

# FUEL SYSTEM

## SERVICE INSTRUCTION WORKSHEET

TO REPAIR

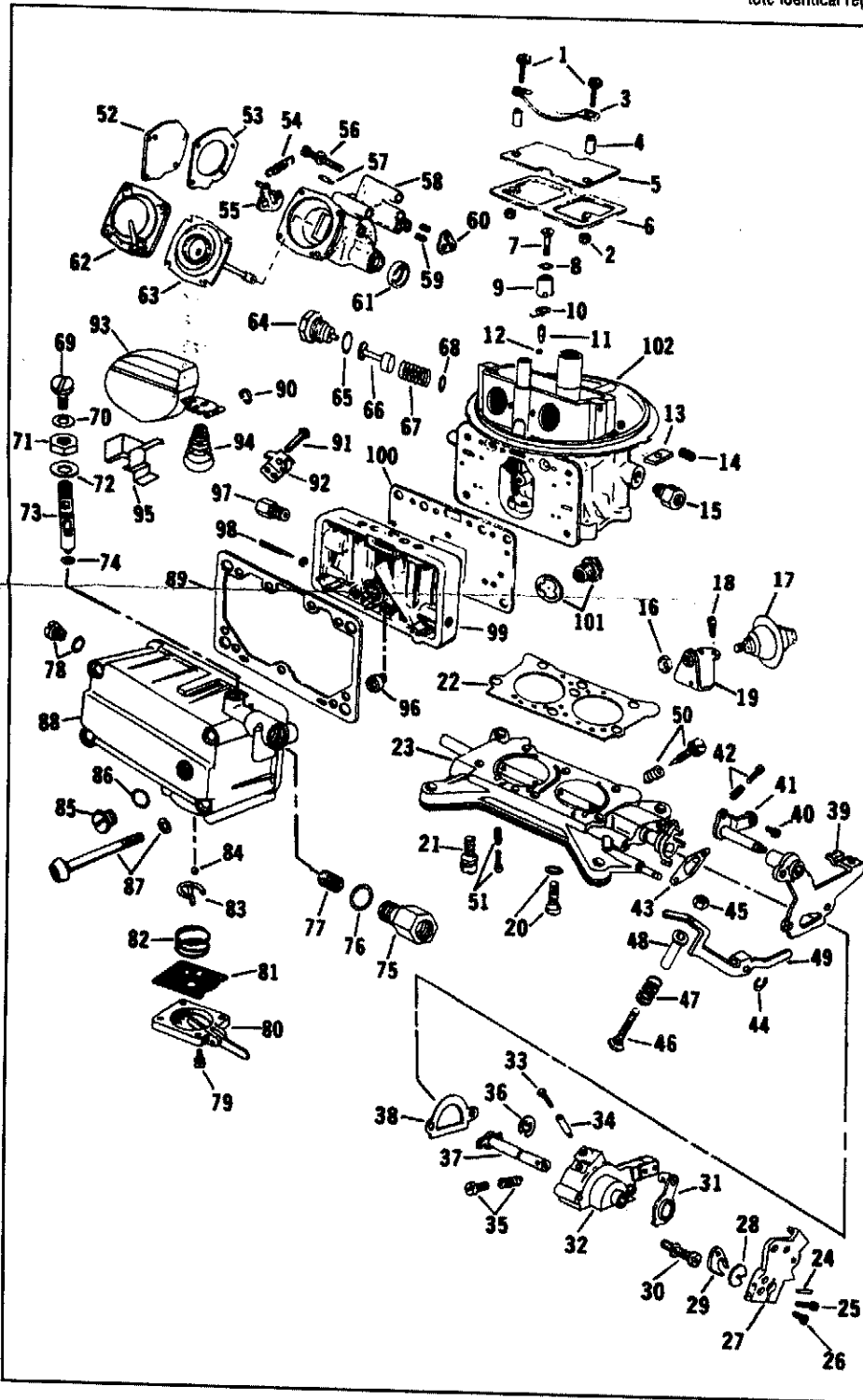
GF3569-9

HOLLEY CARBURETOR

2 BARREL—Model 2300, 2300G, 2300MG

- Carefully read the text in the following pages to become familiar with the contents of this worksheet before performing carburetor overhaul.
- The exploded view is typical of the model carburetor this kit will service. The view may differ slightly from the actual carburetor being overhauled.

