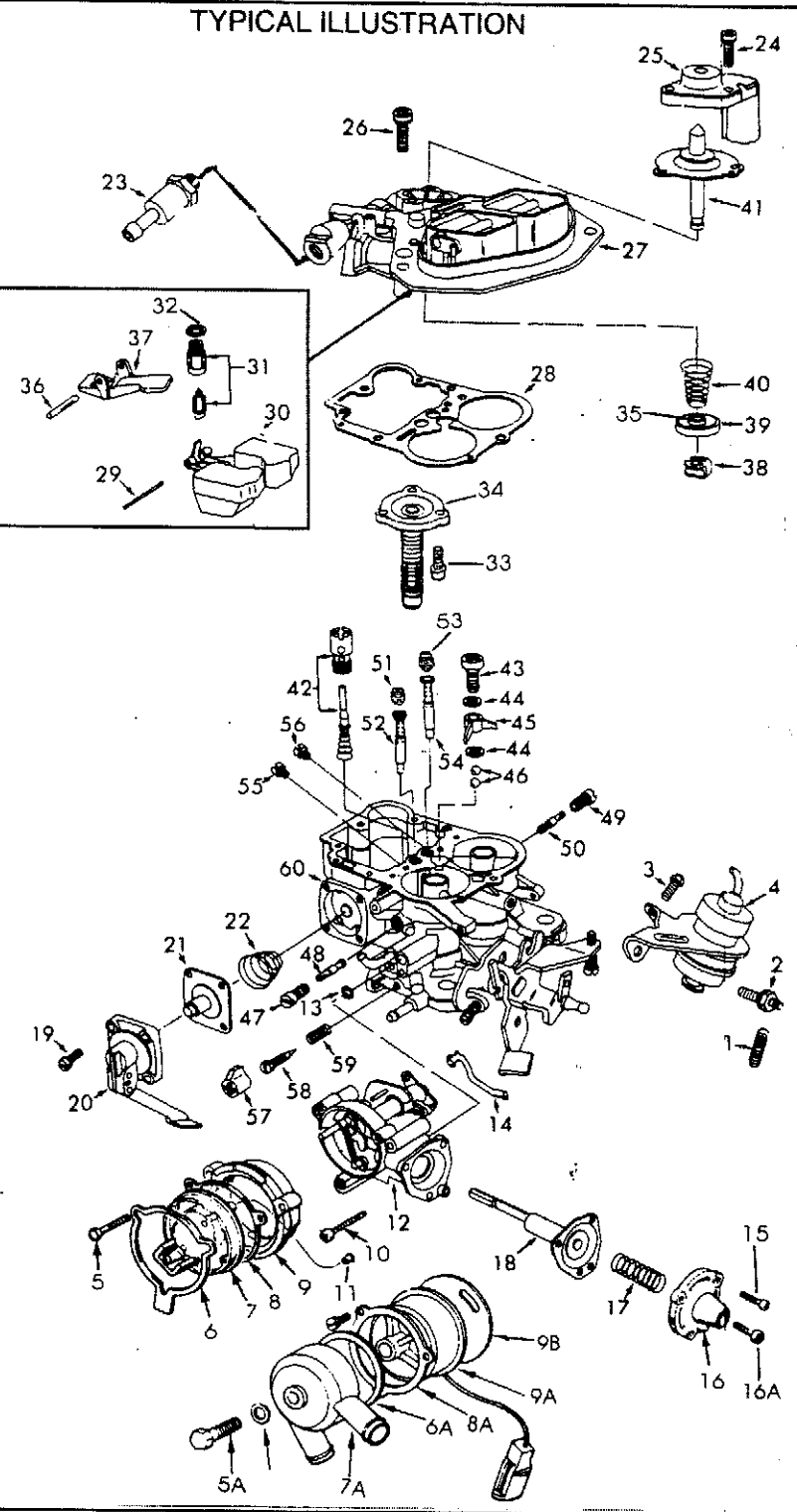
# TO REPAIR

# GF3707-5

## HOLLEY CARBURETOR

### 2 BARREL---Model 5200C, 5210C

### TYPICAL ILLUSTRATION



1. Carefully read the text in the following pages to become familiar with the contents of this worksheet before performing carburetor overhaul.
2. The exploded view is typical of the model carburetor this kit will service. The view may differ slightly from the actual carburetor being overhauled.
3. Use the exploded view as a guide. The numerical sequence of the parts list may generally be followed to disassemble the carburetor far enough to permit cleaning and inspection.
4. Parts list shown DOES NOT reflect the contents of the kit.
5. Kit may contain extra parts intended for other carburetors within this group. Substitute identical replacement parts for original worn parts found in carburetor.
6. **Cover opening on intake manifold after carburetor is removed.** Place carburetor parts in cleaning solvent.

