

# FUEL SYSTEM

## SERVICE INSTRUCTION WORKSHEET

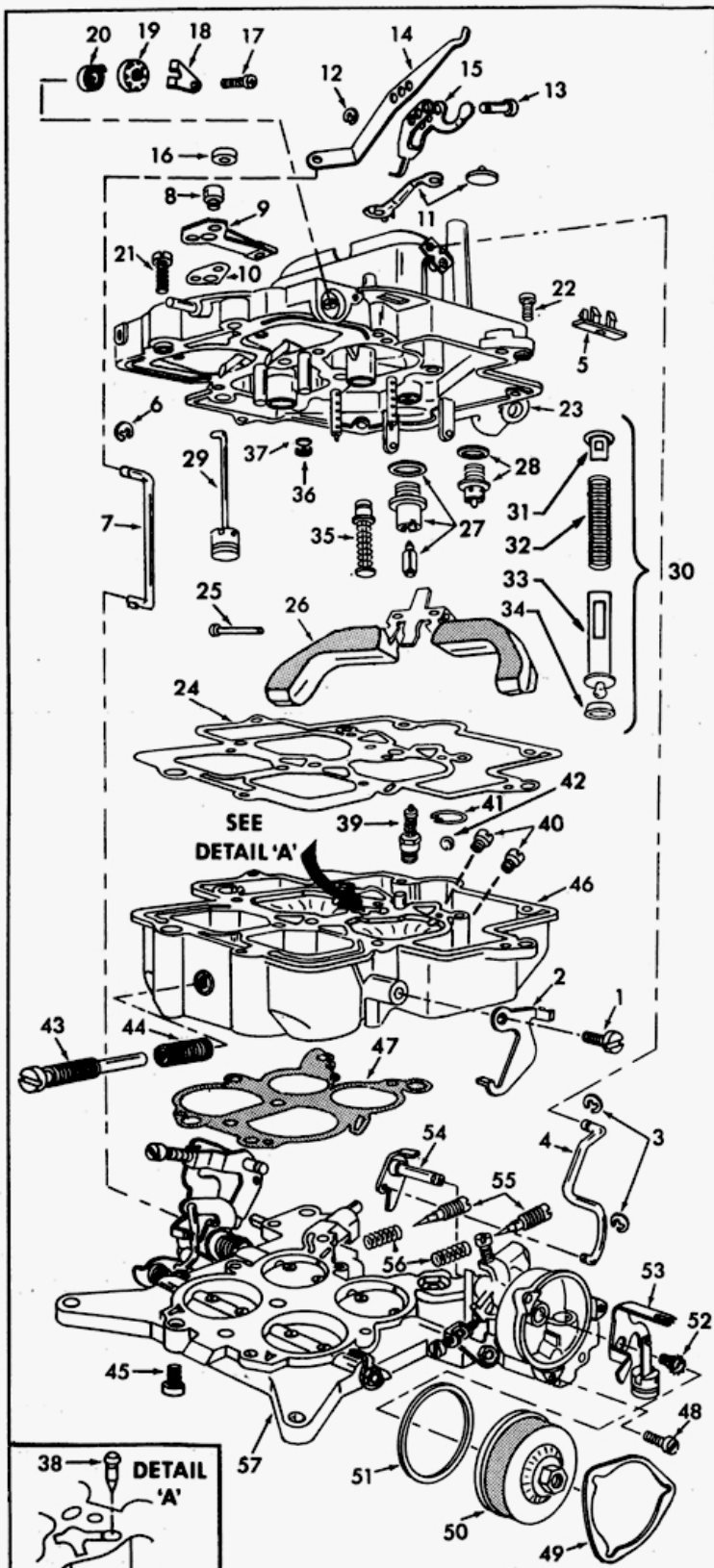
TO REPAIR

GF3802-1

MOTORCRAFT CARBURETOR

4 BARREL—MODEL 4300

### TYPICAL ILLUSTRATION



☐ PARTS LIST SHOWN DOES NOT REFLECT THE CONTENTS OF THE KIT

Printed in U.S.A.