- Use the exploded view as a guide. The numerical sequence may generally be followed to disassemble the carburetor far enough to permit cleaning and inspection.
- Parts list shown DOES NOT reflect the contents of the kit.
- Kit may contain extra parts intended for other carburetors within this group. Substitute identical replacement parts for original worn parts found in carburetor.



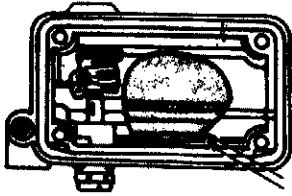
### CLEANING

Cleaning must be done with carburetor disassembled. Cover opening on intake manifold after carburetor is removed. Soak parts in cleaning solvent long enough to soften foreign matter.  
**Caution:** Do not soak parts made of rubber, leather, plastic or electrical parts. Remove all loose particles and dirt using a stiff brush. Do not use abrasives. Do not use a metal wire to clean out passageways and jets. Wash off in suitable solvent. Clear all passageways and jets with compressed air.

### PARTS LIST

- |  |  |
|--|--|
| 1. Screw, choke plate (2)                  | 52. Cover, governor body                       |
| 2. Lock nut (2)                            | 53. Gasket                                     |
| 3. Spring, choke plate cover               | 54. Spring, governor                           |
| 4. Spacer (2)                              | 55. Lever Assy., governor                      |
| 5. Choke plate cover                       | 56. Screw, governor housing                    |
| 6. Choke plate                             | 57. Spring pin (long)                          |
| 7. Screw, pump discharge nozzle            | 58. Governor body Assy.                        |
| 8. Washer                                  | 59. By-pass jet, governor (2)                  |
| 9. Nozzle, pump discharge                  | 60. Gasket, governor body                      |
| 10. Washer                                 | 61. Seal, governor body                        |
| 11. Needle valve or pump check ball weight | 62. Cover, governor diaphragm                  |
| 12. Check ball                             | 63. Diaphragm Assy.                            |
| 13. Seal, choke rod                        | 64. Plug, anti-backfire                        |
| 14. Piston spring screw, anti-backfire     | 65. Washer                                     |
| 15. Fitting                                | 66. Piston, anti-backfire                      |
| 16. Nut, dashpot                           | 67. Spring, piston                             |
| 17. Dashpot assembly                       | 68. Spacer, piston spring                      |
| 18. Screw, dashpot bracket                 | 69. Lock screw, fuel valve seat                |
| 19. Bracket, dashpot                       | 70. Washer                                     |
| 20. Screw & washer, throttle body (2)      | 71. Adj. nut, fuel valve seat                  |
| 21. Screw & L.W., throttle body (3)        | 72. Washer                                     |
| 22. Gasket, throttle body                  | 73. Needle & seat Assy.                        |
| 23. Throttle body Assy.                    | 74. Washer or o-ring seal                      |
| 24. Pin, throttle lever                    | 75. Fitting, fuel inlet                        |
| 25. Screw, throttle lever                  | 76. Washer                                     |
| 26. Screw, pump cam                        | 77. Filter screen                              |
| 27. Throttle lever                         | 78. Plug & washer, fuel lever check            |
| 28. Guide, pump oper. lever                | 79. Screw, fuel pump cover (4)                 |
| 29. Pump cam                               | 80. Cover, fuel pump                           |
| 30. Screw, housing Assy. (2)               | 81. Pump diaphragm Assy.                       |
| 31. Pick-up lever & swivel Assy.           | 82. Spring, diaphragm return                   |
| 32. Throttle oper. shaft housing Assy.     | 83. Retainer, pump check ball                  |
| 33. Adj. screw, fast idle pin              | 84. Pump check ball*                           |
| 34. Pin, fast idle                         | 85. Plug, float adj.                           |
| 35. Screw & spring, throttle stop          | 86. Washer                                     |
| 36. Retainer, throttle oper. shaft         | 87. Screw & washer, fuel bowl to main body (4) |
| 37. Throttle oper. shaft                   | 88. Fuel bowl Assy.                            |
| 38. Gasket                                 | 89. Gasket, fuel bowl                          |
| 39. Back-up plate & bearing Assy.          | 90. Retainer, float                            |
| 40. Screw, shaft & lever Assy.             | 91. Rod, float lever                           |
| 41. Shaft & lever Assy.                    | 92. Adapter, float hinge                       |
| 42. Screw & spring, throttle stop          | 93. Float Assy.                                |
| 43. Gasket, throttle shaft                 | 94. Spring, float                              |
| 44. Retainer, pump oper. lever             | 95. Baffle plate                               |
| 45. Nut, pump oper. lever                  | 96. Jet, main (2)                              |
| 46. Adjusting screw                        | 97. Spark fitting                              |
| 47. Spring, adj. screw                     | 98. Needle & seal, idle adj.                   |
| 48. Guide, adj. screw                      | 99. Main metering body Assy.                   |
| 49. Pump oper. lever                       | 100. Gasket, metering body                     |
| 50. Needle & spring, idle adj.             | 101. Power valve & gasket                      |
| 51. Screw & spring, fast idle cam lever    | 102. Main body Assy.                           |

