



## CARBURETOR RECONDITIONING

Successful reconditioning of small assemblies such as carburetors and fuel pumps requires the observance of certain principles. These principles are briefly outlined as follows:

- 1 The reconditioning must be done by a mechanic who is well trained and whose work can be fully relied upon.
- 2 A sufficient quantity of assemblies must be handled at one time to make the work a production job so time required per unit will be minimized.
- 3 Each lot of assemblies that are worked on must all be of like size and type to avoid chance of mixing parts.
- 4 Convenient storage spaces must be provided for all of the detail parts so, as the parts are inspected and reconditioned, they can be put right where they will be within reach for the reassembly operations.
- 5 The shop work space should be conveniently arranged to eliminate all avoidable steps or motions. For example, the hand tools should be kept in a cabinet or on a rack within reach of the mechanic so each tool may be picked up by merely reaching for it as needed and may be put right back in its place as soon as the operation for which it is used is finished.
- 6 After disassembly the parts must be thoroughly cleaned prior to inspecting to determine which can be used again and which must be discarded.

7 A certain sequence of operations should be worked out and followed for disassembly, cleaning of parts, inspection, reconditioning of parts, reassembly and final test and inspection. Repeated performance of all operations in an efficient sequence will permit reducing the time required to a minimum and will be of material assistance in producing a finished product of uniform high quality.

8 Absolute cleanliness must be assured at all times. After disassembly of any carburetors, it is particularly important to clean the work bench and tools, as well as to thoroughly clean the hands before starting the inspection and reconditioning of the cleaned parts. Care must be used in blowing out parts with compressed air to be sure chips and dirt are not blown into parts that have already been cleaned.

A suggested sequence of operations for the reconditioning of carburetors is outlined here. In describing the operations, the part numbers are shown for the 91A-9510-A Ford carburetor and the 67-9510-A Stromberg carburetor. For other models of these carburetors, the proper part numbers for the respective parts can be obtained from the Ford and Mercury or Lincoln Chassis Parts and Price Lists.

File under "Fuel System" (Note Subject and Page Number)

### EQUIPMENT USED

- 9350-A--FUEL PUMP AND CARBURETOR TESTER
- 9350-D - FUEL PUMP AND CARBURETOR RECONDITIONING TOOLS
- 9510-D -CARBURETOR FLOAT LEVEL GAUGE (FORD)

### ABOVE APPLIES TO MODELS:

- ALL FORD V-8 SINCE 1934
- ALL LINCOLN-ZEPHYR, 1936 to 1940
- ALL LINCOLN, 1941



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## FORD CARBURETOR (91A-9510A)

The Ford carburetors cannot be placed on a flat surface due to throttle arm extending below the lower surface of carburetor mounting flange. Therefore a channel iron should be arranged as shown in Fig. 1. This can usually be made locally from 3" channel iron with pins arranged as indicated in Fig. 1 to hold the carburetors.

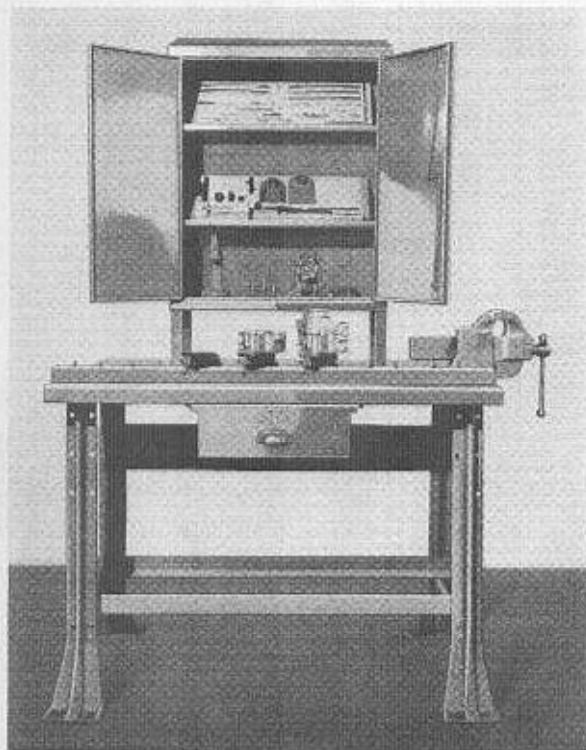


Fig. 1

### Disassembly—Ford Carburetor (91A-9510A)

All parts are disassembled except the choke plate and shaft which are not removed from the air horn; also throttle plates and shaft are not

removed from the throttle body. These parts should not be disassembled as a used choke plate will usually not fit properly in an air horn assembly from another carburetor. The same applies to the throttle plates and used throttle body assemblies.

A sequence of disassembly operations that has been found desirable is as follows:



Fig. 2



Fig. 3

**1** Remove the choke lever screw as shown in Fig. 2. This results in removal of

- (1) 31588-S7 Screw
- (1) 34703-S7 Washer
- (1) 78-9548 Lever—Carburetor choke
- (1) 78-9537 Pawl—Choke lever
- (1) 78-9587 Spring—Choke lever pawl

**2** Remove the throttle kicker screw as shown in Fig. 3. This results in removal of

- (1) 31588-S7 Screw
- (1) 34703-S7 Washer
- (1) 78-9597 Throttle kicker
- (1) 78-9599 Spring—Throttle kicker

#### ABOVE APPLIES TO MODELS:

ALL FORD V-8 SINCE 1934  
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ALL LINCOLN, 1941

#### EQUIPMENT USED

9350-A—FUEL PUMP AND CARBURETOR TESTER  
9350-D—FUEL PUMP AND CARBURETOR RECONDITIONING TOOLS  
9510-D—CARBURETOR FLOAT LEVEL GAUGE (FORD)

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## Carburetor Reconditioning (Cont.)

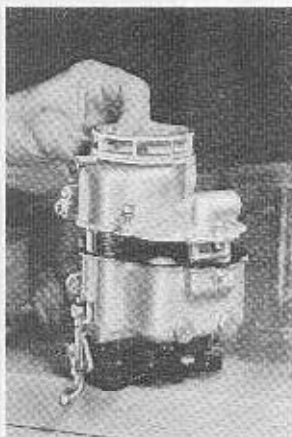


Fig. 4



Fig. 5

**3** Unscrew all five air horn screws (31620-S7) and lift air horn off as shown in Fig. 4. Place air horn on bench in inverted position to avoid bending float.

**4** Remove accelerating pump link (91A-9526). Use care so link will not be bent by prying on upper end of link only as shown in Fig. 5.