1. Carefully read the text in 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.

### DISASSEMBLY & ASSEMBLY NOTES

1. Cover opening on intake manifold after carburetor is removed.
2. Remove staking from air horn assembly for easy removal of power piston assembly, (35).
3. If idle mixture screws, (55), have limiter caps, use sheet metal screw to remove caps.
4. Assemble in reverse order of disassembly.
5. Install float rod, (25), with its head on pump side.
6. After installation of power piston, (35), stake casting of air horn around washer.
7. Install retainer, (36), flush with air horn casting. Parts 36 and 37 not required after 1971.
8. Make sure to install long screw, (21), in same place shown.
9. Make sure to install air valve spring, (20), with open end hook to the left at bottom of housing cavity.
10. When installing idle mixture screws, (55), turn in until lightly seated, then back out 1½ turns.
11. When installing idle air bypass, (43), turn in until lightly seated, then back out 3½ turns.
12. Make sure to install choke thermostat cover, (50), with spring placed in slot of piston & lever assembly, (53).
13. Install dashpot bracket (if applicable) before installing throttle body, (57), to main body, (46).

### 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. Screw, Secondary Throttle Lockout Arm    | 30. Accelerator Pump                                    |
| 2. Arm, Secondary Throttle Lockout          | 31. Retainer, Pump Spring                               |
| 3. Retainer, Choke Linkage (2)              | 32. Spring, Pump                                        |
| 4. Link, Choke                              | 33. Shaft, Pump                                         |
| 5. Seal, Choke Link Dust                    | 34. Cup, Pump Shaft                                     |
| 6. Retainer, Pump Link                      | 35. Power Piston Assembly                               |
| 7. Rod, Accelerator Pump                    | 36. Retainer, Disc Pump Check                           |
| 8. Screw, Hot Idle Compensator (2)          | 37. Valve, Disc Pump Check                              |
| 9. Valve, Hot Idle Compensator              | 38. Needle, Pump Discharge                              |
| 10. Gasket, Hot Idle Compensator            | 39. Valve, Power Enrichment                             |
| 11. Valve, Bowl Vent                        | 40. Jet, Main Metering (2)                              |
| 12. Retainer, Pump Arm Pin                  | 41. Retainer, Pump Intake Ball Check                    |
| 13. Pin, Pump Arm                           | 42. Ball, Pump Intake                                   |
| 14. Arm, Accelerator Pump                   | 43. Screw, Idle Air Bypass (R.P.M.) (T Bird Model Only) |
| 15. Arm, Idle Vent Valve                    | 44. Spring, Bypass Screw (T Bird Model Only)            |
| 16. Washer, Air Valve Rod (Part of 29)      | 45. Screw, Throttle Assy.                               |
| 17. Screw, Air Valve Clamp                  | 46. Main Body                                           |
| 18. Retainer, Adjusting Plate               | 47. Gasket, Main Body to Throttle Body                  |
| 19. Plate, Adjusting                        | 48. Screw, Retainer (3)                                 |
| 20. Spring, Air Valve                       | 49. Retainer, Choke Thermostat Cover                    |
| 21. Screw, Air Horn (Long-1)                | 50. Choke Thermostat Cover                              |
| 22. Screw, Air Horn (Short-10)              | 51. Gasket, Choke Thermostat Cover                      |
| 23. Air Horn Assembly                       | 52. Screw, Choke Piston & Lever Assy.                   |
| 24. Gasket, Air Horn Assembly               | 53. Piston & Lever Assembly, Choke                      |
| 25. Rod, Float Assembly                     | 54. Shaft & Arm Assembly, Choke                         |
| 26. Float Assembly                          | 55. Screw, Idle Mixture (2)                             |
| 27. Needle, Seat & Gasket Assembly (Pri.)   | 56. Spring, Idle Mixture Screw (2)                      |
| 28. Needle & Gasket Assembly (Aux.)         | 57. Throttle Body Assembly                              |
| 29. Damper Piston & Rod Assembly, Air Valve |                                                         |

GF3802-1-P1

# ADJUSTMENT DATA

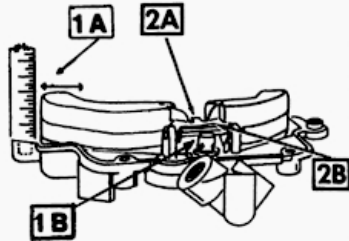
- 1A. IN MAKING THIS ADJUSTMENT, DO NOT EXERT PRESSURE ON NEEDLE VALVE. WITH UPPER BODY INVERTED MEASURE FROM BODY GASKET SURFACE TO THE EDGE OF EACH FLOAT.

