

## **General Instructions**

- Take lots of pictures as you take your carburetor apart. This will give you a reference of where things go.
- Using a cookie sheet with folded up sides will help keep parts from falling on the floor.
- We suggest not removing the throttle shaft, valves, or choke shaft unless they are corroded, or very dirty. These parts can be easily damaged and are difficult to re-assemble.
- Instruction sheets that come with our carburetor kits are somewhat generic. It may not match your parts exactly.
- Do NOT use WD-40 around your carburetor. It reacts with ethanol.
- Using Silicon Spray Lubricant on the gaskets will help with sticking in case you need to take the carburetor apart again.
- Be careful after taking the top of the carburetor off. Turning the carburetor upside down may cause parts to fall out and you won't know where they were.
- Screws and jets that are frozen can often be removed after heating outside the screw or jet.
- Stuck check balls can be removed by heating the outside of where the check ball resides and tapping the carburetor on the work bench.
- Do not discard any parts until complete done. You may have to refer for size, or matching.

## Cleaning:

- Clean with carburetor dis-assembled.
- Soak all parts except rubber & electrical in Simple Green for 2 hours. Aluminum parts will get discolored if left longer.
- Wash parts with hot water if available to remove all chemicals.
- Blow out each passage way taking special notice of the smaller ones. Test each passage that air goes through the entire passage.
- Blow out the idle mixture hole.

- Check any hole above the idle mixture hole (inside the bore). This is the idle discharge and often becomes plugged.
- A tooth brush can facilitate cleaning parts.
- Soda blasting, then washing again will make the carburetor look good any will clean any minor deposits.
- Any corrosion, or deposits that are hard to remove may indicate the passages are also corroded and the carburetor should be replaced.
- If your engine has been sitting for 6 months or more, the gas has probably turned, and the gas tank will need to be cleaned as well as the fuel lines. Flushing new gas through the tank will not be enough.

### Assembly:

- Do NOT apply any gasket sealant on any of the gaskets. Gas will break sealant part and the particles will clog the small passages.
- Test your float.
  - Brass floats should be immersed into hot water. As the air inside expands any leak will be noticeable with air bubbles.
  - Plastic, or Nitrophyl floats should be weighed. The weight is in grams. Check our technical pages for any weight specification that we may have.
- Most gaskets will fit as expected, but you may have to trim some, especially under the venturis.
- Your kit may include multiple gaskets in order to get better coverage out of the kit. Use the one that fits the best. Look for any opening the gasket may leave allowing air into the carburetor. Some holes may be casting holes that don't lead to anything and do not have to be covered.
- Mounting gaskets for multiple bore carburetors do not have to have matching holes. Example a four-barrel gasket can be open in the middle instead of 4 holes as long as the carburetor has some kind of passage between bores. The passage is between primary, or secondary, not both.
- When adjusting the float be careful not to put any pressure on the needle. The viton tip is easily damaged.
- Most idle mixture screws can be cleaned using a soft wire wheel. Inspect for any scoring, which
  would indicate over tightening. Screw with scoring should be replaced.

