

FUEL SYSTEM

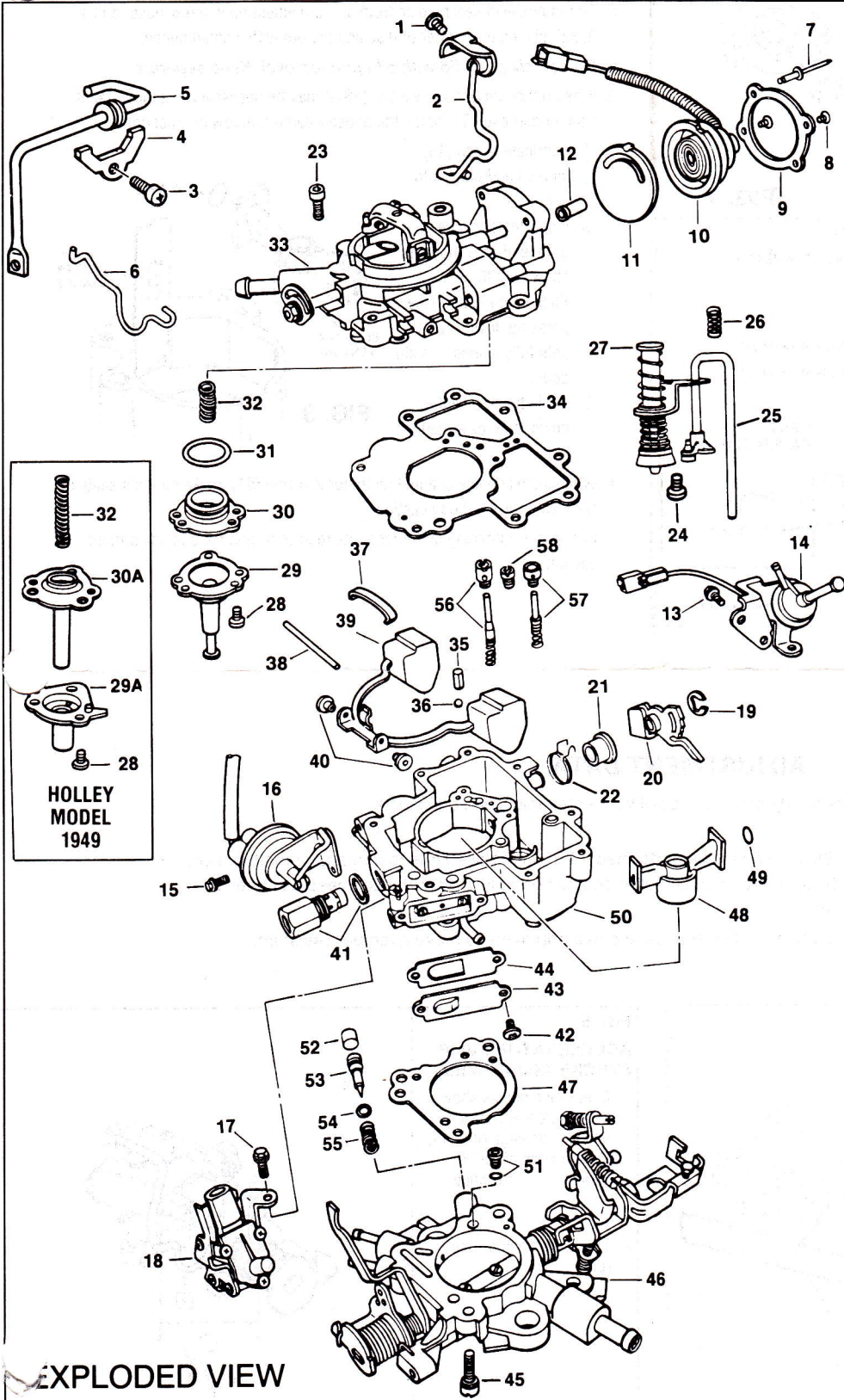
SERVICE INSTRUCTION WORKSHEET

TO REPAIR

GF5324-1

HOLLEY CARBURETOR

1 BARREL—Models 1949, 6149



EXPLODED VIEW

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.