### CLEANING

Cleaning must be done with carburetor disassembled. Use spray cleaner and a stiff bristle brush to remove dirt and carbon deposits. Do not use abrasives and wires to clean parts and passageways. Wash off in suitable solvent, and clear all passageways with compressed air. **Caution:** When cleaning with solvent do not soak or spray parts containing rubber, leather, plastic and electrical components.

### PARTS LIST

- |  |                                      |
|--|--------------------------------------|
| 1. Spring                              | 27. Air horn assembly                |
| 2. Stud bolt, spring                   | 28. Gasket, air horn assembly*       |
| 3. Bolt, solenoid bracket              | 29. Pin, float hinge                 |
| 4. Solenoid assembly                   | 30. Float assembly                   |
| 5. Screw, retaining ring (3)           | 31. Needle & seat, fuel inlet*       |
| 5A. Retaining screw, water housing     | 32. Washer, fuel inlet*              |
| 5B. Washer, water housing*             | 33. Screw, economizer valve          |
| 6. Retaining ring, therm. housing      | 34. Economizer assembly*             |
| 6A. Gasket, choke water housing*       | 35. Seal, vent valve                 |
| 7. Therm. bi-metal assembly            | 36. Pin, vent-valve hinge            |
| 7A. Choke water housing                | 37. Vent valve, -internal            |
| 8. Ground ring                         | 38. Retainer, vent valve             |
| 8A. Retaining ring, therm. housing     | 39. Vent valve -external             |
| 9. Therm. housing                      | 40. Spring, vent valve               |
| 9A. Therm. housing                     | 41. Diaphragm assembly, bowl vent*   |
| 9B. Gasket, therm. housing*            | 42. Power valve assembly*            |
| 10. Screw, choke housing (3)           | 43. Screw, pump discharge            |
| 11. Bushing, choke lever               | 44. Washer, pump discharge (2)*      |
| 12. Choke housing assembly             | 45. Nozzle, pump discharge           |
| 13. "O" ring choke housing*            | 46. Check ball, pump discharge (2)*  |
| 14. Rod, fast idle                     | 47. Retainer, primary, idle jet      |
| 15. Screw, choke diaphragm cover (3)   | 48. Idle jet, primary                |
| 16. Cover, choke diaphragm assembly    | 49. Retainer, secondary, idle jet    |
| 16A. Screw, choke diaphragm, adjusting | 50. Idle jet, secondary              |
| 17. Spring, diaphragm return           | 51. Jet, primary, high speed bleed   |
| 18. Diaphragm assembly                 | 52. Tube, primary, main well         |
| 19. Screw, pump cover (4)              | 53. Jet, secondary, high speed bleed |
| 20. Cover, pump assembly               | 54. Tube, secondary, main well       |
| 21. Diaphragm, pump assembly*          | 55. Jet, primary, main metering      |
| 22. Spring, pump return                | 56. Jet, secondary, main metering    |
| 23. Filter, fuel inlet                 | 57. Cap, idle limiter                |
| 24. Screw, bowl vent solenoid (3)      | 58. Needle, idle adjusting           |
| 25. Solenoid assembly                  | 59. Spring, idle adjusting needle    |
| 26. Screw, air horn assembly (5)       | 60. Main body assembly               |

☞ PARTS LIST SHOWN DOES NOT REFLECT THE CONTENTS OF THE KIT.

\* Parts are included in most kits. Extra parts are included for other kits.

## DISASSEMBLY

REST THE CARBURETOR ON A REPAIR BENCH OR A SPECIAL STAND TO AVOID DAMAGE TO THE THROTTLE VALVES DURING THE OVERHAUL PROCEDURE. COVER OPENING ON INTAKE MANIFOLD TO PREVENT DIRT FROM ENTERING THE ENGINE.

**NOTE:** CHECK IF SPECIFICATION DATA IS AVAILABLE FOR YOUR CARBURETOR. IF NOT, MEASURE THE FLOAT LEVEL (FIG. A) AND RECORD IT BEFORE DISASSEMBLING FLOAT ASSEMBLY.