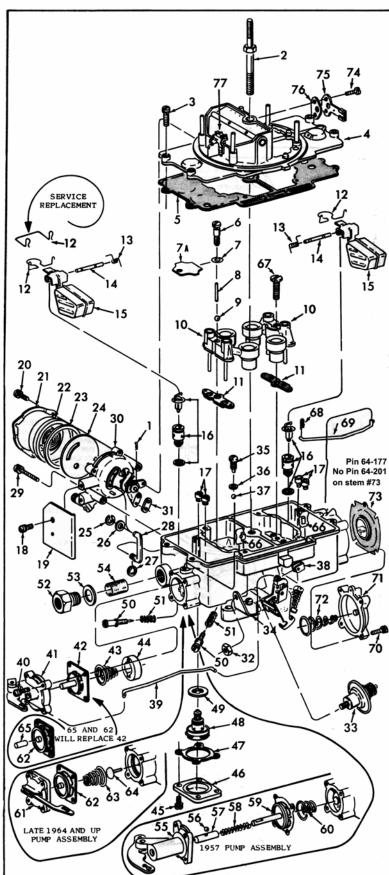
### **Accelerator Pumps:**

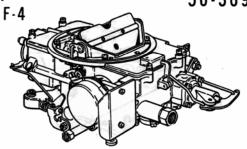
- On leather cups run your finger around the inside of the cup to break any manufacturer sealant.
- Apply 2 drops of oil to cups (leather, or rubber) before inserting into carburetor. Do not soak the
  cup in oil. The swelling of the cup needs to happen inside the carburetor. Allow the 2 drops of oil
  and the gas to do its job naturally.
- Twist the pump as you are inserting to help keep the cup from curling or folding over.
- Test your accelerator pump circuit before putting the top of the carburetor back on. Our technical pages have instructions on how to do this for most carburetor types.
- Pump wells are usually slight tapered, and the pump will not seal until it gets towards the bottom.

# INSTRUCTION SHEET FORD CARBURETOR-MODEL F-4

#### GENERAL EXPLODED VIEW

THE GENERAL DESIGN AND PARTS SHOWN WILL VARY TO INDIVIDUAL UNITS COVERED ON THIS INSTRUCTION SHEET





#### DISASSEMBLY

USE EXPLODED VIEW AS A GUIDE. THE NUMERICAL SEQUENCE MAY GENERALLY BE FOLLOWED TO DISASSEMBLE UNIT FAR ENOUGH TO PERMIT CLEANING AND INSPECTION. NOTE: TO REMOVE SLEEVE (57) FROM STEMOF DIAPHRAGM (59) ON 1957 MODELS,

NOTE: TO REMOVE SLEEVE (57) FROM STEMOF DIAPHRAGM (59) ON 1957 MODELS, APPLY PRESSURE ON END OF SLEEVE TO DROP OUT THE BALL. WHEN REMOVING FLOATS, MARK EACH FLOAT FOR THE BOWL FROM WHICH IT IS REMOVED. PRIMARY BOWL CARRIES THE PUMP CIRCUIT. ON REMOVING MAIN METERING JETS (17), NOTE SIZE AND WHICH BOWL THEY ARE REMOVED FROM. THE MAIN JETS MUST BE INSTALLED IN PAIRS.												
NOMENCLATURE												
REF.	REF.											
1. RETAINER-CHOKE ROD LOWER 2. STUD-AIR CLEANER 3. SCREW-BOWL COVER 4. BOWL COVER ASSY. 5. GASKET-BOWL COVER 6. SCREW-PUMP DISCHARGE NOZZLE 7. GASKET-PUMP DISCHARGE NOZZLE 8. SCREW 7A PLATE (AIR DISTRIBUTION)-PUMP DISCHARGE NOZZLE. LATE 1964 & 1965 PARTIAL PRODUCTION 8. WEIGHT-DISCHARGE CHECK BALL 9. BALL-DISCHARGE CHECK BALL 9. BALL-DISCHARGE CHECK ASSY. 10. VENTURI CLUSTER ASSY. PRI. & SEC. 11. GASKET-VENTURI CLUSTER ASSY. 12. RETAINER-FLOAT PIN 13. SPRING-FLOAT PIN 14. PIN-FLOAT HINGE 15. FLOAT & LEVER ASSY. PRI. & SEC. 16. NEEDLE, SEAT & GASKET ASSY. 17. JETS-MAIN METERING. PRI. & SEC. 18. SCREW & LOCKWASHER-AIR SHIELD 19. AIR-SHIELD 20. SCREW & LOCKWASHER-STAT CLAMP 21. CLAMP-STAT COVER 22. STAT COVER & SPRING ASSY. 23. GASKET-STAT COVER 24. PLATE-CHOKE BAFFLE 25. RETAINER-FAST IDLE ROD UPPER 26. WASHER-FAST IDLE ROD UPPER	39. PUMP ROD 40. SCREW & LOCKWASHER-PUMP COVER 41. PUMP COVER & LEVER ASSY. 42. PUMP DIAPHRAGM ASSY. 43. SPRING-PUMP DIAPHRAGM RETURN 44. CAVITY FILLER-PUMP 45. SCREW & LOCKWASHER-BCONOMIZER 46. COVER-BCONOMIZER VALVE 47. GASKET-BCONOMIZER VALVE COVER 48. VALVE-BCONOMIZER VALVE 50. NEEDLES-IDLE ADJUSTING 51. SPRINGS-IDLE ADJUSTING 51. SPRINGS-IDLE ADJUSTING NEEDLE 52. FITTING-FUEL INLET 53. GASKET-FUEL INLET FITTING 54. SCREEN-FUEL INLET FITTING 55. PUMP COVER & LEVER ASSY1957 56. BALL-PUMP PUSH ROD SLEEVE-1957 57. SLEEVE-PUMP PUSH ROD-1957 58. SPRING-PUMP PUSH ROD-1957 59. PUMP DIAPHRAGM ASSY1957 60. SPRING-PUMP DIAPHRAGM RETURN-1957 61. PUMP COVER & LEVER ASSY. 62. PUMP DIAPHRAGM ASSY. 63. SPRING-PUMP DIAPHRAGM RETURN 64. VALVE-PUMP DIAPHRAGM RETURN 66. EQUALIZER PASSAGE BAFFLE											
27. RETAINER-FAST IDLE ROD LOWER 28. FAST IDLE ROD 29. SCREW & LOCKWASHER-CHOKE HSG. 30. CHOKE HOUSING ASSY. 31. GASKET-CHOKE HOUSING ASSY.	PRI. & SEC. 67. SCREW-SECONDARY CLUSTER 68. RETAINER-SECONDARY THROTTLE ROD 69. ROD-SECONDARY THROTTLE 70. SCREW-SECONDARY DAPHRAGM COVER											
32. LOCKNUT-DASHPOT 33. DASHPOT 34. BRACKET-DASHPOT 35. SCREW-INLET CHECK BALL RETAINER 36. GASKET-INLET CHECK BALL SCREW 37. BALL-PUMP INLET CHECK 38. RETAINER-PUMP ROD	71. COVER-SECONDARY DIAPHRAGM 72. SPRING-SECONDARY DIAPHRAGM 73. SECONDARY DIAPHRAGM 74. SCREW-HOT IDLE COMPENSATOR VALVE 75. VALVE-HOT IDLE COMPENSATOR 76. GASKET-HOT IDLE COMPENSATOR VALVE 77. MAGNET AND BRACKET											