- 2A. BEND PRIMARY FLOAT TAB TO ADJUST.

- 1B. HOLD FLOAT IN CLOSED POSITION. MEASURE BETWEEN AUXILIARY FLOAT TAB AND AUXILIARY NEEDLE.

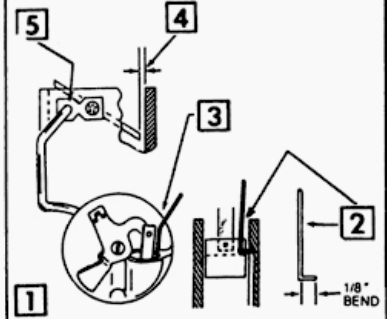
- 2B. BEND AUXILIARY FLOAT TAB TO ADJUST.

**FIG. A  
DRY FLOAT LEVEL ADJUSTMENT  
(PRIMARY NEEDLE AND SEAT)  
& FLOAT LEVEL ADJUSTMENT  
(AUXILIARY NEEDLE AND SEAT)**



1. OPEN THROTTLE VALVES HALFWAY.
2. MAKE PAPER CLIP GAUGE.  $\frac{1}{8}$ " BEND.
3. INSERT BENT END OF GAUGE BETWEEN PISTON SLOT AND UPPER EDGE OF RIGHT HAND SLOT IN CHOKE HOUSING. ROTATE CHOKE LEVER COUNTERCLOCKWISE UNTIL GAUGE IS HELD SNUGLY. HOLD IN PLACE.
4. MEASURE BETWEEN LOWER EDGE OF CHOKE VALVE AND AIR HORN WALL.
5. BEND LEVER TO ADJUST.

**FIG. D  
CHOKE VALVE  
PULLDOWN ADJUSTMENT**



1. INSTALL PUMP PIVOT IN APPROPRIATE HOLE.

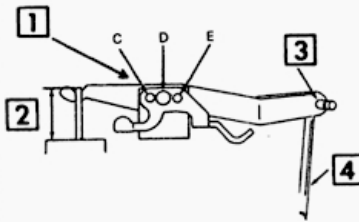
2. MEASURE FROM TOP OF PUMP PLUNGER TO BOWL COVER.

TO ADJUST.

3. 1966: DISCONNECT PUMP ROD AND CHANGE PIN.

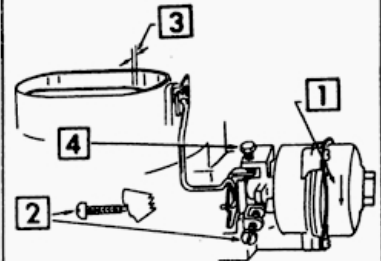
4. 1968: BEND ROD.

**FIG. B  
PUMP ADJUSTMENT**



1. TURN CHOKE COVER 90 DEGREES RICH BEYOND INDEX.
2. SET FAST IDLE SCREW ON SECOND STEP OF FAST IDLE CAM NEXT TO HIGH STEP.
3. MEASURE DISTANCE BETWEEN LOWER EDGE OF CHOKE VALVE AND AIR HORN VALVE.
4. TURN ADJUSTMENT SCREW FOR PROPER SETTING.