Fig. 6



Fig. 7

**5** Remove accelerator pump (78-9630) as shown in Fig. 6.

**6** Remove drain plugs (78-9562) and drain plug gaskets (78-9563). Use wrench #9510-A as shown in Fig. 7.

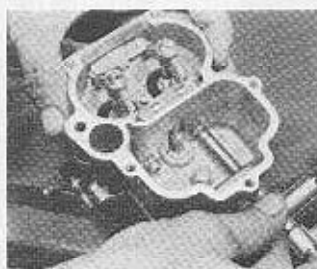


Fig. 8



Fig. 9

**7** Remove main jets (78-9533). Use wrench 9510-A as shown in Fig. 8.

**8** Remove front nozzle bar screws (31109-S7) and clamp (78-9928) as shown in Fig. 9.

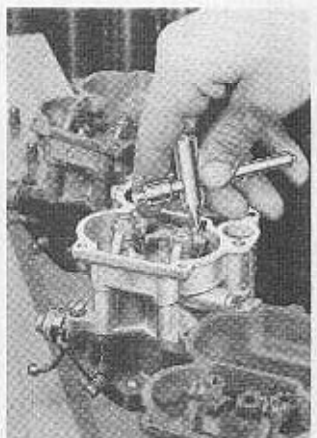


Fig. 10



Fig. 11

**9** With the rear clamp still intact, remove from nozzle bar the idle tubes (78-9542) as shown in Fig. 10 and the brass air bleeds (78-9924) as shown in Fig. 11.

### EQUIPMENT USED

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- 9510-D—CARBURETOR FLOAT LEVEL GAUGE (FORD)

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Fig. 12



Fig. 13

**10** Now remove the rear nozzle bar clamp (78-9928) and screws (31077-S2) as shown in Fig. 12.

**11** Remove following parts as shown in Fig. 13.

- (1) 78-9922 Nozzle bar—RH
- (1) 78-9923 Nozzle bar—LH
- (1) 78-9577 Discharge nozzle—Accelerating pump
- (1) 78-9580 Gasket—Pump discharge nozzle
- (4) 78-9926 Gasket—Nozzle bar

**12** Remove the check valve retainer (78-9575) as shown in Fig. 14. A tool for this operation can be made by grinding the end of a small diameter rod down to a point and hooking the end as shown in Fig. 14.

**13** Remove the following parts as shown in Fig. 15:

- (2) 31079-S7 Screws—Main body to throttle body
- (2) 34804-S2 Lock Washers—Main body to throttle body



Fig. 14

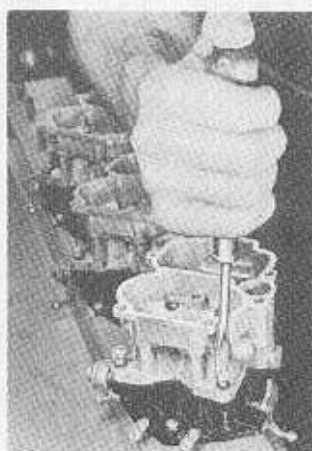


Fig. 15

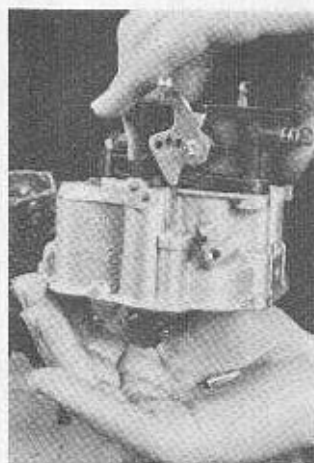


Fig. 16

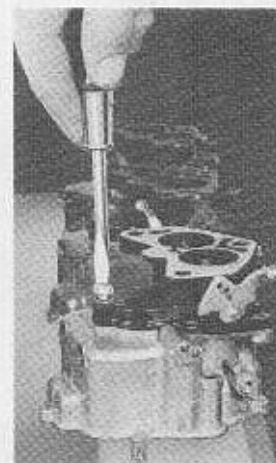


Fig. 17

**14** Remove carburetor from rack and turn over, as shown in Fig. 16, catching the brass needle (78-9594) and the steel ball check valve (78-9576).

**15** Place carburetor on rack as shown in Fig. 17 and remove the following:

- (1) 31646 S7 Screw—Throttle body to main body
- (1) 34805-S2 Lock Washer—Throttle body to main body

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ALL LINCOLN, 1941

### EQUIPMENT USED

9350-A—FUEL PUMP AND CARBURETOR TESTER  
9350-D—FUEL PUMP AND CARBURETOR RECONDITIONING TOOLS  
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## Carburetor Reconditioning (Cont.)



Fig. 18

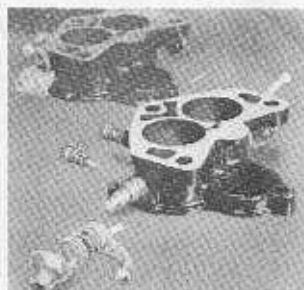


Fig. 19

**16** Remove the following parts as shown in Fig. 18, using wrench #9904-A:

- (1) 78-9904 Power by-pass valve (economizer valve).
- (1) 78-9909 Gasket—Power by-pass

**17** Disassemble following parts from throttle body assembly 78-9514 as shown in Fig. 19:

- (1) 78-9614 Loose lever collar
- (1) 78-9615 Loose lever
- (1) 78-9624 Loose lever spring
- (2) 78-9541 Idle adjusting needles
- (2) 78-9578 Springs—Idle adjusting needles



Fig. 20

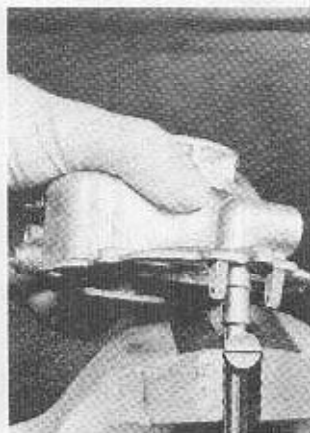


Fig. 21

**18** Remove following parts from air horn assembly (78-9520) as shown in Fig. 20:

- (1) 78-9558 Float hinge pin
- (1) 78-9550 Float assembly
- (1) 78-9564 Fuel inlet needle and seat
- (1) 78-9569 Gasket—Fuel valve seat

Use wrench #9510-A to remove fuel valve needle and seat (78-9564) as shown in Fig. 21.

Fuel inlet needle and seat (78-9564) must be kept in sets as removed from carburetor as one needle will not always work properly in another seat. Rinse off parts in sets in cleaning solution and wipe off with a clean cloth.

Inspect needle and discard the needle and seat assembly if there is any indication of wear on the seating portion of needle. If suitable for further use, polish end of needle that contacts float, using #320 "wet or dry" paper.

**19** Clean all parts, being particularly sure that all corrosion is removed from the float bowl of carburetor. Thorough cleaning of parts is a first essential of producing a good reconditioned carburetor, both from the standpoint of appearance of the finished job as well as to insure good performance. The procedure outlined on page 61, Subject 9350 will do a high quality cleaning job.