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, choke lever
2. Fast idle link & choke lever assy.
3. Screw, retaining clamp
4. Clamp, rod retainer
5. Operating rod & grommet assy.
6. Operating link
7. Pop rivet, cover retainer (2)
8. Screw, cover retainer (2)
9. Retainer, choke cover
10. Electric choke cover assy.
11. Index plate
12. Bushing, choke coil lever
13. Screw, throttle solenoid (3)
14. Throttle solenoid assy.
15. Screw, choke pull-off (2)
16. Choke pull-off assy.
17. Screw, throttle position sensor (3)
18. Throttle position sensor (TPS) assy.
19. "E" clip, fast idle cam
20. Cam, fast idle
21. Nylon bushing
22. Spring, anti-entrapment
23. Screw, air horn (8)
24. Screw, accelerator pump
25. Aux. main jet/actuating rod & seal puck assy
26. Return spring
27. Accelerator pump assy.
28. Screw, diaphragm & actuator assy. (3)
29. Diaphragm & actuator assy. (6149 model)
- 29A. Cover, diaphragm assy. (1949 model)
30. Diaphragm seat (6149 model)
- 30A. Diaphragm & actuator assy. (1949 model)
31. O-ring, diaphragm seat
32. Return spring
33. Air horn assy.
34. Gasket, air horn
35. Weight, pump discharge ball
36. Ball, pump discharge
37. Retainer, float pin
38. Pin, float hinge
39. Float assy.
40. Bushing, float pin (2)
41. Needle & seat assy & washer
42. Screw, cover (2)
43. Cover, hot idle compensator
44. Gasket, H.I.C. cover
45. Screw, throttle body (3 long, 1 short)
46. Throttle body assy.
47. Gasket, throttle body
48. Venturi, booster
49. O-ring, booster venturi
50. Main body assy.
51. Restrictor & o-ring, idle channel
52. Plug, idle adjusting needle
53. Idle adjusting needle
54. O-ring, adjusting needle
55. Spring, adjusting needle
56. Main enrichment metering valve assy.
57. W.O.T. enrichment pullover valve assy.
58. Main metering jet

REMOVAL & INSTALLATION NOTES

1. For Carb. Model 1949

-Canada ONLY.—When removing diaphragm & actuator assy. (30A), check if spring guide is white or black. If it's white, and replacement in kit is black, use small bushing with black guide. No bushing is required if replacing same color guide. However, do not replace black guide with white guide as it will not function correctly. (See FIG. 1).

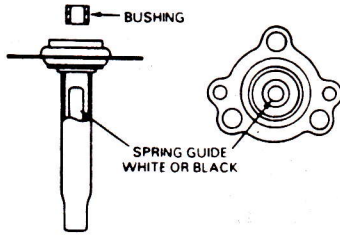


FIG. 1

2. To remove idle channel restrictor & o-ring (51), take a paper clip and shape it as shown in Fig. 2. Insert the hook carefully and pull up gently.

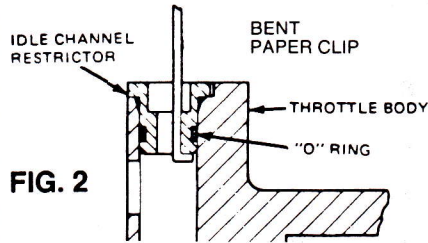
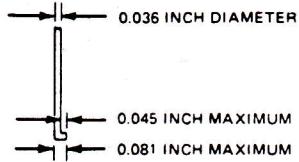


FIG. 2

3. To remove idle adjusting needle plug (52), drill a 3/32" dia. hole at center of plug and extract it with an Easy-Out tool.

4. Before removing adjusting needle (53), turn clockwise until lightly seated. Record number of turns. Bring adjusting needle to original position to maintain proper calibration.