\* If an umbrella check valve is used, coat stem with grease for easier installation.



ADJUST FLOAT  
PARALLEL  
TO BOWL FLOOR

FIG. 1

**FLOAT SETTING** (Except Chrysler; use gauge.)

The following adjustment procedure applies to carburetors with fuel bowls which have adjustable needles and seats. With fuel bowl inverted, adjust float parallel to bowl floor. The same setting is necessary for carburetors incorporating brass floats to obtain a dry setting.

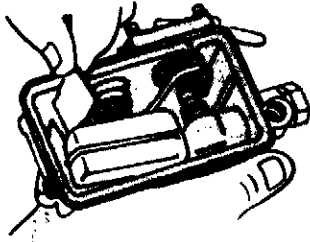


FIG. 2

**FLOAT SETTING**

The following adjustment procedure applies to carburetors with non-adjustable needles and seats. Invert carburetor fuel bowl and install gauge as shown. Bend float lever tab to bring float setting within limits.

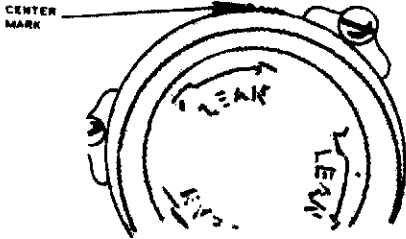


FIG. 3

With choke set on center mark, maximum permissible adjustment is two notches either rich or lean. Use the same procedure for divorced choke applications.

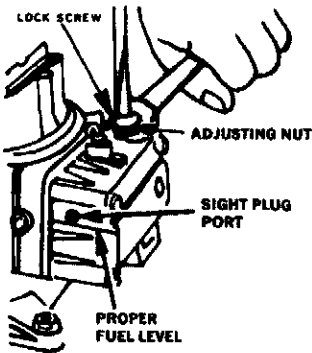


FIG. 4

**WET LEVEL ADJUSTMENT — After Carburetor is Installed**

With the car on a level surface and engine running, the fuel level should be on line with the threads at bottom of sight plug port. ( $\pm 1/32$ " tolerance.) Loosen the lock screw and turn the adjusting nut clockwise to lower the fuel level; turn counterclockwise to raise the fuel level. Retighten lock screw while holding adjusting nut. Do not run engine with lock screw loose.

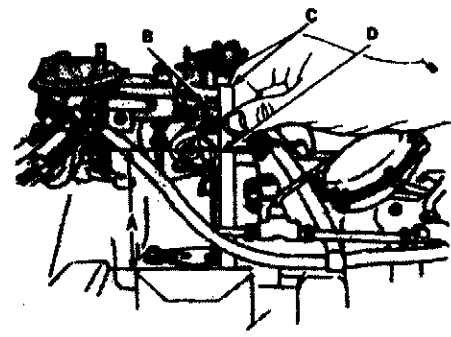


FIG. 5 **CHOKE CONTROL LEVER QUALIFYING ADJUSTMENT**

The adjustment is made before setting the fast idle cam, vacuum break or unloader; and can be done on the bench or on the car. Open the throttle valve and hold the choke valve closed with light pressure on the choke control lever.

Use scale "C" to measure dimension "A" from the top of the choke rod hole to the choke cover ( $3-49/64 \pm 1/64$ ") or, on the bench  $1-23/32 \pm 1/64$ " to the base of the carburetor. To adjust, carefully bend the link "B" just under the air cleaner flange on the air horn. Recheck for free movement of links and levers.