IDENTIFY AND RECORD THE LOCATION OF THE PRIMARY AND SECONDARY MAIN WELL AIR BLEED JETS (51, 53), MAIN WELL TUBES (52, 54), MAIN JETS (55, 56) AND IDLE JETS (47 thru 50) AS THEY ARE REMOVED, IN ORDER TO INSTALL THEM CORRECTLY UPON REASSEMBLY.

TURN IDLE ADJUSTING NEEDLE (58) IN UNTIL LIGHTLY SEATED. NOTE THE NUMBER OF TURNS AND THE POSITION OF THE SCREW. USE IT TO OBTAIN INITIAL SETTING UPON REASSEMBLY.

TAKE NOTICE IF CARBURETOR HAS A STAMPED OR A CAST BODY ECONOMIZER (34). SHORT SCREWS SHOULD BE USED WITH THE STAMPED BODY ECONOMIZER; LONG SCREWS WITH THE THE CAST BODY ECONOMIZER.

UNLESS THE THROTTLE OR CHOKE VALVES ARE DAMAGED, IT IS NOT NECESSARY TO DISASSEMBLE THEM. TO REMOVE THE VALVES, FILE THE STAKED ENDS OF THE SCREWS, THEN UNTIGHTEN THEM.

**NOTE:** BEFORE REMOVAL, BE SURE TO MARK POSITION OF THERM. HOUSING (9A) WITH RELATIONS TO INDEX LINE ON CHOKE WATER HOUSING (7A).

## REASSEMBLY

REASSEMBLE IN REVERSE ORDER OF DISASSEMBLY. THE KIT MAY CONTAIN EXTRA PARTS INTENDED FOR OTHER CARBURETORS WITHIN THIS GROUP. SUBSTITUTE IDENTICAL REPLACEMENT PARTS FOR ORIGINAL WORN PARTS FOUND IN CARBURETOR.

IF THROTTLE OR CHOKE VALVES WERE REMOVED, BE SURE TO STAKE SCREWS TO PREVENT BACKING OUT AND FALLING INTO ENGINE. OPERATE THE THROTTLE LEVER AND CHOKE MECHANISM TO CHECK FOR BINDING OR OTHER MALFUNCTION. THE VALVES HAVE TO MOVE FREELY.

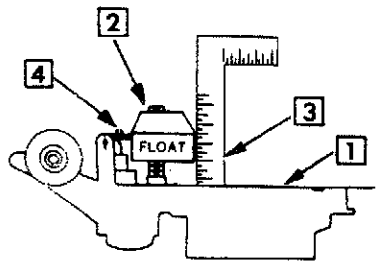
**NOTE:** SOME EARLY MODELS OF THIS TYPE CARBURETOR USED SCREWS AND NUTS WITH METRIC THREADS. DO NOT SUBSTITUTE U.S. THREADED SCREWS AND NUTS.

BE SURE THAT ALL NEW GASKETS ARE INSTALLED WHERE REQUIRED. TO PREVENT DAMAGE TO DIAPHRAGMS, CAREFULLY ALIGN SCREW HOLES BEFORE INSTALLING SCREWS.

## ADJUSTMENT DATA

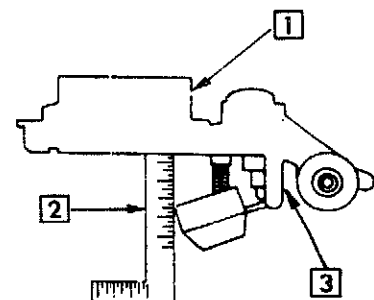
**FIG. A  
FLOAT LEVEL  
ADJUSTMENT**

1. INVERT AIR HORN WITHOUT GASKET.
2. ALLOW WEIGHT OF FLOAT TO PRESS DOWN AGAINST FLOAT NEEDLE.
3. MEASURE CLEARANCE AS SPECIFIED BETWEEN TOP OF FLOAT AND AIR HORN CASTING SURFACE.
4. TO ADJUST, BEND FLOAT ARM TANG THAT TOUCHES FLOAT NEEDLE (See Fig. C).  
**NOTE:** TO AVOID DAMAGING FLOAT NEEDLE, DO NOT PRESS INTO SEAT