5. Hot idle compensator should remain attached to main body.

6. To remove pop rivets (7), use a 1/8" drill bit to drill off rivet head. Drive remaining rivet out of the hole with a 1/8" punch.
7. To remove plug from choke pulldown, drill a 1/16" dia. hole at center of plug and extract with an Easy-Out tool.
8. To remove lead sealing disc from air horn adjustment screw boss, drill a 3/32" dia. hole at center of disc and pry out with a small punch.
9. *Do not mix parts 56 with 57 upon removal. Keep separate.*
10. When removing booster venturi (48) it may be necessary to slightly tap it from underneath. To install the booster venturi, follow instructions:

- A. Lubricate o-ring (49) with oil and place into venturi.
- B. Insert feeler gauge in groove of main body as shown in FIG. 3.
- C. Slide venturi into place, pressing down evenly until fully seated in main body.
- D. While holding venturi down, pull feeler gauge out.

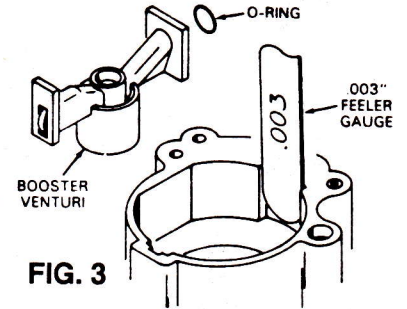


FIG. 3

11. When installing idle channel restrictor & o-ring (51), make sure it's seating flush with throttle body casting.
12. For proper tightening of components refer to torque table in adjustment section.

ADJUSTMENT DATA

1. **For Carb. Model 6149 ONLY.**—There are two methods to adjust the fuel bowl vent - off vehicle and on vehicle. Refer to 1984 shop manual for proper procedure.
2. Throttle position sensor (TPS) adjustment, (Model 6149), should only be performed if TPS is replaced due to damage or malfunction. If adjustment becomes necessary, it must be done with carburetor installed onto engine and only after curb idle speed has been set to specification. Refer to shop manual for proper procedure.
3. The electrical choke cover assy. (10) is retained to the air horn by two screws and two pop rivets to make it tamper-resistant. No adjustment is needed.

FIG. 4

FLOAT LEVEL ADJUSTMENT (Dry)

NOTE: Make sure weight (35), ball (36) & gasket (34), are removed prior to this adjustment.

1. Invert main body while holding float pin retainer in place.
2. Use a straight edge, placed at toe end of dual float, to check that both ends are flush with casting.
3. To adjust, bend float tab.
4. Once adjustment is correct, turn main body right side up and check that float moves freely throughout its range.
5. If float pontoons are misaligned, bend float arms as necessary. Recheck float level.

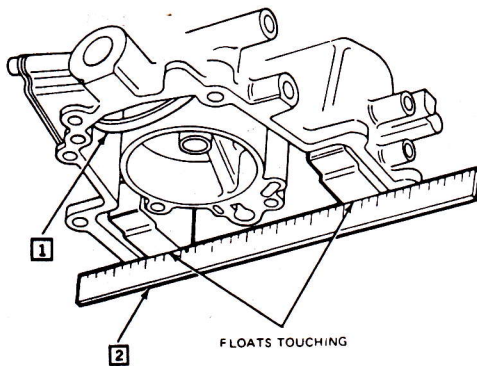
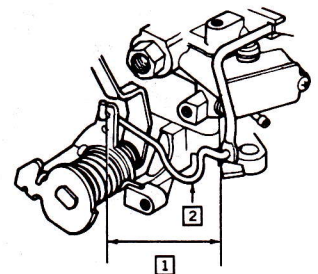


FIG. 5

ACCELERATOR PUMP STROKE ADJUSTMENT

1. Check distance as shown. Make sure you measure from inside edge of radius at both ends of rod. It should be as specified.
2. To adjust, bend or open rod.