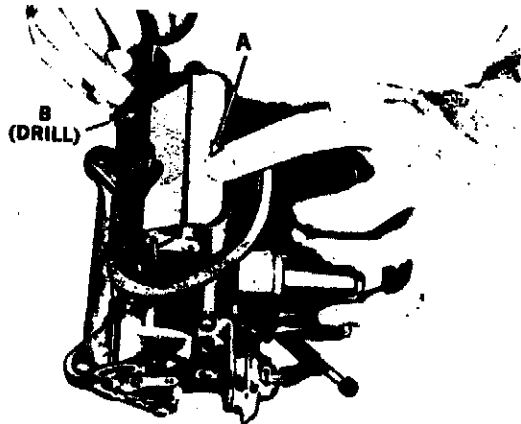


FIG. 5A

**UNLOADER ADJUSTMENT** (See Fig. 5A)

With throttle wide open, close choke valve gently at "A" and measure clearance "B" between lower edge of choke valve and wall of air horn. See specification chart. To adjust, bend choke rod at offset bend.

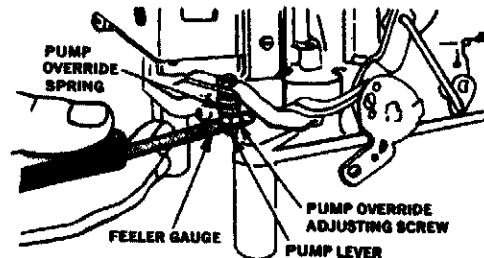


FIG. 6

**PUMP ADJUSTMENT**

- (1) Check the pump override spring adjustment by holding the throttle in the wide open position and the pump operating lever held in a fully compressed position. The clearance between the adjusting nut and arm of the pump lever should be .015 ( $1/64$ ").
- (2) After adjusting, move the throttle lever from a closed toward open position. Movement at the throttle lever should be noticed at the pump operating lever, thus indicating correct tip-in.

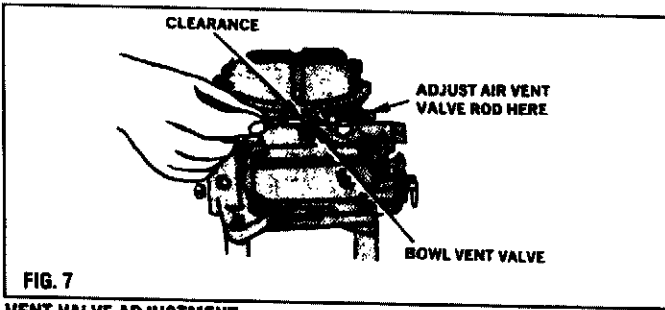


FIG. 7

**VENT VALVE ADJUSTMENT**

- (1) Adjust air vent rod and valve as follows: Check the clearance from valve to seat with a drill with choke open and throttles closed. The clearance must be .050 to .070.
- (2) The clearance of the air vent valve on early production low inlet fuel bowl models with a different vent rod is corrected by bending the end of the pump operating lever. On later models, bend the rod as shown in Figure 7.

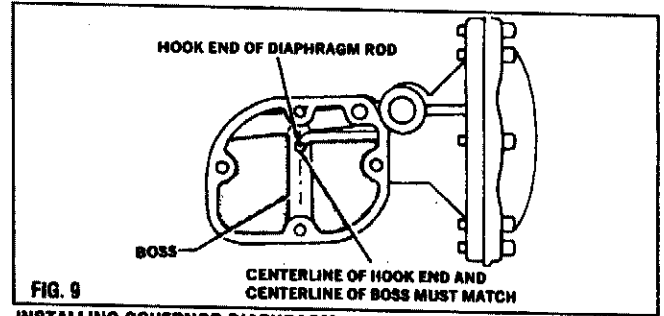


FIG. 9

**INSTALLING GOVERNOR DIAPHRAGM**

*Governor Type Only:* When reassembling the governor assembly, place the diaphragm and diaphragm cover in position. Insert cover screws and lockwashers. Turn the screws in until the flanges almost meet, but do not tighten. Stretch and hold diaphragm rod by hand until center line of hook end of rod and center line of the boss match. Then tighten screws evenly while maintaining diaphragm stretched in this position.

**After Installing the Carburetor on the Vehicle—**

Depress and release throttle to make sure of complete throttle plate opening and closing.