### CLEANING

CLEANING MUST BE DONE WITH CARBURETOR DISASSEMBLED. SOAK PARTS LONG ENOUGH CLEANING MOST BE DONE WITH CARBURETOR DISASSEMBLED. SOAK PARTS LONG ENOUGH TO SOFTEN AND REMOVE ALL FOREIGN MATERIAL USE (1) A CARBURETOR CLEANING SOLVENT, (2) LACQUER THINNER OR (3) DENATURED ALCOHOL. MAKE CERTAIN THE THROTTLE BODY IS FREE OF ALL HARD CARBON DEPOSITS. RINSE OFF IN SUITABLE SOLVENT. BLOW OUT ALL PASSAGES IN CASTING WITH COMPRESSED AIR AND CHECK CAREFULLY TO INSURE THOROUGH CLEANING OF OBSCURE AREAS.
CAUTION: DO NOT SOAK RUBBER, LEATHER OR PLASTIC PARTS IN SOLVENT.

#### REASSEMBLY

REASSEMBLE IN REVERSE ORDER OF DISASSEMBLY. NOTE SPECIAL INSTRUCTIONS AND FOLLOW NUMERICAL OUTLINE IN MAKING ADJUSTMENTS. SEE OTHER SIDE.

#### SPECIAL INSTRUCTIONS

WHEN INSTALLING IDLE MIXTURE ADJUSTING NEEDLES (50), LIGHTLY BOTTOM THEN BACK OUT 1 1/2 TURNS.

ECONOMIZER VALVE (48), USE CARE WHEN TIGHTENING TO PREVENT DISTORTION OF GASKET (49).