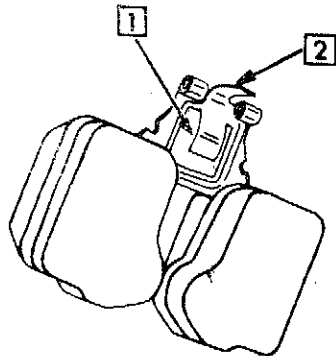
**FIG. B  
FLOAT DROP  
ADJUSTMENT**

1. POSITION AIR HORN ASSEMBLY RIGHT SIDE UP WITHOUT GASKET.
2. WITH FLOAT HANGING, MEASURE SPECIFIED DISTANCE FROM AIR HORN CASTING SURFACE TO TOP OF FLOAT.
3. IF ADJUSTMENT IS REQUIRED, BEND FLOAT DROP TANG (See Fig. C) THAT CONTACTS INLET NEEDLE SEAT BOSS.



**FIG. C  
FLOAT ASSEMBLY  
DETAIL VIEW**

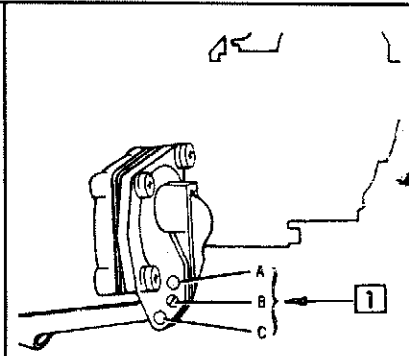
1. BEND THIS TANG TO ADJUST FLOAT LEVEL.
2. BEND THIS TANG TO ADJUST FLOAT DROP.



**FIG. D  
PUMP HOLE  
LOCATION**

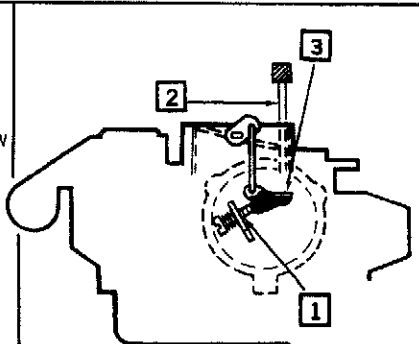
**NOTE:** THIS ADJUSTMENT HAS 3 HOLE LOCATIONS TO CONTROL LENGTH OF PUMP STROKE.

1. PLACE PIN IN CORRECT HOLE AS SPECIFIED:  
A - SHORT STROKE  
B - MEDIUM  
C - LONG



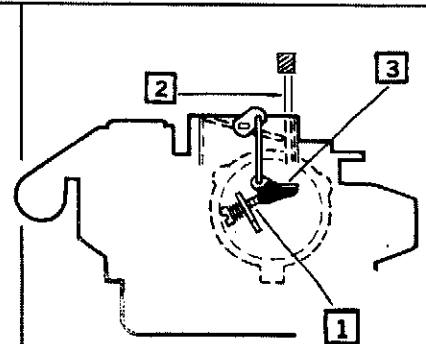
**FIG. E  
FAST IDLE CAM  
ADJUSTMENT  
MODEL 5200**

1. '71-'74 MODELS PLACE SCREW ON 2nd STEP. '75-'78 MODELS PLACE SCREW ON BOTTOM STEP OF FAST IDLE CAM.
2. USE A GAUGE OR DRILL TO MEASURE CLEARANCE BETWEEN LOWER EDGE OF CHOKE VALVE AND WALL WHILE CHOKE VALVE IS CLOSED.
3. CHOKE LEVER TANG SHOULD JUST TOUCH FAST IDLE CAM ARM. TO ADJUST, BEND TANG.



**FIG. F  
FAST IDLE CAM  
ADJUSTMENT  
MODEL 5210C**

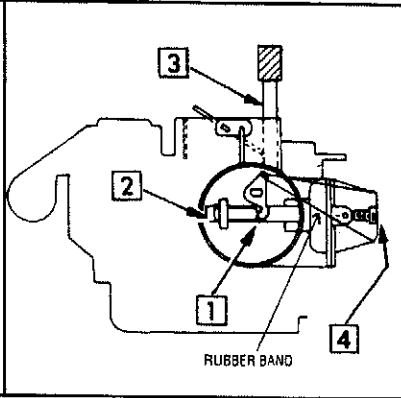
1. PLACE SCREW ON SECOND STEP. '76 CHEVROLET, PLACE SCREW ON BOTTOM STEP OF FAST IDLE CAM.
2. USE A GAUGE OR DRILL TO MEASURE CLEARANCE BETWEEN LOWER EDGE OF CHOKE VALVE AND WALL WHILE CHOKE VALVE IS CLOSED.
3. CHOKE LEVER TANG SHOULD JUST TOUCH FAST IDLE CAM ARM. TO ADJUST, BEND TANG.