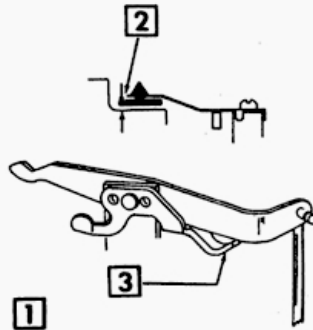
**FIG. E  
FAST IDLE CAM LINKAGE ADJUSTMENT**



1. HOLD THROTTLE VALVES CLOSED.
2. MEASURE BETWEEN LOWER SIDE OF IDLE VENT VALVE AND VALVE SEAT.

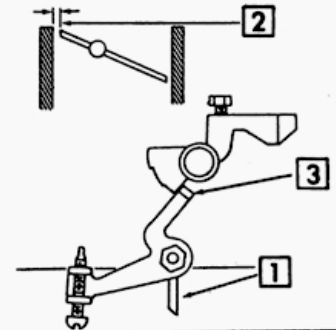
3. BEND VENT VALVE LEVER TO ADJUST.

**FIG. C  
IDLE VENT VALVE ADJUSTMENT**



1. HOLD THROTTLE WIDE OPEN.
2. HOLD CHOKE VALVE TOWARD CLOSED POSITION. MEASURE BETWEEN UPPER EDGE OF CHOKE VALVE AND AIR HORN WALL.
3. BEND TANG TO ADJUST.

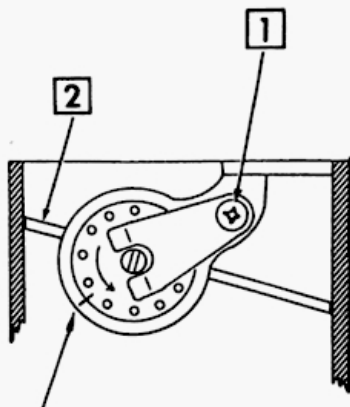
**FIG. F  
CHOKE UNLOADER ADJUSTMENT**



# ADJUSTMENT DATA (Cont'd)

**FIG. G  
SECONDARY AIR VALVE  
ADJUSTMENT  
(1966—1968 MODELS)**

1. LOOSEN CLAMP SCREW. ROTATE HOUSING TO NO-LOAD POSITION.
2. HOLD AIR VALVE IN CLOSED POSITION.
3. SCRIBE REFERENCE MARK. ROTATE SPRING HOUSING COUNTERCLOCKWISE CORRECT NUMBER OF KNOBS.



289" ENG. S/T      5 KNOBS  
 289" ENG. A/T      4 KNOBS  
 390" ENG.          7 KNOBS  
 410—428" ENG.    8 KNOBS

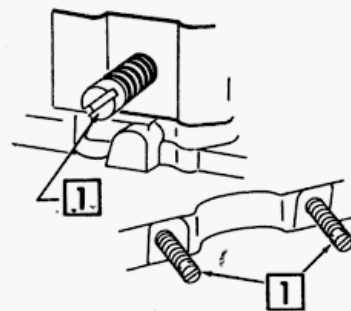
TIGHTEN CLAMP SCREW

\*INITIAL SETTING ONLY. SEE SHOP MANUAL FOR CORRECT IDLE SPEED ADJUSTMENT.

1. ENGINE RUNNING AT OPERATING TEMPERATURE. ADJUST IDLE MIXTURE SCREWS TO A SMOOTH IDLE. ADJUST IDLE R.P.M. WITH IDLE AIR BYPASS SCREW.

NOTE: ALL 1968 MODELS, EXCEPT T'BIRD, HAVE A NEW THROTTLE LEVER STOP SCREW FOR IDLE SPEED ADJUSTMENT. ALL 1969 MODELS HAVE A THROTTLE STOP SCREW.

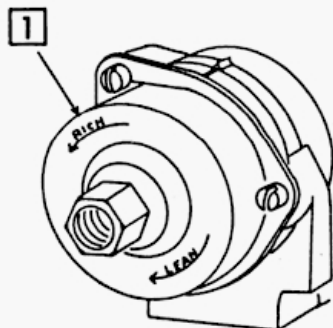
**FIG. I  
SLOW IDLE SPEED ADJUSTMENT**



**FIG. H  
AUTOMATIC CHOKE SETTING**

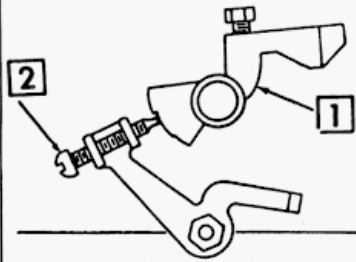
1. ROTATE COVER AGAINST SPRING TENSION TO SPECIFIED POINT ON CHOKE HOUSING.