VENTURI CLUSTER (10) INSTALLATION. THE PRIMARY CLUSTER CONTAINS THE PUMP DISCHARGE NOZZLES, AND MUST BE INSTALLED ON SIDE WITH THE DIAPHRAGM PUMP

1960 AND LATER MODELS HAVE A WEIGHT (8) ON TOP OF THE DISCHARGE PUMP CHECK BALL (9) LOCATED UNDER PUMP DISCHARGE NOZZLE SCREW (6).

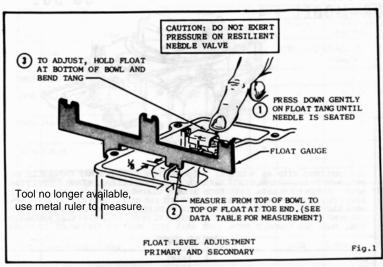
PUMP DIAPHRAGM ASSEMBLY, 1957 MODELS. SLIDE SPRING (58) AND SLEEVE (57) ON THE STEM. ROTATE SLEEVE UNTIL HOLE IS ALIGNED WITH NOTCH IN STEM, THEN DROP BALL INTO HOLE AND GENTLY RELEASE PRESSURE ON SLEEVE.

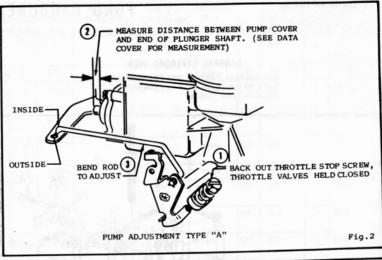
STAT COVER (22) INSTALLATION. BE SURE SPRING LOOP IS HOOKED ONTO TANG OF CHOKE LEVER OR IN SLOT OF LEVER ON SOME MODELS.

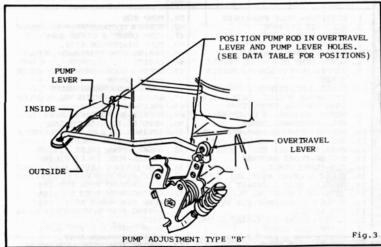
PUMP INLET CHECK VALVE (64) INSTALLATION. LUBRICATE TIP OF NEW VALVE AND INSERT IN CENTER HOLE OF PUMP CAVITY. USE NEEDLE NOSE PLIERS AND PULL THRU FROM FUEL BOWL SIDE UNTIL FULLY SEATED. CUT OFF VALVE TIP AT RETAINING SHOULDER.

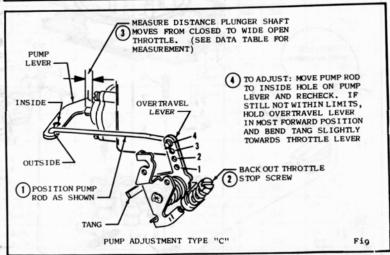
PUMP DIAPHRAGM RETURN SPRING (63) INSTALLATION. INSTALL LARGE OPEN END OF SPRING OVER RUBBER INLET CHECK VALVE. (64) PAGE 1