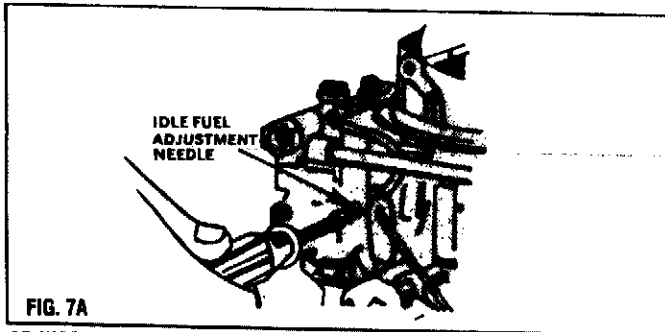


FIG. 7A

**ADJUSTING THE IDLE**

After seating the idle adjusting needle lightly, back off one full turn. After engine has been brought to operating temperature, readjust to proper idle speed and mixture. Note that some applications will have the idle fuel adjustment needle located in the throttle body.

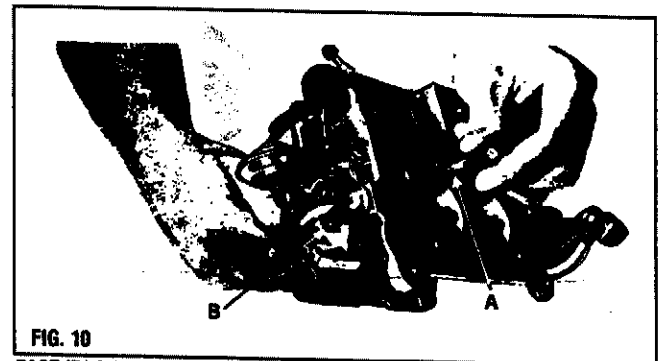


FIG. 10

**FAST IDLE CAM ADJUSTMENT**

Open throttle valve slightly and close choke valve so that fast idle lever tang is against top step of fast idle cam. Close throttle valve and measure clearance "A" between edge of throttle valve and throttle body wall on idle transfer slot side. To adjust, bend fast idle lever "B".

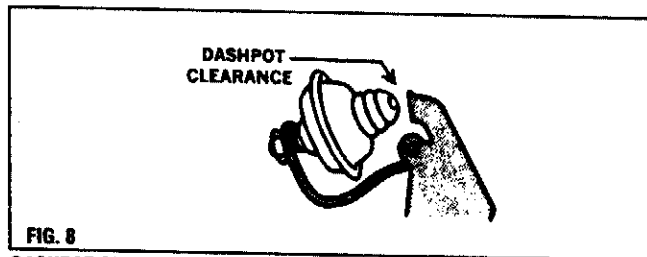


FIG. 8

**DASHPOT CLEARANCE (See arrow)**

With choke plate open and throttle plates in closed position with dashpot fully depressed, the clearance should be .060 to .090.

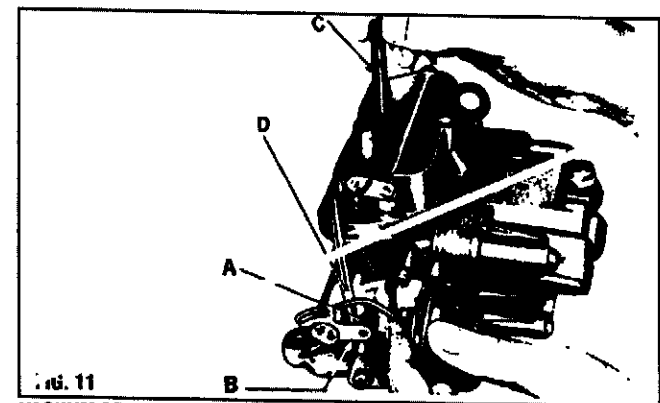


FIG. 11

**VACUUM BREAK ADJUSTMENT**

While holding vacuum break rod against stop "A", close choke valve at lever "B" so that vacuum break connector rod is at end of slot in lever. Measure clearance "C" between lower edge of choke valve and wall of air horn. To adjust, bend connector rod "D".