NOTE: ALLOWABLE VARIATIONS: 2 NOTCHES EITHER WAY FROM INITIAL SETTING.



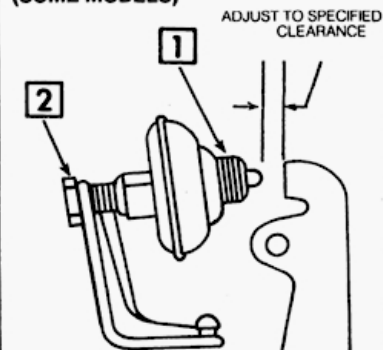
**FIG. J  
FAST IDLE ADJUSTMENT**

1. PLACE FAST IDLE SCREW ON SECOND STEP OF FAST IDLE CAM.
2. ADJUST FAST IDLE SCREW TO PROPER R.P.M.



1. THROTTLE VALVES CLOSED AT CURB IDLE POSITION. DEPRESS DASHPOT PLUNGER FULLY AND CHECK CLEARANCE BETWEEN PLUNGER STEM AND THROTTLE LEVER.
2. TO ADJUST, LOOSEN LOCKNUT AND TURN DASHPOT IN OR OUT OF MOUNTING BRACKET AS REQUIRED.

**FIG. K  
DASHPOT ADJUSTMENT  
(SOME MODELS)**



## SPECIFICATION BY APPLICATION

Year	MODEL	Float Level Fig. A		Choke Pulldown Fig. D	Fast Idle Cam Fig. E	Accel. Pump		Auto Choke Setting Fig. H	Bowl Vent Valve Fig. C	Idle Speed Engine R.P.M.		Dash Pot Fig. K
		Primary Valve	Auxiliary Valve			Pump Setting Fig. B	Plunger Height			Slow Fig. I	Fast Fig. J	
<b>A.M.C. — SPECIFICATION I.D.-A</b>												
1971	360, 401 Eng. —A/T	13/16	—	11/64	3/16	D	—	Index	None	650	1600	1/8
	—M/T	13/16	—	3/16	13/64	D	—	Index	None	700	1600	1/16
1970	360, 390 Eng. —A/T	13/16	—	11/64	3/16	D	—	2 Rich	—	600	1600	1/8
	—M/T	13/16	—	3/16	13/64	D	—	2 Rich	—	650	1600	1/16

### FORD TRUCK —

1974	460 Eng. —F100 Truck	3/4	1/16	7/32	13/64	C	15/32	Index	—	—	—	—
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### LINCOLN —

1974	460 Eng.	3/4	1/16	7/32	13/64	C	15/32	Index	—	—	—	—
1973	460 Eng.	49/64	1/16	7/32	3/16	C	7/16	Index	—	600	1350	1/8
1972	460 Eng.	49/64	1/16	15/64	13/64	C	7/16	Index	—	625/500	1250	—
1971	460 Eng.	25/32	1/16	7/32	11/64	D	7/16	1 Rich	—	600	1250	1/8
1970	460 Eng.	25/32	1/16	7/32	11/64	D	7/16	1 Rich	None	600	1250	7
1969	460 Eng.	25/32	1/16	15/64	5/32	D	7/16	1 Rich	1/16	550	1300	3/32
1968	460 Eng.	25/32	1/16	15/64	5/32	D	5/16	1 Rich	1/16	550	1300	3/32