### EQUIPMENT USED

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## Inspection and Reconditioning of Parts — Ford Carburetor

(91A-9510A)

### Air Horn (Upper Body) and Choke Plate Assembly

- 20** Make a visual inspection of tightness of fit of choke plate when closed, by holding toward a light and observing amount of light that can be seen around edge of choke plate.
- 21** Check poppet valve stem in choke plate. If loose or if poppet valve spring is weak or broken so that poppet valve will not stay in position firmly, replace choke plate assembly (78-7549).
- 22** Make a visual inspection for signs of rough handling and mutilation and discard parts if damaged.

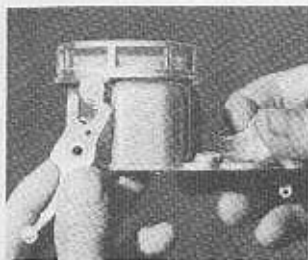


Fig. 22



Fig. 23

- 23** Gauge choke lever boss on air horn (78-9521) using a new choke lever (78-9548) as shown in Fig. 22. Discard air horn if worn too much at this boss.
- 24** Make visual inspection of choke lever (78-9548) for wear on ball end and also for wear in the "V" opening which operates the lever on choke plate shaft.

**25** If there is no vent in air horn between float chamber and accelerating pump rod head clearance chamber as shown in Fig. 23, a vent slot must be cut with a small file or hack saw blade.

**26** Clean out hole for choke lever pawl (78-9537), using reamer #9537-A.

**27** Inspect float (78-9550) to be sure solder holding lever to float is in good condition. Inspect float for leaks by holding float under surface of water that has been heated to just below the boiling point. Bubbles will appear if float leaks. A badly leaking float can frequently be detected by shaking vigorously to see if it is loaded with liquid. Discard float if it leaks.

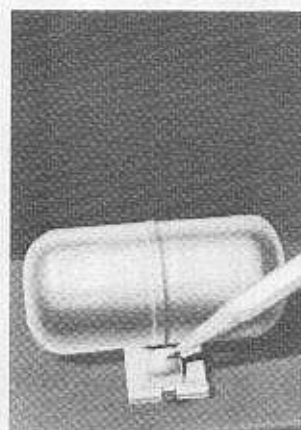


Fig. 24

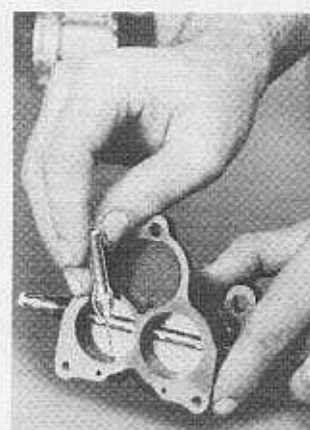


Fig. 25

**28** Polish fuel needle contact surface of float arm indicated in Fig. 24, using #320 "wet or dry" paper.

### Throttle Body

**29** Make visual inspection of tightness of fit of throttle plates when closed, by holding towards a light and observing amount of light

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#### EQUIPMENT USED

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9350-D — FUEL PUMP AND CARBURETOR RECONDITIONING TOOLS  
9510-D — CARBURETOR FLOAT LEVEL GAUGE (FORD)



## Carburetor Reconditioning (Cont.)

that can be seen around edges of throttle plates. A very snug fit is necessary for proper idling and low speed operation. The complete assembly should be discarded if wear and looseness is encountered around edges of throttle plates; if throttle shaft is worn loose so air will leak into throat, if throttle lever is loose on shaft, or if link (91A-9526) is loose in holes in throttle lever.

**30** Clean out idle feed holes in throat above throttle plates as indicated in Fig. 25.

Use hand chuck #9518-E with #9518-H drill (0.037") for lower hole (hole closest to throttle plate).

Use hand chuck #9518-E with #9518-G drill (0.0395") for upper hole (hole farthest from throttle plate).

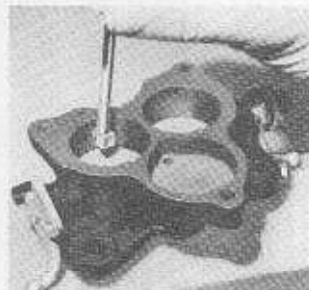


Fig. 26

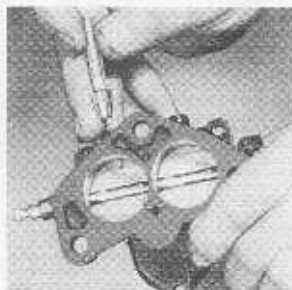


Fig. 27

**31** Hold throttle closed and gauge distance from throttle plates to the idle feed holes nearest plate. Use #9518-A gauge as shown in Fig. 26. Discard throttle body and plate assembly if distance is not within gauge limits as poor idling and low speed operation will likely be encountered otherwise.

**32** Place dummy idle adjustment screws (78-9541) in throttle body and repaint outside of throttle body with black lacquer, being careful not to get paint inside throat, in idle fuel passages or on gasket surfaces. After paint dries, remove the screws (78-9541).

**33** Clean out the idle adjustment screw holes into throat using hand chuck #9518-E and #9518-F drill (0.046") as shown in Fig. 27.

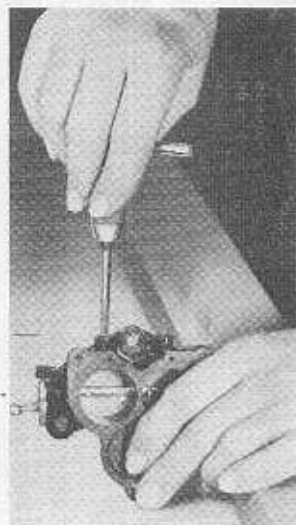


Fig. 28



Fig. 29

**34** Clean out idle adjustment screw threads in throttle body, using tap #9541-A, as shown in Fig. 28. Care must be used not to remove any metal as the screws 78-9541 must fit tightly enough to prevent an air leak which would prevent obtaining the proper idling mixture adjustment.

**35** Reface the idle adjusting needle seat using #9541-C refacer and #9541-D guide bushing as shown in Fig. 29.

### EQUIPMENT USED

- 9350-A—FUEL PUMP AND CARBURETOR TESTER
- 9350-D—FUEL PUMP AND CARBURETOR RECONDITIONING TOOLS
- 9510-D—CARBURETOR FLOAT LEVEL GAUGE (FORD)

### ABOVE APPLIES TO MODELS:

- ALL FORD V-8 SINCE 1934
- ALL LINCOLN-ZEPHYR, 1936 to 1940
- ALL LINCOLN, 1941

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## Main Body

**36** The brass retainer (351336-S8) and felt (78-9535) at bottom of opening for accelerating pump rod (78-9531-A) must be removed when main body assembly is cleaned, due to the action of the cleaning solutions on the felt.