## SPECIFICATIONS BY APPLICATION

Year	MODEL	Float Level (Dry) Fig. 1 & 2	Fuel Level (Wet) Fig. 4	Fast Idle Fig. 10	Vacuum Break Fig. 11	Bowl Vent Fig. 7	Choke Unloader Fig. 5A	Dashpot Clearance Fig. 8	Choke Setting Fig. 3
<b>JEEP — SPECIFICATION I.D.-A</b>									
1965-62	230 Eng.	1	2	—	—	1/16"	3/16"	1/16"	Index
<b>CHEVROLET — SPECIFICATION I.D.-B</b>									
1969-67	427 Eng. Carb. No. R3659 (Secondary)	11/32" <sup>3</sup> 11/32" <sup>3</sup>	—	1/32"	1/4"	—	9/32"	—	—
<b>CHRYSLER MARINE — SPECIFICATION I.D.-B</b>									
1972-70	440 Eng. (3 x 2 Bbl. Carb.)	1	2	—	11/64"	—	23/64"	—	Fixed
<b>DODGE, PLYMOUTH — SPECIFICATION I.D.-B</b>									
1972-70	340, 440 Eng. <sup>6</sup> Carb. No. R6404	1	2	—	—	3/32"	5/32"	—	2NR <sup>7</sup> Fixed
1969	440 Eng. -Carb. Nos. R4391, 92 -Carb. Nos. R4393, 94	9/16" <sup>6</sup> 3/4" <sup>8</sup>	2	—	11/64"	1/32"	21/64"	—	2NR
<b>DODGE TRUCKS — SPECIFICATION I.D.-C</b>									
1973-69	361, 413 Eng.	1	2	1/32"	—	—	—	—	—
<b>WHITE-DIAMOND REO — SPECIFICATION I.D.-D</b>									
Prior '66	130, 145, 170, 185, 186, 200, 470A, 490A Eng.	1	2	—	—	—	—	—	—
<b>IHC TRUCKS — SPECIFICATION I.D.-E</b>									
1974-68	304, 345 Eng. - Exc. Carb. No. R4593, -1; 4595 Carb. No. R6380-1; 6393; 6394, -1, -2	1 1 1	2 2 2	— — —	9/32 13/64	— —	15/64 15/64	— <sup>17</sup> — <sup>20</sup> — <sup>17, 20</sup>	Index 4NL <sup>18</sup>
<b>DODGE TRUCKS — SPECIFICATION I.D.-F</b>									
1977-74	361, 413 Eng.	1	2	—	—	—	—	—	—
<b>IHC TRUCKS — SPECIFICATION I.D.-G</b>									
1974-69	304, 345 Eng. - Exc. Carb. No. R4595-1, -2; 6207-1 Carb. No. R6380, -2; 6386,-1 Carb. No. R6393-1, -2	1 1 1	2 2 2	— — —	9/32 13/64 13/64	— — —	15/64 15/64 15/64	— <sup>20</sup> 7/64 7/64	— 4NL 1NL
<b>AMC — SPECIFICATION I.D.-H</b>									
1976-75	304 Eng.	1	2	—	1/8	—	13/64	—	1NR
<b>FORD, MERCURY — SPECIFICATION I.D.-H</b>									
1976-75	302 Eng.	1	2	—	3/32	1/64	13/64	—	1NR
<b>FORD TRUCKS — SPECIFICATION I.D.-H</b>									
1972-62	302, 351, 360 Eng. - Exc. Carb. No. R8000; R8223	1 1	2 2	— —	3/32 3/32	— 1/64	13/64 13/64	— —	1NL <sup>9</sup> 1NR
<b>JEEP — SPECIFICATION I.D.-I</b>									
1974-68	290, 304, 343, 360 Eng.	1	2	—	1/8	—	13/64	—	1NR
<b>SPECIFICATION I.D.-I</b>									
<b>AMC</b>									
1974-68	304, 360 Eng. Carb. Nos. R4517,-1 Carb. Nos. R6513; R6986	1 1	2 2	— —	— 3/16"	1/16" —	13/64" 13/64"	1/8" —	Index <sup>9</sup> Index <sup>9</sup>
1964-63	250, 287, 328 Eng. Carb. Nos. R2040,-1; 2228 Carb. Nos. R2442, 2463 Carb. Nos. R2442-1, 2463-1,-2; R3075	1 1 1	2 2 2	1/32" 1/32"	— —	1/16" 1/16"	— —	3/32" 3/32"	1NR Index
<b>EDSEL</b>									
1960-59	292, 332 Eng.	1	2	—	—	1/16"	—	5/64"	Index <sup>9</sup>