ADJUSTMENT DATA (Cont'd)

FIG. 6
CHOKE PULLDOWN
ADJUSTMENT

1. Disconnect hose and active plunger until fully seated by applying an side vacuum source at ± 20 in.-Hg.
2. Apply light closing pressure to choke valve. Do not disturb plunger.
3. Measure specified clearance between upper edge of choke valve and air horn wall using gauge or drill bit.
4. If adjustment is required, refer to "Removal Note 7" for removal of adjustment screw seal. After removal, turn allen screw in or out as required. NOTE: The adjustment has to be done with plunger fully seated.

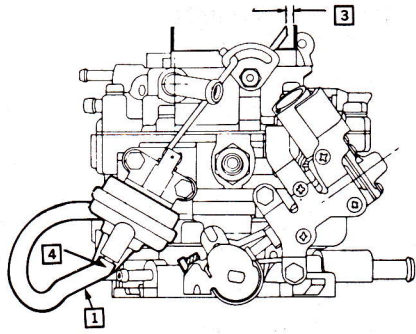


FIG. 7
FAST IDLE CAM INDEX
ADJUSTMENT

1. Set fast idle screw on high step of fast idle cam.
2. Repeat steps 1 & 2, Fig. 6.
3. Open throttle valve and measure the distance between top edge of adjusting screw and shoulder of fast idle cam high step.
4. Close throttle valve and measure the distance between top edge of adjusting screw and shoulder of fast idle cam high step.
5. Fully open throttle valve (remove pressure from choke valve) and return slowly.
6. Adjusting screw should contact lower end of kickdown (2nd) step as shown, by at least 1/2 of its diameter for carburetors with 4 step cams.
7. Adjusting screw should contact 3rd step as shown, by at least 1/2 of its diameter (without contacting 2nd or 4th steps) for carburetors with 5 step cams.
8. If steps 4, 6 or 7 are correct, fast idle cam index is within specifications. To adjust, bend linkage as necessary.

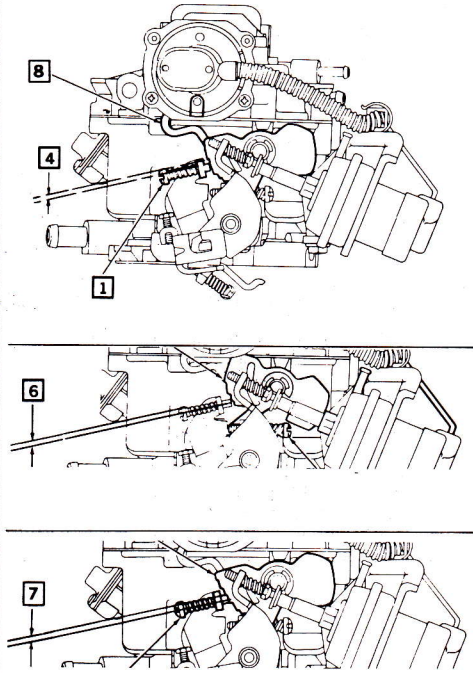


FIG. 8
CHOKE UNLOADER
ADJUSTMENT (De-choke)

NOTE: Make sure choke bimetal spring is cold and seats the choke valve in closed position.

1. Hold throttle valve in wide open position.
2. Measure distance between upper edge of choke valve and air horn wall using gauge or drill bit.
3. To adjust, bend linkage as necessary.

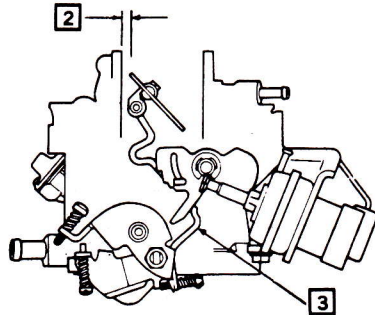


FIG. 10
MAIN SYSTEM FEEDBACK
DIAPHRAGM ADJUSTMENT

1. Remove lead sealing disc. See "Removal Note 8".
2. Turn adjusting screw in or out as required to maintain the specified distance.

NOTE: For carburetors with the letter "S" stamped on top of airhorn adjustment screw boss, see footnote 2.