**37** Make a visual inspection for signs of rough handling or mutilation and discard parts if damaged.

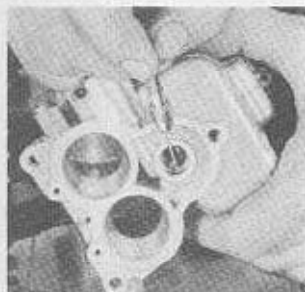


Fig. 30

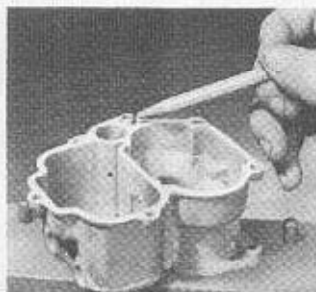


Fig. 31

**38** The two holes leading from power by-pass valve into each throat of carburetor should be cleaned, using hand chuck #9518-E and #9513-A drill (0.039") as shown in Fig. 30. Use a smaller drill for the 922A-9510-A carburetor which has a 0.033" hole here. Some "91A" carburetors for high altitude have a 0.038" hole here so the 0.037" drill #9518-H should be used. Be sure seat for power by-pass valve is not nicked so by-pass valve will seat solidly.

**39** If main body has a raised shoulder around hole for accelerating pump rod, as shown in Fig. 31, remove shoulder with a file. This shoulder if not removed will shorten effective stroke of accelerating pump.

**40** Clean out groove for brass retainer (351336-S8) and hole for accelerating pump operating shaft, using #9513-B reamer as shown in Fig. 32.



Fig. 32



Fig. 33

**41** Inspect idle mixture jet tube (78-9542) and discard if plugged, bent or damaged in any way or if screwdriver slot is mutilated. Wire should not be used to clean out any jets or passages.

**42** Make visual inspection of pump link (91A-9526) and scrap if ends are loose or if link is bent.

**43** Check hole in lower end of pump rod (78-9531-A) using new link (91A-9526) as a gauge to be sure retainer ball and spring are OK.

**44** Straighten nozzle bar clamps (78-9928).

## Reassembly—Ford Carburetor (91A-9510-A)

**45** All new gaskets must be used when re-assembling. The following parts also should be renewed 100%:

- (1) 78-9535 Felt—Accelerator pump rod
- (1) 351336-S8 Brass retainer—Accelerator pump rod
- (1) 78-9575 Retainer—Check valve
- (1) 78-9631 Piston—Accelerating pump
- (1) 78-9904 Power by-pass valve (Economizer valve)

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ALL LINCOLN, 1941

### EQUIPMENT USED

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9350-D—FUEL PUMP AND CARBURETOR RECONDITIONING TOOLS  
9510-D—CARBURETOR FLOAT LEVEL GAUGE (FORD)

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## Carburetor Reconditioning (Cont.)

- 46** Assemble following parts to throttle body:
- (2) 78-9541 Idle adjustment needles
  - (2) 78-9578 Springs—Idle adjustment needles
  - (1) 78-9614 Collar—Loose throttle lever
  - (1) 78-9615 Loose throttle lever
  - (1) 78-9624 Spring—Loose throttle lever.

**47** Idle adjustment screws should be run in just barely snug, then backed out  $\frac{5}{8}$  to  $\frac{3}{4}$  turn.

**48** Be sure throttle plate screws are well staked. Use #9518-C anvil and #9518-D punch as shown in Fig. 33.

**49** Assemble following parts to air horn, being careful that the fuel inlet needle and seat are kept in sets. Also be sure the stop on float will permit it to drop to bottom of float chamber.

- (1) 78-9564 Fuel inlet needle and seat
- (1) 78-9550 Float assembly
- (1) 78-9558 Float hinge pin

**50** Be sure the choke plate screws are well staked. Use #9518-C anvil and #9518-D punch.

**51** Check float position using #9550-A Go-No Go gauge. "Go" end of gauge must clear float at arrow as shown in Fig. 34. "No-Go" end of gauge must rest on float and clear air horn at arrow as shown in Fig. 35. Be sure to **make both checks** as shown in Figs. 34 and 35 **on each end of the float.** For Lincoln-Zephyr, 1936 to 1940 and all 1941 Lincolns, use a  $\frac{1}{16}$ " thick feeler between float and the "Go" or "No Go" ends of the #9550-A gauge.

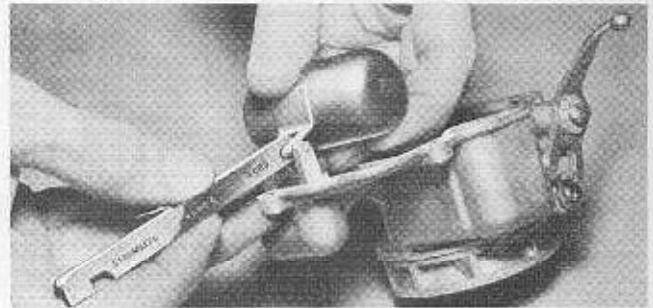


Fig. 36

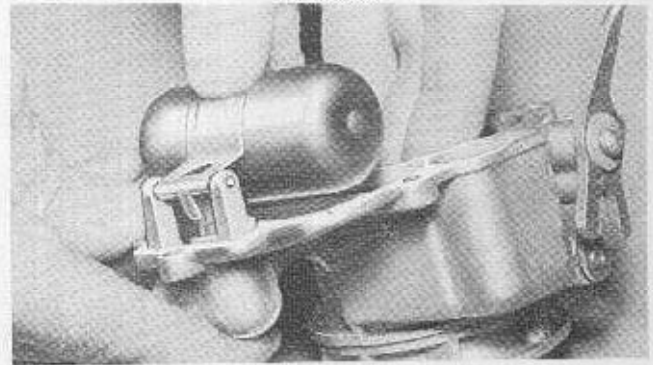


Fig. 37

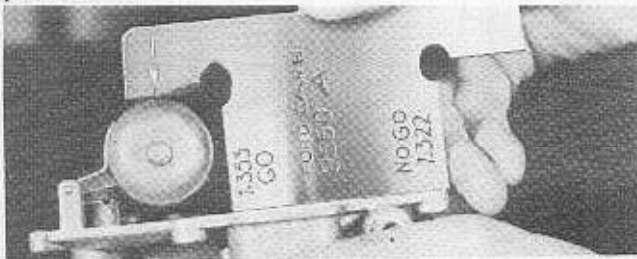


Fig. 34

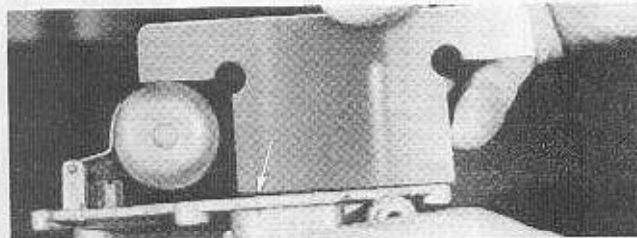


Fig. 35

**52** If float position is not correct it may be changed as shown in Figures 36 and 37. Float arm bending tool #9550-C is used as shown in Fig. 36 if the "No-Go" end of float position gauge does not touch float as shown in Fig. 35. Bend float arm as shown in Fig. 37 if the "Go" end of float position gauge does not clear float as shown in Fig. 34.