## SPECIFICATIONS BY APPLICATION (Cont'd)

Year	MODEL	Float Level (Dry) Fig. 1 & 2	Fuel Level (Wet) Fig. 4	Fast Idle Fig. 10	Vacuum Break Fig. 11	Bowl Vent Fig. 7	Choke Unloader Fig. 5A	Bashpot Clearance Fig. 8	Choke Setting Fig. 3
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### (Cont'd) SPECIFICATION I.D.-I

#### FORD, MERCURY

1973-65	289, 302, 351, 390, 400, 429 Eng.	1	2	—	5/64"	1/16"	13/64"	— <sup>11</sup>	Index
	Carb. Nos. R4439, 4643	1	2	—	5/64" <sup>12</sup>	—	13/64"	—	Index
	Carb. Nos. R6294, 6433, 33-1 Carb. Nos. R6294-1, 6855,-1,-2	1	2	—	3/32"	—	13/64"	—	Index 2NL <sup>9</sup>
1973-57	221, 260, 272, 289, 292, 302, 312, 332, 351, 352, 383, 390, 406 Eng.	1	2	—	—	1/16"	—	5/64"	1NR
	Carb. Nos. R1797-1, 98-1; 1924; 2049, 50, 65; 2603; 3485, 86	1	2	—	—	1/16"	—	5/64"	Index
	Carb. Nos. R1806,-1; 1807,-1; R1929,-1	1	2	—	—	—	—	—	Index
	Carb. Nos. R2436, 37; 2867, 68, 81; 3208	1	2	—	—	—	—	—	Index
	Carb. Nos. R1863, 64; 2014, 15, 31; 3114, 3487, 88	1	2	—	—	1/16"	—	5/64"	2NL
	Carb. Nos. R2497, 98, 99	1	2	—	—	— <sup>14</sup>	—	—	—
	Carb. No. R4446	1	2	—	5/64"	1/16"	3/16"-15/64"	—	Index
Carb. No. R7108	1	2	—	7/64"	—	13/64"	—	Index 1NL	

#### FORD MARINE

1973-71	302 Eng.	1	2	—	9/64"	—	19/64"	—	Index
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#### FORD TRUCKS

1972-70	302, 360, 390 Eng.	1	2	—	5/32"	—	13/64"	7/64"	1NR
	Carb. No. R6221	1	2	—	5/32"	—	13/64"	—	1NL
1971-59	272, 289, 292, 302, 330, 352, 360, 390 Eng.	13/64" <sup>9</sup>	2	—	—	—	—	5/64"	—
	Carb. Nos. R1835, 36	13/16" <sup>8</sup>	2	—	—	—	—	—	—
	Carb. Nos. R1837, 66, 68	1	2	—	—	—	—	—	—
	Carb. Nos. R4476; 6470; 4014; 4032; 4476, 77	1	2	—	—	1/16"	—	—	—
	Carb. Nos. R2012,-1; 2234; 2488	1	2	—	—	—	—	5/64"	—
	Carb. Nos. R2011,-1; 2013,-1; 2233, 35	1	2	—	—	—	—	—	—
Carb. Nos. R4015	1	2	—	—	1/16"	—	5/64"	—	

#### FRONTENAC TRUCKS

1968-64	260 Eng.	1	2	—	—	1/16"	—	5/64"	Index
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#### IHC TRUCKS