## SPECIFICATION BY APPLICATION (Cont'd)

Year	MODEL	Float Level Fig. A		Choke Pulldown Fig. D	Fast Idle Cam Fig. E	Accel. Pump		Auto Choke Setting Fig. H	Bowl Vent Valve Fig. C	Idle Speed Engine R.P.M.		Dash Pot Fig. K
		Primary Valve	Auxiliary Valve			Pump Setting Fig. B	Plunger Height			Slow Fig. I	Fast Fig. J	
<b>FORD, MERCURY — SPECIFICATION I.D.-A</b>												
1974	460 Eng. —(Exc. Police, Ranchero) —Police —Ranchero	3/4 3/4 13/16	1/16 1/16 1/16	7/32 15/64 7/32	13/64 13/64 11/64	C C C	15/32 7/16 15/32	Index Index Index	— — —	— — —	— — —	— — —
1973	429 Eng. 460 Eng. —(Exc. Police) —Police —D3AF-EB —D3AF-TA	49/64 49/64 7/8 7/8	1/16 1/16 1/32 1/32	13/64 7/32 13/64 7/32	13/64 13/64 3/16 3/16	C C C C	7/16 7/16 7/16 7/16	Index Index Index Index	— — — —	700 <sup>9</sup> 600 500	1350 1350 1900	1/8 1/8 — —
1972	429 Eng. —(Exc. Police, T Bird) —T Bird 460 Eng.	49/64 49/64 49/64	1/16 — 1/16	7/32 7/32 15/64	13/64 13/64 13/64	C C C	7/16 7/16 —	1 Rich 2 Rich Index	— — —	600/500 600/500 625/500	1350 1350 1250	— — —
1971	351C Eng. —A/T —M/T 429 Eng. 351 Eng. —A/T —w/o A.C. —A.C. —M/T —w/o A.C. —A.C. 429 Eng. —A/T —M/T	13/16 13/16 49/64 53/64 53/64 53/64 1 1 25/32 25/32	1/16 1/16 1/16 1/16 1/16 1/32 1/32 1/32 1/16	13/64 3/16 7/32 13/64 13/64 11/64 5/32 5/32 7/32 1/4	3/16 5/32 13/64 1/8 5/32 1/8 5/32 11/64 7/32	D D D D D E E D D	7/16 7/16 7/16 7/16 7/16 9/16 9/16 31/64 31/64	Index None Index Index Index 2 Rich 2 Rich Index None	None None None None None None None None None	625/500 <sup>11</sup> 825/500 600 <sup>11</sup> 600 600/500 800/500 600 600/500 600 700	1400 1250 1350 1400 1250 1600 1600 1300 1400	— — 1/16 5/64 1/8 1/8 1/8 5/64 5/64
1969	351 Eng. —A/T —M/T 390 Eng. —A/T —M/T 429 Eng. —A/T —M/T	13/16 13/16 13/64 13/64 25/32 25/32	1/16 1/16 1/16 1/16 1/16 1/16	5/32 11/64 1/4 15/64 5/32 7/64	3/32 1/8 7/32 13/64 15/64 7/32	D D E E D D	31/64 31/64 31/64 31/64 7/16 7/16	1 Lean 2 Lean 1 Lean Index 1 Rich Index	None None None None None None	575 675 550 700 575 650	1400 1250 1400 1300 1300 1200	1/8 3/32 1/8 1/8 1/8 3/32
1968	302 Eng. —A/T —M/T 390, 428 Eng. —A/T —M/T 429 Eng.	13/16 13/16 25/32 25/32 25/32	1/16 1/16 1/16 1/16 1/16	9/64 1/8 9/64 1/8 15/64	7/64 3/32 7/64 7/64 5/32	C D E E D	7/16 7/16 7/16 7/16 5/16	Index Index 2 Rich 1 Rich 1 Rich	1/16 1/16 1/16 1/16 1/16	550 625 500 625 550	1400 1250 1400 1300 1500	3/32 1/16 3/32 3/32 6
1967	289 Eng. —A/T —w/o E.E. —E.E. —M.T. —w/o E.E. —E.E. 390 Eng. —Fairlane, Comet —A/T —w/o E.E. 390, 428 Eng. —(Exc. 390 Fairlane, 428 Police) —A/T —w/o E.E. —w/E.E. —(Exc. 428 Police) 390, 428 Eng. —M/T —w/o E.E. —E.E. 428 Eng. —Police —A/T —M/T 1966 390 Eng. —M/T —T.E.	25/32 25/32 25/32 25/32 25/32 25/32 25/32 25/32 25/32 25/32 25/32 25/32	1/16 1/16 1/16 1/16 1/16 1/16 1/16 1/16 1/16 1/16 1/16	3/32 3/32 9/64 5/32 9/64 9/64 13/64 7/32 13/32 13/64 5/32	5/64 5/64 3/32 3/32 7/64 7/64 3/32 3/32 3/32 3/32 1/8	D D D D E E D D D D E	— — — — — — — — — — —	3 Lean 3 Lean Index Index 2 Rich 2 Rich Index Index Index Index	1/16 1/16 1/16 1/16 1/16 1/16 1/16 1/16 1/16 1/16	525 550 600 625 475 475 550 575 625 475 625	1350 1350 1200 1200 1400 1200 <sup>3</sup> 1400 1300 1300 1500 1400	1/8 1/8 1/8 1/8 1/8 1/8 1/8 1/8 1/8 1/8 5/64