### EQUIPMENT USED

- 9350-A—FUEL PUMP AND CARBURETOR TESTER
- 9350-D—FUEL PUMP AND CARBURETOR RECONDITIONING TOOLS
- 9510-D—CARBURETOR FLOAT LEVEL GAUGE (FORD)

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- ALL LINCOLN-ZEPHYR, 1936 to 1940
- ALL LINCOLN, 1941

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Fig. 38



Fig. 39

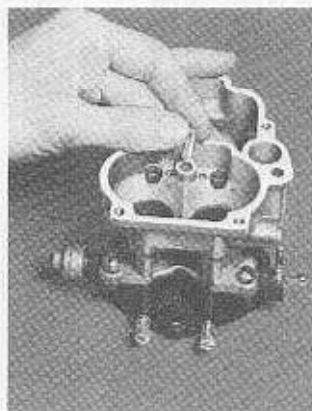


Fig. 40



Fig. 41

**53** Assemble following two parts to main body as shown in Fig. 38, using #9513-C driver:

- (1) 78-9535 Felt washer
- (1) 351336-S Retainer (brass)

**54** Install following two parts, using wrench #9904-A (see Fig. 18 showing use of this tool for disassembly):

- (1) 78-9904 Power by-pass valve (economizer)
- (1) 78-9909 Gasket

This part must be screwed tightly into place. A torque of 15 pound feet is recommended.

**55** Assemble main body to throttle body. Parts used are as follows:

- (1) 78-9513 Main body
- (1) 78-9514 Throttle body assy.
- (1) 78-9516 Gasket—Throttle body
- (1) 31646-S7 Screw
- (2) 31079-S7 Screw
- (1) 34805-S2 Lock washer
- (2) 34804-S2 Lock washer

**56** Assemble following two parts, using a piece of  $\frac{5}{8}$ " diameter wood or fibre dowel stock to push retainer down into place, as shown in Fig. 39. Before installing the re-

tainer, the steel ball should be tapped lightly with a brass drift rod to be sure that it seats tightly.

- (1) 78-9576 Pump check (steel ball)
- (1) 78-9575 Retainer—Pump check

**57** Install main jets 78-9533 of correct size for the carburetor and for the altitude as shown in Service Bulletin, subject S-9000, page 1. Also install the left hand drain plug (78-9562) and gasket (78-9563). Use wrench #9510-A.

**58** Drop the brass discharge needle (78-9594) into place (See Fig. 40) and tap lightly with a brass drift rod to be sure it seats well.

**59** Assemble following parts. Hold nozzle bars while tightening clamp screws, to be sure nozzle bars do not tilt together. Be sure clamps (91A-9928) are straight before using them.

- (4) 78-9926 Gaskets—Nozzle bar (See Fig. 41)
- (1) 78-9580 Gasket—Discharge nozzle
- (1) 78-9577 Discharge nozzle
- (1) 78-9922 Nozzle bar—RH
- (1) 78-9923 Nozzle bar—LH

### ABOVE APPLIES TO MODELS:

ALL FORD V-8 SINCE 1934  
ALL LINCOLN-ZEPHYR, 1936 to 1940  
ALL LINCOLN, 1941

### EQUIPMENT USED

9350-A—FUEL PUMP AND CARBURETOR TESTER  
9350-D—FUEL PUMP AND CARBURETOR RECONDITIONING TOOLS  
9510-D—CARBURETOR FLOAT LEVEL GAUGE (FORD)



## Carburetor Reconditioning (Cont.)

File under "Fuel System"  
Note Subject and Page Number.

**60** Rear clamp and screws are now installed to hold parts listed in paragraph 59.

- (1) 91A-9928 Clamp—Nozzle bar
- (2) 31077-S2 Screws
- (2) 34902-S2 Lock washers

**61** Following parts are now installed:

- (2) 78-9542 Idle tubes
- (2) 78-9924 Air bleed (brass)
- (2) 78-9925 Gasket Air bleed

**62** Front clamp and screws are now installed:

- (1) 91A-9928 Clamp—Nozzle bar
- (2) 31109-S7 Screws
- (2) 34902-S2 Lock washers

**63** Inspect and remove burrs or foreign matter that may have been caused by previous operations. Blow out with compressed air.

**64** Assemble accelerator pump assembly (78-9630) as follows:

- (1) 78-9531-A Pump rod assy.
- (1) 78-9631 Piston assy.—Accelerator pump
- (1) 78-9632 Retainer—Pump rod spring
- (1) 78-9636 Spring—Pump rod

**65** Install accelerator pump assembly (78-9630) using a link (91A-9526). **Be sure the link 91A-9526 has a "C" stamped on it for the 91-A carburetor.** (Use link 78-9526-A, being sure it has a "6" stamped on it, for the 922-A carburetor and for 1936 to 1940 Lincoln and Lincoln-Zephyr carburetors.) Links without these marks are not the correct length and must not be used. Put the lower end of link in correct hole for season of year:

- 1 for summer
- 2 for winter
- 3 for extremely cold weather

**66** Install:

- (1) 78-9520 Air horn assembly
- (1) 78-9519 Gasket—Air horn
- (5) 31628-S7 Screws
- (5) 34803-S2 Lock washers

**67** Install following parts, greasing choke lever pawl before installing choke lever:

- (1) 78-9537 Pawl—choke lever
- (1) 78-9587 Spring—Choke lever pawl
- (1) 78-9548 Choke lever
- (1) 34703-S7 Washer
- (1) 35188-S2 Screw

**68** Install following parts, being sure throttle idle speed adjusting screw is round nosed. If flat nosed it should be replaced:

- (1) 78-9599 Spring—Throttle kicker
- (1) 78-9597 Throttle kicker assy.
- (1) 34703-S7 Washer
- (1) 35188-S2 Screw

**69** Before using throttle and choke arms, etc., compare them with new parts to be sure they have not been bent.

### Final Test — Ford Carburetor (91A-9510A)

**70** Check float level, using glass tube gauge #9510-D with carburetor on final test fixture #9350-A, as shown in Fig. 42. Fuel level should be 11/16" plus or minus 1/32" below upper face of main carburetor body, to bottom of bubble or meniscus in the glass tube. See page 10, Subject 9510 for correct float level for other types.