## ADJUSTMENT DATA (Cont'd)

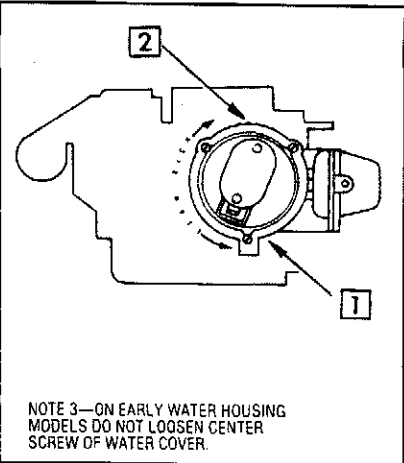
**FIG. G  
CHOKE PULLDOWN  
MODEL 5200**

1. '71-'77 MODELS PLACE SCREW ON TOP STEP. '78 MODELS PLACE SCREW ON 2nd STEP OF FAST IDLE CAM. ATTACH RUBBER BAND TO TAKE SLACK FROM CHOKE LINKAGE.
2. PUSH DIAPHRAGM ROD AGAINST STOP.
3. USE A GAUGE OR DRILL TO MEASURE CLEARANCE BETWEEN LOWER EDGE OF CHOKE VALVE AND WALL.
4. TO ADJUST, TURN SCREW.



**FIG. J  
AUTO CHOKE  
ADJUSTMENT**

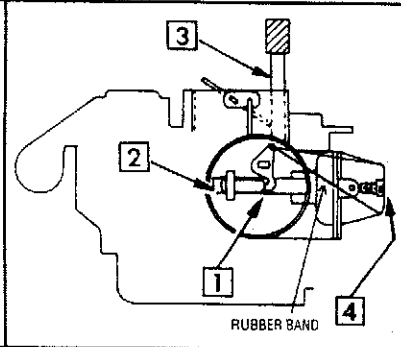
1. LOOSEN THREE CHOKE COVER SCREWS.
  2. ROTATE & ALIGN INDEX MARK ON CHOKE COVER WITH SPECIFIED LINE GRADUATION ON CHOKE HOUSING. RE-TIGHTEN SCREWS AFTER SETTING IS MADE.
- NOTE 1—WHEN INSTALLING CHOKE COVER, BE SURE TO ENGAGE CHOKE COIL LOOP WITH CHOKE LEVER TANG IN HOUSING.
- NOTE 2—G.M. MODELS USE TAMPER-PROOF SCREWS. FILE SCREW HEADS UNTIL COVER RETAINING RING CAN BE REMOVED.



NOTE 3—ON EARLY WATER HOUSING MODELS DO NOT LOOSEN CENTER SCREW OF WATER COVER.

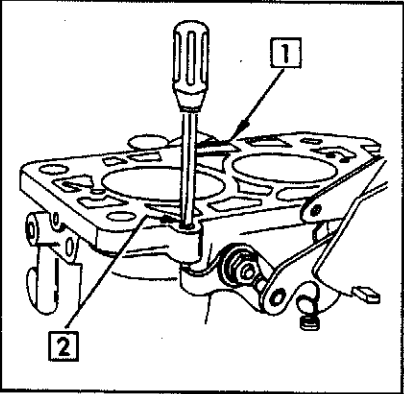
**FIG. H  
CHOKE PULLDOWN  
MODEL 5210**

1. ATTACH RUBBER BAND TO TAKE SLACK FROM CHOKE LINKAGE.
2. PUSH DIAPHRAGM ROD AGAINST STOP.
3. USE A GAUGE OR DRILL TO MEASURE CLEARANCE BETWEEN LOWER EDGE OF CHOKE VALVE AND WALL.
4. TO ADJUST, TURN SCREW.