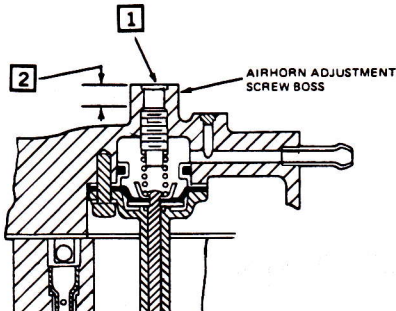


FIG. 9
AUXILIARY MAIN JET/
PULLOVER VALVE
ADJUSTMENT

NOTE: Adjusting screw has a special head.

1. Measure length of adjusting screw which projects through the throttle pick-up lever.
2. To adjust, turn screw in or out as required.

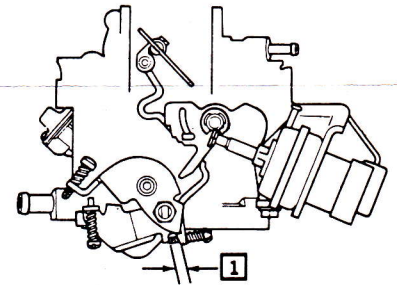


FIG. 12
FAST IDLE RPM SPEED
ADJUSTMENT

1. With transmission in "neutral" or "park", bring engine to normal operating temperature with idle adjusting screw on 2nd step of cam.
2. Return throttle to normal idle speed, and place A/C in "OFF" position.
3. Disconnect vacuum hose at EGR valve and plug hose.
4. Place adjusting screw on specified step, and adjust RPM to specifications. (See engine decal for correct step and RPM).
5. To check the adjustment, rev engine momentarily and allow to idle. Reconnect hose to EGR valve.

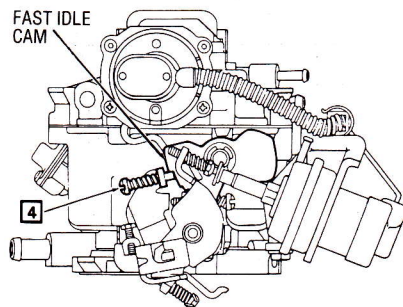
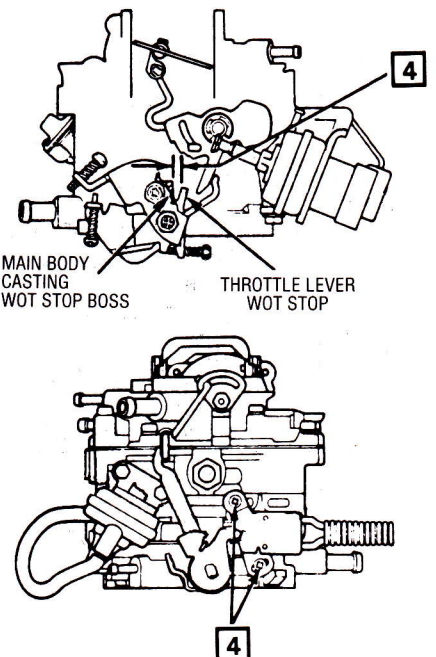


FIG. 11
WIDE OPEN THROTTLE
(WOT) A/C CUT-OFF
SWITCH ADJUSTMENT

NOTE: Adjustment for carb. model 1949 only.

1. Disconnect electrical connector at switch and connect a test light.
2. Light should be "ON" at any throttle valve position except for wide open position, where it should be "OFF".
3. Replace switch assy. if light is not "ON" at said positions. Adjust switch if light remains "ON" at wide open position.
4. To adjust, insert gauge or drill bit as shown. Loosen switch mounting screws and, while holding throttle valve wide open, rotate switch until light just goes out. Tighten screws as specified in torque table.