#### EQUIPMENT USED

9350-A—FUEL PUMP AND CARBURETOR TESTER  
 9350-D—FUEL PUMP AND CARBURETOR RECONDITIONING TOOLS  
 9510-D—CARBURETOR FLOAT LEVEL GAUGE (FORD)

#### ABOVE APPLIES TO MODELS:

ALL FORD V-8 SINCE 1934  
 ALL LINCOLN-ZEPHYR, 1936 to 1940  
 ALL LINCOLN, 1941



MERCURY

# SERVICE BULLETIN



SUBJECT NO. 9510

PAGE NO. 82

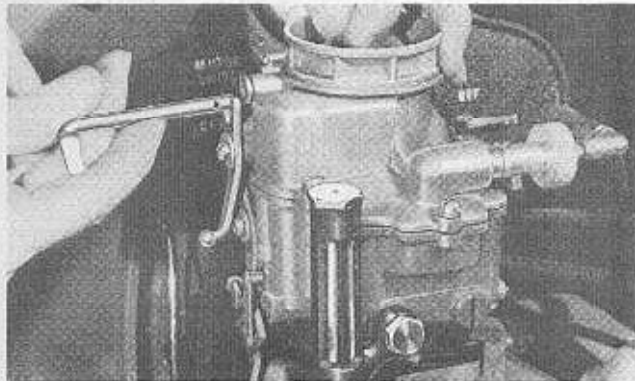


Fig. 42

**71** To be sure accelerating pump is operating properly and that passages leading to discharge jets are open, several strokes of the throttle should be made with liquid in float bowl, while observing through air horn to be sure a good stream comes from each accelerating jet. Locate and correct fault if a good stream does not come from each jet.

**72** With choke plate open, be sure pawl (78-9537) and pawl spring (78-9587) hold it so it will not rattle. The arm on choke shaft must sometimes be bent to prevent any possibility of choke plate rattling. This can be done as shown in Fig. 42, by using an accelerating pump rod (78-9531) from which spring and ball retainer have been removed.

**73** With full choke, be sure that cam on choke lever (78-9548) touches upper end of kicker (78-9598). If the portion of choke lever below cam, as indicated in Fig. 43, touches kicker, file lower edge of bent flange at upper end of kicker so it clears choke lever.

**74** Remove float level gauge #9510-D and install:

- (1) 78-9562 Drain plug
- (1) 78-9563 Gasket—Drain plug

**75** Set idle speed approximately correct for 5 to 7 miles per hour speed in high gear by using a .006" and a .010" feeler blade as shown in Fig. 44. Adjust idle speed adjusting screw so the .006" thick feeler **will** slip between edge of throttle plate and throat, but so that the

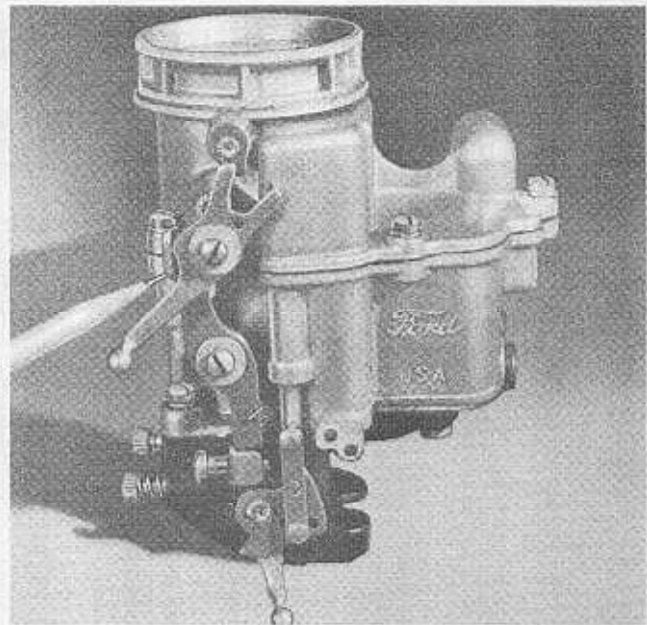


Fig. 43

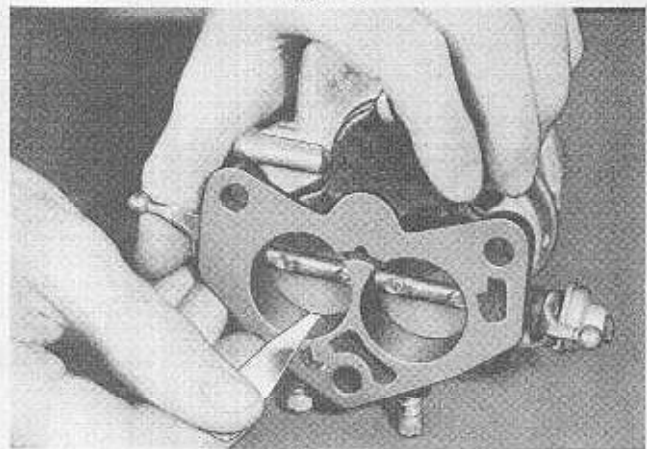


Fig. 44

.010" thick feeler blade **will not**. The feeler blades must not be over  $\frac{1}{8}$ " wide.

**76** After carburetors have been reconditioned, care must be used in handling as a jolt may affect the float level or other parts. Carburetors should be placed in cartons to protect from dirt. Paper plugs should be placed in the fuel inlet opening to prevent entry of dirt.

### ABOVE APPLIES TO MODELS:

ALL FORD V-8 SINCE 1934  
ALL LINCOLN-ZEPHYR, 1936 to 1940  
ALL LINCOLN, 1941

### EQUIPMENT USED

9350-A—FUEL PUMP AND CARBURETOR TESTER  
9350-D—FUEL PUMP AND CARBURETOR RECONDITIONING TOOLS  
9510-D—CARBURETOR FLOAT LEVEL GAUGE (FORD)

November 25, 1940

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## Carburetor Reconditioning (Cont.)

### "STROMBERG" TYPE (67-9510-A)

To hold the "Stromberg" type carburetor during disassembly and reassembly, the same channel iron may be used as illustrated in Fig. 1, page 72, for the Ford carburetor.