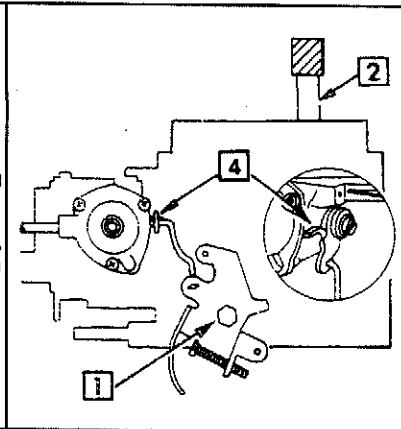
**FIG. K  
SECONDARY THROTTLE  
STOP SCREW ADJUSTMENT**

1. WITH CARBURETOR INVERTED, TURN OUT SECONDARY THROTTLE STOP SCREW UNTIL SECONDARY VALVE SEATS IN BORE.
2. ADJUST BY TURNING SCREW IN UNTIL IT TOUCHES TAB ON SECONDARY THROTTLE LEVER. THEN TURN SCREW AN ADDITIONAL 1/4 TURN CLOCKWISE.



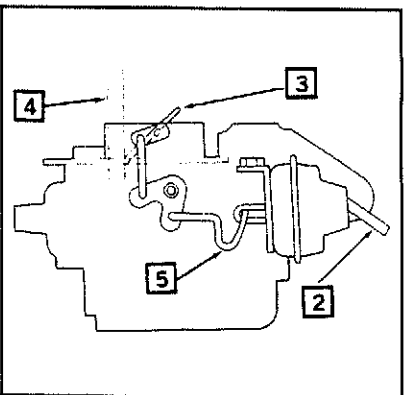
**FIG. I  
CHOKE UNLOADER  
ADJUSTMENT**

1. POSITION THROTTLE VALVES WIDE OPEN.
2. USE A GAUGE OR DRILL TO MEASURE CLEARANCE BETWEEN LOWER EDGE OF CHOKE VALVE AND WALL.
3. APPLY LIGHT PRESSURE ON TOP EDGE OF CHOKE VALVE TOWARD CLOSED POSITION.
4. TO ADJUST, BEND TANG



**FIG. L  
SECONDARY VACUUM BREAK  
MODEL 5210**

1. PLACE CAM FOLLOWER ON HIGH STEP OF FAST IDLE CAM.
2. APPLY OUTSIDE VACUUM SOURCE OF 10" HG. MIN.
3. APPLY LIGHT PRESSURE ON TOP EDGE OF CHOKE VALVE TOWARD CLOSED POSITION.
4. USE 13/32" GAUGE OR DRILL BETWEEN LOWER EDGE OF CHOKE VALVE AND WALL.
5. TO ADJUST, BEND LINKAGE HERE.



## SPECIFICATION CHART

SPECIFICATION I.D.	Year	Application	Float Level	Float Drop	Pump Hole No.	Fast Idle Cam	Choke Pull-down	Choke Unloader	Auto Choke
A	74	Ford Cars							
		2.8L Eng. -Fed., Calif., A,T & M/T	27/64"	1-1/8"	2	13/64"	13/64"	1/4"	1NR
	74	2.0L Eng. -Fed., Calif. -A/T, M/T Carb. No. R6976	15/32"	1-1/8"	2	5/32"	15/64"	1/4"	Index
	73-72	2.0L & 2.5L Eng. -Carb. Nos. R6309,-1,-3, R6310,-1,-3, 6311,-1, 6312,-1, 6345, R6503, 6504,-1, 6505, 6537	15/32"	1-1/8"	2	3/32"	13/64"	1/4"	1NL
	73-71	2.0L Eng.	27/64"	1-1/8"	2	7/64"	15/64"	1/4"	Index
	72	2.6L Eng. -Fed., Calif. -A.T., M.T.	27/64"	1-1/8"	2	5/32"	15/64"	1/4"	Index
	78-77	AMC Cars							
	2.0L Eng. -Carb. Nos. R7711, 7712, 8163, 8164	27/64"	1-1/8"	2	3/32"	3/16"	13/64"	1NR	
	Carb. Nos. 7799, 8165, 8167	27/64"	1-1/8"	2	3/32"	3/16"	13/64"	Index	
	Carb. No. 7846	27/64"	1-1/8"	2	3/16"	3/16"	19/64"	1NR	
	Carb. No. 8166	27/64"	1-1/8"	2	3/64"	9/64"	13/64"	1NR	
B	78-77	G.M. Cars							
		2.5L Eng. -Carb. Nos. R7520, 522, 787, 789	33/64" <sup>22</sup>	1-1/8"	2	7/64"	9/32"	21/64"	4NR
		Carb. No. R7531	33/64"	1-1/8"	2	5/32"	19/64"	21/64"	4NR
		Carb. No. R7532	27/64"	1-1/8"	2	3/32"	17/64"	11/32"	3NR
		Carb. Nos. R7703, 788	33/64"	1-1/8"	2	5/32"	9/32"	21/64" <sup>23</sup>	4NR
		Carb. Nos. R7720-1, 788-1	33/64"	1-1/8"	2	7/64"	1/4"	21/64"	4NR
		Carb. No. R7721-1	33/64"	1-1/8"	2	7/64"	9/32"	9/32"	2NR
		Carb. No. R7722-1	33/64"	1-1/8"	2	5/32"	19/64"	11/32"	2NR
		Carb. No. R7723-1	33/64"	1-1/8"	2	5/32"	19/64"	11/32"	2NR
		Carb. No. R7724-1	33/64"	1-1/8"	2	5/32"	19/64"	11/32"	2NR