### FORD, MERCURY — SPECIFICATION I.D.-C

1974	351 Eng. —A/T —M/T	13/16 13/16	1/32 1/32	3/16 11/64	3/16 11/64	C C	29/64 15/32	Index Index	— —	— —	— —	— —
1973	351 Eng. —A/T —M/T	13/16 13/16	1/32 1/32	3/16 11/64	3/16 11/64	C C	3/8 3/8	Index 1 Rich	— —	800 1000	1300 1300	— —
1972	351 Eng. —A/T —M/T 429 Eng. —Police	13/16 13/16 7/8	1/32 1/32 1/32	13/64 13/64 7/32	13/64 3/16 3/16	C C C	3/8 3/8 3/8	Index Index Index	— — —	700/500 1000/500 650/500	1200 <sup>3</sup> 1200 1900	— — —

### A.M.C. — SPECIFICATION I.D.-D

1974	360, 401 Eng. —(Exc. Police) —Police	13/16 13/16	3/64 3/64	11/64 11/64	5/32 5/32	D D	— —	2 Rich 2 Rich	— —	750 750	1600 <sup>14</sup> 1600 <sup>14</sup>	— —
1973	360, 401 Eng. —(Exc. Police) —A/T —M/T —Police	3/16 3/16 3/16	1/16 1/16 1/16	3/16 3/16 3/16	5/32 5/32 5/32	D D D	— — —	2 Rich 2 Rich 2 Rich	— — —	700 750 700	1600 1600 1600	9/64 — —
1972	360 Eng. —A/T 401 Eng. —A/T 360, 401 Eng. —M/T	13/16 13/16 13/16	— — —	3/16 3/16 3/16	3/16 3/16 3/16	D D D	— — —	1 Rich 1 Rich 1 Rich	None None None	700 650 <sup>19</sup> 750	1600 1600 1600	— 9/64 9/64

### JEEP —

1973	All —M/T —M/T	3/16 3/16	1/16 1/16	3/16 3/16	5/32 5/32	D D	— —	2 Rich 2 Rich	— —	700 750	1600 1600	9/64 —
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### JEEP —

1974	All —(Exc. J20 w/401 Eng.) —J20 w/401 Eng.	13/16 13/16	3/64 3/64	11/64 11/64	5/32 5/32	D —	— —	2 Rich 2 Rich	— —	750 750	1600 <sup>14</sup> 1600 <sup>14</sup>	9/64 —
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#### FOOTNOTES:

1. AG set 3/32".
2. AD set "E".
3. AD set 1400, AF set 1300 R.P.M.
4. AR set 3/4".
5. Specification data not available.
6. 3/32" plunger clearance for A, E, G, H only.
7. 3/32" plunger clearance for J only.  
Also EGR & TCS must be disconnected.
8. Thunderbird set at 600 R.P.M.
9. Torino, Fairlane set at 650 R.P.M.
10. California vehicles 700 R.P.M.
11. A.T. in drive. Headlights ON high beam. Air Cond. OFF.
12. California 800/500 R.P.M.
13. Cougar with 12" converter 10" Ign. timing 650 R.P.M.
14. Engine at operating temperature. Screw on second step of cam.