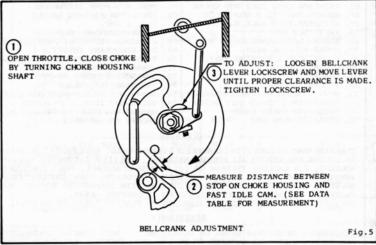
## **ADJUSTMENTS**

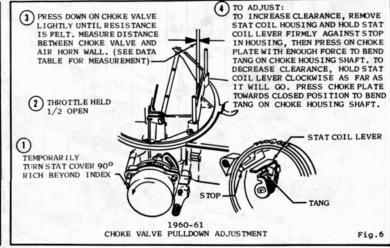


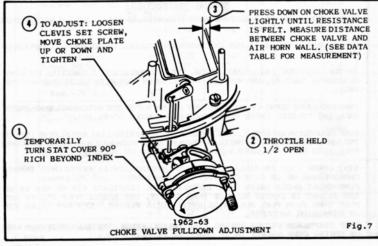


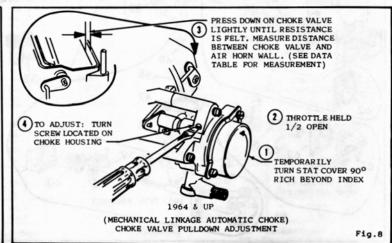


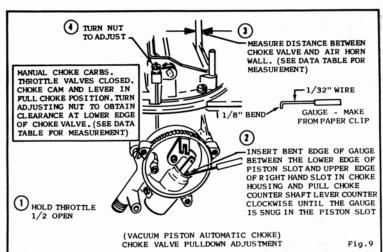


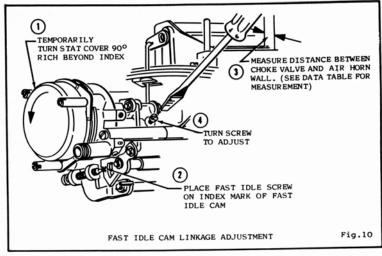


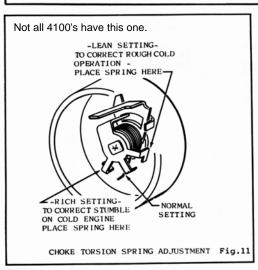


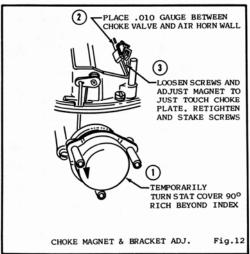


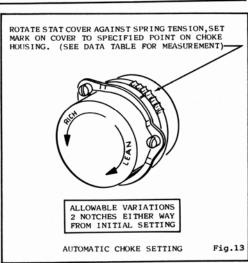


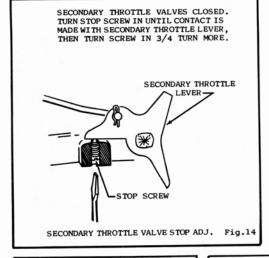


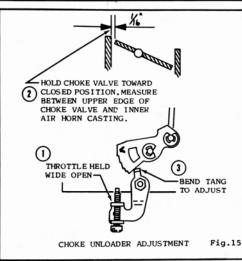


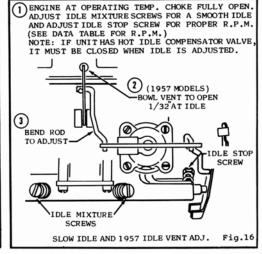


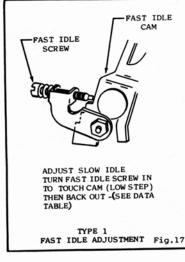


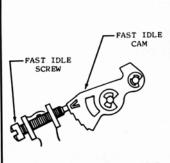






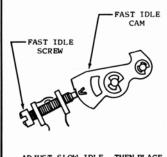






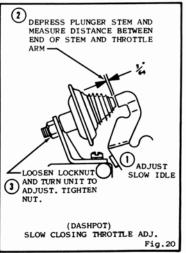
ADJUST SLOW IDLE, THEN PLACE FAST IDLE SCREW ON HIGH STEP OF CAM AND ADJUST TO PROPER R.P.M. (SEE DATA TABLE FOR R.P.M.)

TYPE 2
FAST IDLE ADJUSTMENT Fig.18



ADJUST SLOW IDLE, THEN PLACE FAST IDLE SCREW ON NEXT TO HIGHEST STEP OF CAM AND ADJUST TO PROPER R.P.M. (SEE DATA TABLE FOR R.P.M.)