### Disassembly—"Stromberg" Type (67-9510-A)

All parts are disassembled. A sequence of disassembly operations that has been found desirable is as follows:



Fig. 1

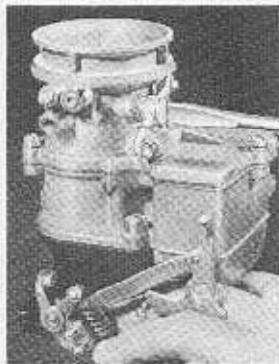


Fig. 2

- 1 Remove the choke lever screw as shown in Fig. 1. This results in removal of:
  - (1) 40-9592 Fulcrum screw—choke lever
  - (1) 40-9539 Spring—choke lever
  - (1) 67-9537 Pawl—choke lever
  - (1) 67-9587 Spring—choke lever pawl
- 2 Remove accelerator pump lever fulcrum screw as shown in Fig. 2, and other parts as follows:
  - (1) 40-9641 Fulcrum screw — accel-erator pump lever
  - (1) 72000-S7 Cotter

- (1) 40-9531 Lever—accelerator pump
- (1) 40-9571 Spring—accelerator pump lever
- (1) 67-9526 Rod—accelerator pump



Fig. 3



Fig. 4

- 3 Remove the choke shaft end cap (40-9645) using wire cutting pliers as shown in Fig. 3 to pull cap out of end of shaft.
- 4 Unscrew all five air horn screws (31062-S7). Lift off air horn as shown in Fig. 4. Remove parts as follows from air horn:

- (5) 31062-S7 Screws
- (5) 34803-S7 Lock washers
- (1) 40-9631 Pump—accelerator
- (1) 67-9632 Retainer — accelerator pump and plunger
- (1) 40-9634 Gasket—accel. pump (felt)
- (1) 40-9636 Spring—accel. pump return
- (1) 67-9637 Seat—accel. pump return
- (1) 40-9639 Washer — accel. pump plunger
- (1) 40-9640 Spring — accel. pump plunger-upper

- 5 Remove following as shown in Fig. 5:
  - (2) 40-9542 Jet—idling

#### EQUIPMENT USED

9350-A—FUEL PUMP AND CARBURETOR TESTER  
 9350-D—FUEL PUMP AND CARBURETOR RECONDITIONING TOOLS

#### ABOVE APPLIES TO MODELS:

ALL FORD V-8 SINCE 1934  
 ALL LINCOLN-ZEPHYR, 1936 to 1940  
 ALL LINCOLN, 1941

File under "Fuel System"  
(Note Subject and Page Number)



MERCURY

# SERVICE BULLETIN



SUBJECT NO. 9510

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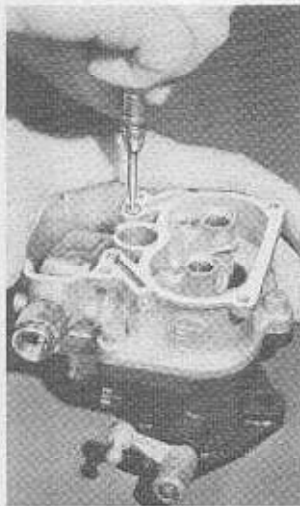


Fig. 5

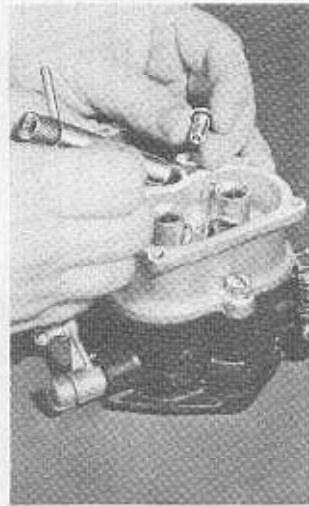


Fig. 6

**6** Remove following as shown in Fig. 6, using special screw driver #9594-B:

- (1) 67-9594 Economizer valve (Power by pass valve)



Fig. 7

**7** Remove following as shown in Fig. 7:

- (1) 40-9564 Valve—fuel needle and seat

The fuel needle and seat must be kept in sets as removed from carburetor as one needle will not always work properly in another seat. Rinse off parts in sets in cleaning solution and wipe off with a clean cloth.

Discard both needle and seat if needle shows any signs of wear on seating end. Polish end of needle that contacts float.



Fig. 9

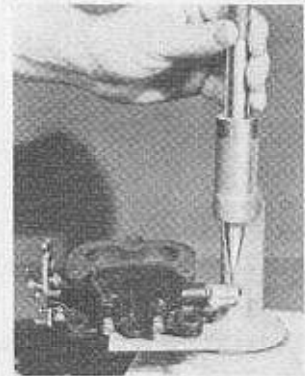


Fig. 10

**8** Remove following as shown in Fig. 8:

- (1) 40-9558 Pin—float hinge
- (1) 40-9550 Float assembly

**9** Remove float bowl to throttle body screws and washers as follows or shown in Fig. 9:

- (3) 31088-S7 Screws
- (3) 34805-S7 Washers

**10** Remove pin for throttle shaft loose lever stop, and other parts as follows. Use #9359-D guiding fixture, #9614-A driver, and #9614-B anvil as shown in Fig. 10:

- (1) 72195-S7 or S8 Pin—throttle shaft loose lever stop
- (1) 40-9614-B Stop — Throttle shaft loose lever
- (1) 40-9624-B Spring — Throttle shaft loose lever
- (1) 40-9615-C Lever — Throttle shaft (loose)
- (2) 40-9541 Needle — Idle adjusting
- (2) 40-9578 Spring — Idle adjusting needle

## ABOVE APPLIES TO MODELS:

ALL FORD V-8 SINCE 1934  
ALL LINCOLN-ZEPHYR, 1936 to 1940  
ALL LINCOLN, 1941

## EQUIPMENT USED

9350-A — FUEL PUMP AND CARBURETOR TESTER  
9350-D — FUEL PUMP AND CARBURETOR RECONDITIONING TOOLS

November 25, 1940

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## Carburetor Reconditioning (Cont.)

- 11** Remove throttle plates and shaft as follows:
- (4) 40-9586 Screws—Throttle plates
  - (2) 40-9585 Plates—Throttle
  - (1) 67-9581 Shaft—Throttle and lever

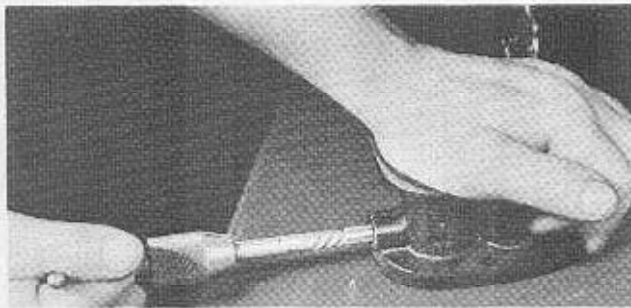


Fig. 11

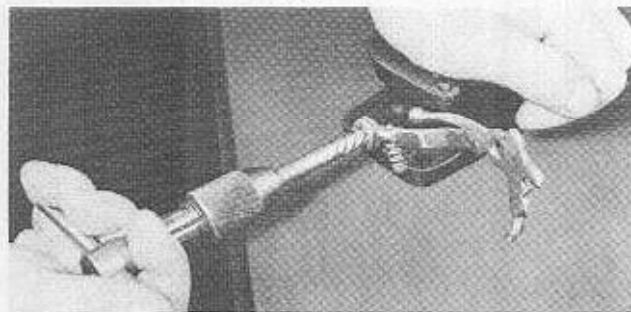


Fig. 12

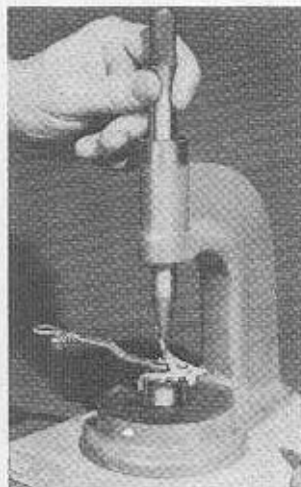


Fig. 13



Fig. 14

- 12** Remove throttle shaft bushings as shown in Figs. 11 and 12, using #9644-B Ezy Out tap. This results in removal of the following:

- (1) 40-9657 Bushing—Throttle stem
- (1) 40-9644 Bushing—Throttle body kicker
- (1) Choke lever and throttle kicker assy.