1974-59	266, 304, 345 Eng.	1	2	—	—	—	—	5/64"	—	
	Carb. Nos. R1710-1,-2,-3,-4,-5,-6; R1711-1,-2; 2976,-2,-3; 2978-2, 2978-3; 3551; 3552,-1,-2; 3855; 3865,-1,-2; 3868,-1,-2; 3872,-1,-2; 4079,-2; 4083,-1,-2	1	2	—	—	—	—	—	—	—
	Carb. Nos. R2582,-1; 2583; 2977, 2977-2,-3; 2978; 3551-1; 3855-1; 3863,-1,-2; 3870,-1; 3991,-2; 4081,-1,-2; 3864	1	2	—	—	—	—	—	—	—
	Carb. Nos. R2520-1,-2,-3,-4; 3503-2,-3; 3679-1; 3869,-1,-2	1	2	—	1/4"	—	—	5/64"	—	— <sup>7</sup>
	Carb. Nos. R3502-2; 3679-2; 3864-1,-2; 3866,-1,-2; 3867,-1,-2; 3936-2,-3; 3937-2	1	2	—	1/4"	—	—	—	—	—
	Carb. Nos. R4082,-1,-2; 4084,-1,-2	1	2	—	3/16"	—	—	—	—	Index <sup>18</sup>
	Carb. Nos. R4078,-1,-2; 4080,-1,-2	1	2	—	7/32"	—	—	—	—	2NL
	Carb. No. R3871-1	1	2	—	11/64"	—	—	—	—	1NL
	Carb. No. R3873-1,-2	1	2	—	11/64"	—	—	—	—	1NR
							11/64"	5/64"	—	2NR

#### FORD, KIEKHAEFER, PALMER MARINE

1973-71	302 Eng. -Exc. Carb. No. R6317 -Carb. No. R6317	1	2	—	9/64"	—	9/32"-21/64"	—	Index <sup>23</sup>
		1	2	—	9/64"	—	9/32"-19/64"	—	Index

## SPECIFICATIONS BY APPLICATION (Cont'd)

Year	MODEL	Float Level (Dry) Fig. 1 & 2	Fuel Level (Wet) Fig. 4	Fast Idle Fig. 10	Vacuum Break Fig. 11	Bowl Vent Fig. 7	Choke Unloader Fig. 5A	Dashpot Clearance Fig. 8	Choke Setting Fig. 3
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### (Cont'd) SPECIFICATION I.D.-I

#### LINCOLN

1961-60	430 Eng.	1	2	—	—	1/16"	—	5/64"	2NL
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#### FORD TRUCKS — SPECIFICATION I.D.-J

1978-73 1972-61	330, 359, 361 Eng. 302, 330, 332, 359, 361, 401, 477, Eng. Exc. Carb. No. R6336, 37, 38	1	2	—	9/32	—	—	—	—
		1	2	—	—	—	—	—	—
		1	2	—	9/32	—	—	—	—

#### IHC TRUCKS

1974-64 1963-59	345 Eng. w/Manual Choke 304 Eng.	1	2	—	—	—	—	—	—
		1	2	—	—	—	—	—	—

### FOOTNOTES

- <sup>1</sup> See text, Fig. 1.
- <sup>2</sup> See text, Fig. 4.
- <sup>3</sup> See text, Fig. 4, but use a gauge for clearance.
- <sup>4</sup> See service manual.
- <sup>5</sup> Except for float level, all other adjustments are applicable to center carburetors only.
- <sup>7</sup> Carb. Nos. R3864; R4595-2; R4791, 92; R6207-1 set Index.
- <sup>8</sup> See text, Fig. 2.
- <sup>9</sup> Carb. Nos. R1843, 44; R4517; R6294-1; R6986; R8227 set 1NR.
- <sup>11</sup> Carb. No. R4843 set 1/8".
- <sup>12</sup> Carb. No. R6294 set 5/32".
- <sup>14</sup> Carb. No. R4027 set 1/16".
- <sup>15</sup> Carb. Nos. R3936-2,-3 set 13/64".
- <sup>17</sup> Carb. Nos. R3866,-1,-2; R3936-2,-3; R4080,-1,-2; R4084,-1,-2; R4308,-1; R4309-1; R6392; R6394,-1,-2 set 5/64".
- <sup>18</sup> Carb. Nos. R3502-2; 3679-2; R3867,-1,-2; R4309-1; R6393; R6394,-1,-2 set 1NL.
- <sup>19</sup> Carb. Nos. R4082; R4084-2 set 11/64".
- <sup>20</sup> Carb. Nos. R4594-1,-2; R4595; R6206,-1; R6379,-1,-2; R6380-1 set 7/64".
- <sup>21</sup> Carb. No. R4084 set between 3/32" - 5/32".
- <sup>22</sup> Carb. Nos. R4078; R4080 set 15/64".
- <sup>23</sup> Carb. Nos. R6317-1 set 3NL.

### ABBREVIATIONS

Adj.	Adjusting
Assy.	Assembly
L.W.	Lock Washer
N.L.	Notch Lean
N.R.	Notch Rich
Oper.	Operating