TYPE 2A FAST IDLE ADJUSTMENT Fig.19



PAGE 3

# **ADJUSTMENT DATA TABLE**

		Float Level		-		mp Adjustment Pump Lever	Overtravel	Bell Overtravel Crank	Automatic Choke Plate	Fast Idle Cam Linkage	Automatic Choke	Slow Idle R.P.M.		Fast Idle R.P.M.	
Year	Make	Pri.	Sec.	Туре	Dimen.	Arm Hole	Lever Hole	Adj.	Pulldown	Adj.			A/T In Dr.		
	Ford	9/16"	9/16"	A	7/32"1-/4"	Outside/S Inside/W	-		-	-	Index	-	500	1	Just Touch
958	Edsel	29/64"	29/64"	В	-	-	No. 3	3/64"	-	-	Index	500	500	1	1/2 Turn
	Ford	29/64"	29/64"	В	-	- <b>-</b>	No. 3 - W No. 2 - S	3/64"	-		Index	500	500	1	1/2 Turn
958	Mercury	29/64"	29/64"	В	-	-	No. 3 - W No. 2 - S	3/64"	-	•	4-Rich	500	500	1	1/2 Turn
1958	T/Bird	29/64"	29/64"	В	-	-	No. 3 - W No. 2 - S	3/64"	-	- <del>-</del>	Index	550	500	1	1/2 Turn
959	Edsel	29/64"	29/64"	В	-	-	No. 4	3/64"	-	-	Index	525	500	2	2000
959	Ford	29/64"	29/64"	В	-	-	No. 3 - W No. 2 - S	3/64"		-	Index	500	500	2	2000
959	Mercury - T-Bird	29/64"	29/64"	В	-	-	No. 4 - W No. 3 - S	3/64"	-		Index	500	500	2	2000
1960	Edsel – Ford – T-Bird	29/64"	29/64"	С	5/32"	Outside	No. 4 - W No. 2 - S	1/32"	5/32"	-	3-Lean	525	500	2	1800
1961	Ford - Mercury - T-Bird	21/32"	21/32"	С	5/32"	Outside	No. 4 - W No. 2 - S	3/64"	5/32"	-	2-Lean-A/T	600	500	2	1500 S/T 1700 A/T
1962	Ford - Mercury - T-Bird	21/32"	21/32"	В	-	Inside	No. 3 - W No. 1-S	3/64"	3/16"	-	2-Lean-A/T	_	500	2A	1200 S/T 1500 A/T
1963	Ford - Mercury	47/64"	47/64"	В	-	Inside	No. 3 - W No. 1 - S	3/64"	3/16"	-	2-Lean-A/T	575	500	2A	1200 S/T 1500 A/T
1963	T-Bird (Early 390" Eng. C2SF-B)	21/32"	21/32"	В	-	Inside	No. 3 - W No. 1 - S	3/64"	5/32"	-	2-Lean	7	500	2A	1500 A/T
1963	T-Bird (Late) 390" Eng. C3SF-A) Galaxie 352" Eng.	47/64"	47/64"	В	-	Inside	No. 3 - W No. 1 - S	3/64"	5/32"	-	2-Lean	2.7	500	2A	1500 A/T
1964	<u>Ford</u> Fairlane – Early 289" Eng. C30F–AJ	21/32"	21/32"	В	-	Inside	No. 4 - W No. 3 - S	-	3/16"	1/16"	3-Lean	800	, S	-	1800
	Late-289" Eng C40F-AL S/T 289" Eng C40F-AT A/T	29/64" 29/64"	29/64" 29/64"	B B	-	Outside Inside	No. 3 No. 2	-	7/32" 7/32"	-	Manual -	700	500		1800 1800
	Galaxie – 352" Eng.	21/32"	21/32"	В	-	Inside	No. 2-S/T No. 3-A/T	-	3/16"-S/T 5/32"-A/T	1/16"	1-Lean S/T 3-LeanA/T		500	2A	1300 S/T 1500 A/
	Galaxie,-T-Bird, 390" Eng.	21/32"	21/32"	В	-	Inside	No. 3 - S No. 4 - W	-	3/16"-S/T 5/32"-A/T	1/16"	1-Rich S/T 1-Lean A/T	600	500	2A	1300 S/T 1500 A/