## SPECIFICATION CHART (Cont'd)

SPECIFICATION I.D.	Year	Application	Float Level	Float Drop	Pump Hole No.	Fast Idle Cam	Choke Pull-down	Choke Unloader	Auto Choke
<b>B</b>	77	<b>GM Cars</b>							
		2.3L Eng. -Fed., Calif. Carb. Nos. R7530, 7531, 7532, 7533	27/64"	1-1/8"	2 <sup>9</sup>	1/8"	9/32" <sup>18</sup>	13/32"	3NR
	76	2.3L Eng. -Fed., Calif. Carb. Nos. R7380, 7384	27/64"	1-1/8"	2 <sup>10</sup>	5/16"	17/64"	3/8"	3NR <sup>11</sup>
		Carb. Nos. R7381, 7385	27/64"	1-1/8"	2	5/16"	9/32"	3/8"	3NR
	75	2.3L Eng. -Fed., Calif. -Carb. Nos. R6878, -1; 7219-2, 220-2, 221	27/64"	1-1/8"	2 <sup>12</sup>	5/16"	9/32"	3/8"	4NR <sup>13</sup>
		Carb. Nos. R6982, 984, -1; 7179, 7220, 222	27/64"	1-1/8"	2 <sup>14</sup>	7/64"	19/64"	3/8"	4NR <sup>15</sup>
		Carb. Nos. R6983, 985, -1; 7219, 7706, 8295	27/64"	1-1/8"	2	5/16" <sup>14</sup>	21/64"	3/8"	3NR
	74	2.3L Eng. -Carb. Nos. R6717, -1; 6719, -1, 7344, 8294	27/64"	1-1/8"	3 <sup>17</sup>	7/64" <sup>20</sup>	19/64" <sup>18</sup>	11/32"	1NR <sup>19</sup>
		Carb. Nos. R6718, -1, 720, -1 Carb. Nos. R7758, 8297	27/64"	1-1/8"	2	7/64" <sup>20</sup>	13/32"	11/32"	3NR
	73	2.3L Eng. -Carb. Nos. R6477, 6581, 7179, 8293	27/64"	1-1/8"	3	7/64"	13/32"	11/32"	3NR
		Carb. Nos. R6478, 6580	27/64"	1-1/8"	2	7/64"	19/64"	11/32" <sup>21</sup>	1NR
		Carb. No. R8296	27/64"	1-1/8"	3	7/64"	13/64"	11/32"	2NR 3NR
<b>F</b>	74, 76, 76 1/2 76, 76 1/2	<b>Ford Cars</b>							
		2.3 Eng. -Fed., Calif. -A/T, M/T -Carb. Nos. 7598; R7600; R7801-1, 803, 805; 7904, 934, 945, 948, 950; 8140, 142	15/32"	1-1/8"	2	7/64"	15/64"	15/64"	1NR
		Carb. Nos. 7543, 547, -1, 599; 7601; 7933, 935	15/32"	1-1/8"	2	7/64"	15/64"	1/4"	2NR
		Carb. Nos. 7546, 550, 552; 7801, 802	15/32"	1-1/8"	2	7/64"	15/64" <sup>15</sup>	1/4"	Index
		Carb. Nos. 7795; 7895, 897; 7901	15/32"	1-1/8"	2	7/64"	15/64" <sup>16</sup>	7/32"	2NR
		Carb. Nos. 7861, 863; R8081	15/32"	1-1/8"	2	5/64"	13/64"	1/4"	Index
		2.3L Eng. -Fed., Calif., Can. M/T & A/T	15/32"	1-1/8"	2	5/32"	9/32" <sup>11</sup>	1/4"	Index
		Carb. Nos. R7322, -1, 324, -1, 326, -1, 328, -1, 352, 354; R7609, -1, 613, -1, R7880, 882	15/32"	1-1/8"	2	7/64"	15/64"	1/4"	Index
		2.3 Eng. -Carb. Nos. 7355; R7591, -1; R7615, 617, -1, 619, 623, -1, 685	15/32"	1-1/8"	2	3	17/64" <sup>12</sup>	1/4"	1NL
		Carb. Nos. 7621, R7629	15/32"	1-1/8"	2	3	3	1/4"	3
	Carb. Nos. 7608, -1	15/32"	1-1/8"	2	5/64"	13/64"	1/4"	Index	
	Carb. Nos. 7203, 205	15/32"	1-1/8"	2	11/64"	1/4"	1/4"	1NR	
	2.6L Eng. -Swedish -Carb. Nos. 7592, 593	27/64"	1-1/8"	2	7/64"	1/4"	1/4"	1NL	
	2.3L Eng. -Fed., Calif. M/T & A/T	15/32"	1-1/8"	2	3/32"	13/64"	1/4"	1NL	
	2.8L Eng. -Fed., Calif.	15/32"	1-1/8"	2	13/64"	13/64"	1/4"	1NR	
	<b>G</b>	86-83 82-79	<b>GM Cars</b>						
1.6L Eng. -Canada			3	3	3	3	3	3	3
82-79		1.6L Eng. -Carb. Nos. R8195, 196, 197, 198, 254, 255, 256, 257	27/64"	1-1/8"	1	7/64"	1/8"	11/32"	2NR
		Carb. Nos. R8199, 8201, 202, 258, 259, 260, 261	27/64"	1-1/8"	1	1/8"	9/64"	11/32"	1NR
		Carb. Nos. R8395, 396, 397, 398	1/2"	1-1/8"	1	1/8"	19/64"	11/32"	2NR
		Carb. Nos. R8661, 662, 663, 664, 665, 667, 668; 9475, 476	1/2"	1-1/8"	1	7/64"	19/64"	1/32" <sup>24</sup>	Index <sup>25</sup>
	Carb. Nos. 9671, 672	1/2"	1-1/8"	1	3/32"	9/32"	9/32"	Index <sup>26</sup>	