ADJUSTMENT DATA (Cont'd)

FIG. 13
CURB IDLE RPM SPEED ADJUSTMENT

- NOTE: "A/C-On" RPM is non-adjustable. "TSP-Off" RPM is not required. Make sure that TSP plunger extends with ignition in "ON" position.
1. With transmission in "neutral" or "park", bring engine to normal operating temperature.
 2. Disconnect throttle kicker vacuum line and plug hose. Place A/C in "OFF" position.
 3. Place transmission in specified position (see engine decal). Activate radiator fan with a jumper wire. (Connect wire from fan to ground).
 4. Check curb idle RPM (see engine decal). To adjust, turn adjusting screw as required.
 5. To check the adjustment, rev engine momentarily (trans. in neutral or park), shift transmission back to specified position and recheck RPM.
 6. Turn ignition to "OFF" position, reconnect radiator fan wiring and throttle kicker vacuum hose.

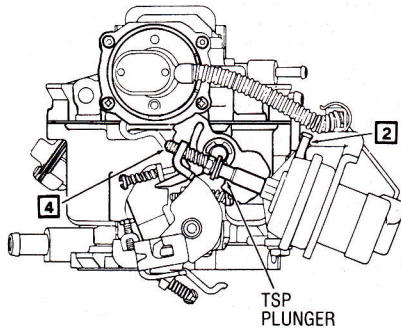
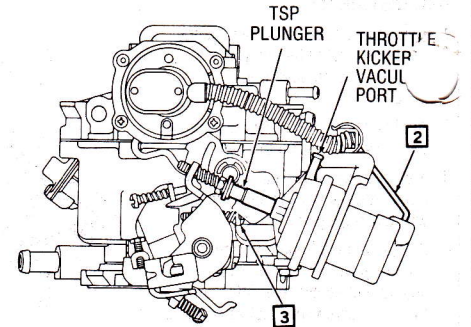


FIG. 14
"TSP OFF" RPM SPEED ADJUSTMENT

- NOTE: This adjustment should only be performed if engine continues to run after ignition is turned to OFF position.
1. Repeat steps 1 & 2, Fig. 13.
 2. Disconnect electrical wire to TSP and check that plunger collapses. Engine RPM should be as specified (600 RPM). Adjust if necessary.
 3. Adjust "TSP-Off" RPM to specifications by turning adjusting screw.
 4. With ignition in OFF position, reconnect TSP electrical wire and throttle kicker vacuum hose.



TORQUE TABLE

Ref. No.	ITEM	Torque (in.lb.)
1	Screw, Choke Lever	10
3	Screw, Retaining Clamp	20
8	Screw, Cover Retainer	10
13	Screw, Throttle Solenoid	45
15	Screw, Choke Pull-Off	45
17	Screw, TPS	45
23	Screw, Air Horn	45
24	Screw, Accelerator Pump	20
28	Screw, Diaphragm & Actuator	8*
41	Needle & Seat Assembly	150
42	Screw, Cover	20
45	Screw, Throttle Body	95**
56	Main Enrichment Valve	20
57	WOT Valve	20
58	Main Jet	15

* Model 6149, tighten 4 to 5 in.lb.

**One short screw, tighten 45 in.lb.

ADJUSTMENT SPECIFICATIONS

Year	MODEL	Float Level (Dry)	Accel. Pump Stroke	Choke Pull-down	Fast Idle Cam Index	Choke Un-loader	Aux./Main Jet Pullover	Feedback Diaphragm ²	W.O.T. A/C Cut-Off
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FORD, MERCURY

1987-84	140 Eng. -Canada	1	2-5/32	7/64	1/32	13/64	11/32	3/16	11/64
	Carb. Nos. E43E-ADA, AEA								
	Carb. Nos. E43E-ABA, ABB, ACA, ACB								
	Carb. Nos. E73E-AB, BB	1	2-5/32	11/64	1/32	13/64	11/32	3/16	11/64
1984	140 Eng. U.S. -A/T	1	2-5/32	5/32	1/32	13/64	5/16	3/16	—
	Carb. No. E43E-ZA, ZG, ZH								
	M/T -Carb. No. E43E-VA								
	-Carb. No. E43E-VB								

FOOTNOTES:

- 1 Refer to text Fig. 4.
- 2 For carburetors with the letter "S" stamped on top of air horn adjustment screw boss, set 1/4".

ABBREVIATIONS:

- A/T Automatic Transmission
Can. Canada
M/T Manual Transmission