1964	Mercury Comet 289" Eng. 210 H.P. 289" Eng. 271 H.P.	21/32" 21/32"	21/32" 21/32"	В	-	Inside Inside	No. 3 - S No. 4 - W No. 3 - S	-	5/32" 3/16"	1/16" 1/16"	1-Lean S/T 3-Lean A/T Manual	800	500	2A -	1300 S/T 1500 A/1 1800
	Mercury 390" Eng.	21/32"	21/32"	В	-	Inside	No. 4 - W No. 3 - S No. 4 - W	-	3/16"	1/16"	1-Rich S/T 1-Lean A/T	600	500	2A	1300 S/1 1500 A/
1965	FI			├		-	140. 4 - W		-		1-Leaning 1	_		-	100014
1765	Fairlane, Falcon, Mustang, 289" Eng. Hi. Perf. 289" Eng. Std.	29/64" 29/64"	29/64" 29/64"	B B	:	Inside Inside	No. 3 No. 3	=	1/4" 1/8"	- 1/8" S/T 7/64" A/T	Manual 2-Rich	700 600	500 500	- 2A	1800 1400 S/1 1600 A/
	Galaxie 352" Eng.	29/64"	29/64"	В	-	Inside	No. 3	-	5/32"	1/8"	Index	600	500	2A	1300 S/1 1500 A/
	Galaxie & Gal. Police T-Bird 390" Eng.	29/64"	29/64"	В	-	Inside	No. 3	-	5/32"	1/8"	Index	600	500	2A	1300 S/1 1500 A/
1965	Mercury Comet 289" Eng.	29/64"	29/64"	В	-	Inside	No. 3	-	1/8"	1/8" S/T 7/64" A/T	2-Rich	600	500	2A	1300 S/1 1500 A/
	Mercury 390" Eng.	29/64"	29/64"	В	-	Inside	No. 3	-	5/32"	1/8"	Index	600	500	2A	1300 S/1 1500 A/
1966	Ford Falcon, Fairlane, Std. Mustang – 289" Eng. T/E Hi. Perf.	17/32" 1/2" 1/2"	17/32" 5/8" 5/8 <b>"</b>	B B		Inside Inside Inside	No. 3 No. 3 No. 3	:	1/8" 1/8" 1/4"	1/8" 1/8" -	2-Rich 2-Rich Manual	575 600 750	500 550	2A	1400 S/ 1600 A/
	Ford 352" Eng. Std. T/E	17/32" 1/2"	17/32" 5/8"	B B	-	Inside Inside	No. 3 No. 3	-	9/64" 1/8"	1/8" 1/8"	Index 1-Rich	-	500 550	2A 2A	1500 A/ 1500 A/
	Fairlane, Ford Std. T-Bird, 390" Eng. T/E	17/32" 1/2"	11/16" 5/8"	B B	=	Inside Inside	No. 3 No. 3	-	5/32" S/T 1/8" A/T	1/8" 1/8"	1-Rich 1-Rich	600 625	500 550	2A	1200 S/ 1300 A/
	Ford, (Police Special), S/T T-Bird, 428" Eng. A/T	17/32" 1/2"	11/16" 5/8"	B B	-	Inside Inside	No. 3 No. 3	-	5/32" S/T 1/8" A/T	1/8" 1/8"	1-Rich 1-Rich	600 625	575 550	2A	1300 S/ 1500 A/
1966	Mercury Comet 390" Eng. Std. T/E	17/32" 1/2"	11/16 <b>"</b> 5/8"	B B	-	Inside Inside	No. 3 No. 3	:	5/32" S/T 9/64" A/T	1/8" 1/8"		600 625	500 550	2A	1300 S/1 1500 A/
	Mercury, Police Special Std. 410" and 428" Eng. T/E	17/32" 1/2"	11/16" 5/8"	B B	:	Inside Inside	No. 3 No. 3	-	5/32" S/T 1/8" A/T	1/8" 1/8"	2-Rich S/T 1-Rich A/T	600 625	500 550	2A	1300 S/ 1500 A/
1967	Ford Mustang 289'' Eng. Std. T/E	1/2'' 17/32''	17/32'' 11/16''	B B	:	Inside Inside	No. 3 No. 3	-	1/4" 1/4"		Manual Manual	750 750	650 650	2A 2A	1400 1500
	Police Intercepter 428" Eng. S/T	17/32"	11/16"	В	-	Inside	No. 3	-	5/32''	1/8''	1-Rich	600	l -	2A	1300