### FOOTNOTES:

- <sup>1</sup> Carb. Nos. R6655, R7199, R7202, R7204, R7625, -1, R7627, R7631 set 15/64"; Carb. No. R7606 set 13/64".
- <sup>2</sup> Carb. Nos. R7615, R7623, -1A set 15/64".
- <sup>3</sup> Specification Data not available.
- <sup>4</sup> Carb. No. R7012 set 9/32".
- <sup>5</sup> Carb. No. R7794 set 9/32".
- <sup>6</sup> Carb. Nos. R7899, R7903 set 9/32".
- <sup>7</sup> Carb. Nos. R7532, 533 set 1/8".
- <sup>8</sup> Carb. Nos. R7558, 540 set 19/64".
- <sup>9</sup> Carb. Nos. R7530, 532, 536, hole no. 1.
- <sup>10</sup> Carb. Nos. R7379, 383, hole no. 3; <sup>11</sup> Set 2NR.
- <sup>12</sup> Carb. Nos. R7219-2, 7221, hole no. 3; <sup>13</sup> Set 3NR.
- <sup>14</sup> Carb. No. R7179, hole no. 3; <sup>15</sup> Set 1NR.
- <sup>16</sup> Carb. No. R6983 set 9/64"; Carb. No. R6985 set 7/64".
- <sup>17</sup> Carb. No. R6717-1, no. 2.
- <sup>18</sup> Carb. No. R6719 set 13/32"; <sup>19</sup> Set 2NR.

- <sup>20</sup> Carb. No. R6718-1, 6720-1 set 9/64".
- <sup>21</sup> Carb. No. R7179 set 3/8".
- <sup>22</sup> Carb. No. R7520 set 1/2".
- <sup>23</sup> Carb. No. R7788 set 13/32".
- <sup>24</sup> Carb. No. R9475, 476 set 9/32".
- <sup>25</sup> Carb. No. R8665, 667 set 1NR.
- <sup>26</sup> Carb. No. R9672 set 1NR.

### ABBREVIATIONS:

A/T - Automatic Transmission  
M/T - Manual Transmission  
Therm. - Thermostat  
Assy. - Assembly  
Diaph. - Diaphragm  
NR - Notches Rich  
NL - Notches Lean