- 13** Disassemble choke lever and throttle kicker, using #9539-D guiding fixture, #9614-A driver and #9579-C anvil as shown in Fig. 13. Following are the parts disassembled:

- (1) 67-9548 Lever—Air shutter
- (1) 40-9579 Rivet—Throttle link
- (1) 40-9595 Washer—Kicker spring
- (1) 40-9597 Kicker—Carburetor throttle
- (1) 40-9643 Washer—Kicker



Fig. 15

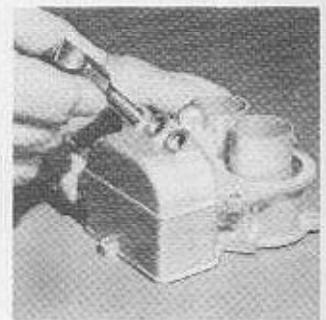


Fig. 16

- 14** Remove following parts from float bowl as shown in Figs. 14, 15, 16 and 17:

- (2) 40-9522 Plugs—Metering jets
- (1) 40-9562 Plug—Drain
- (1) 40-9573 Check valve—Accelerator pump
- (2) 67-9533-A Jet—Main metering. Use #9510-B jet wrench. See Fig. 16.
- (2) 40-9534 Tube—Main jet discharge. Use #9534-A remover. See Fig. 17. Do not drive on this remover or the discharge tubes will be ruined.

### EQUIPMENT USED

9350-A—FUEL PUMP AND CARBURETOR TESTER  
 9350-D—FUEL PUMP AND CARBURETOR RECONDITIONING TOOLS

### ABOVE APPLIES TO MODELS:

ALL FORD V-8 SINCE 1934  
 ALL LINCOLN-ZEPHYR, 1936 to 1940  
 ALL LINCOLN, 1941

File under "Fuel System"  
(Note Subject and Page Number)



Fig. 17



Fig. 18

**15** Remove choke plate and shaft as follows:  
See Fig. 18.

- (2) 40-9586 Screws
- (1) 40-9549 Choke plate assy.
- (1) 40-9546 Choke shaft assy.

**16** Clean all parts, being particularly sure that all corrosion is removed from the float bowl of carburetor. Thorough cleaning of all parts is a first essential of producing a good reconditioned carburetor. The procedure outlined on Page No. 61, Subject No. 9350, will do a high quality cleaning job.

## Inspection and Reconditioning of Parts —“Stromberg” Type (67-9510-A)

### Air Horn (upper body) and Choke Plate Assembly

**17** Make a visual inspection for signs of rough handling and mutilation and discard parts if damaged.



Fig. 19

**18** Clean out hole for choke lever pawl using reamer 9537-A as shown in Fig. 19.

**19** Check poppet valve stem in choke plate. If loose or if poppet valve spring is weak or broken so valve will not stay in position firmly, discard choke plate assembly (40-9549).

### Throttle Body

**20** Place dummy idle adjustment screws (40-9541) in throttle body and repaint outside of throttle body with black lacquer being careful not to get paint inside throat, in idle fuel passages, or on gasket surfaces.

**21** Clean out the idle adjustment screw discharge holes into throat, using hand chuck 9518-E and 9518-F drill (.046") as shown in Fig. 27, page 77.

**22** Clean out the upper idle discharge hole into throat, using the 9515-A cleanout tool with .037" diameter wire. See Fig. 20.

#### ABOVE APPLIES TO MODELS:

ALL FORD V-8 SINCE 1934  
ALL LINCOLN-ZEPHYR, 1936 to 1940  
ALL LINCOLN, 1941

#### EQUIPMENT USED

9350-A —FUEL PUMP AND CARBURETOR TESTER  
9350-D —FUEL PUMP AND CARBURETOR RECONDITIONING TOOLS





## Carburetor Reconditioning (Cont.)

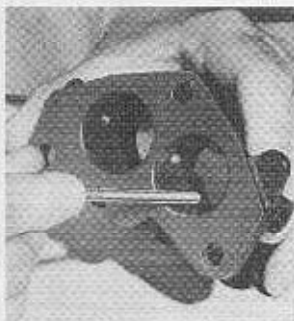


Fig. 20

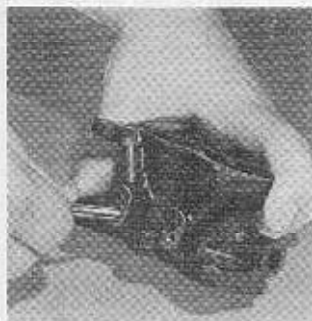


Fig. 21

**23** Clean out idle adjustment screw threads in throttle body, using tap #9514-A as shown in Fig. 22. Care must be used not to remove any metal as the screws 40-9541 must fit tightly enough to prevent an air leak which would prevent obtaining proper idling mixture adjustment.

**24** The idle adjusting needle seat need not be refaced as was done on the Ford carburetor (Fig. 29 on page 77) as the point of the idle needle on the Stromberg type carburetor has an angle of only 20°. This angle is 40° in the case of the Ford carburetor.

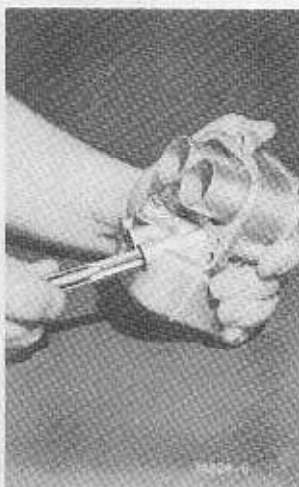


Fig. 22

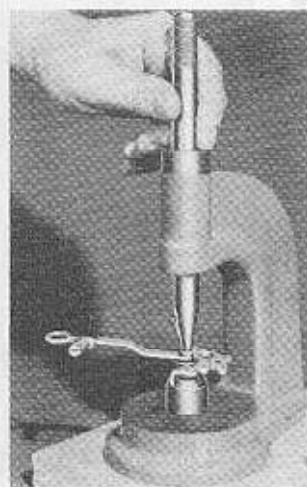


Fig. 23

### Float Bowl

**25** Make a visual inspection for signs of rough handling or mutilation and discard parts if damaged.

**26** Clean out threads for main jets as shown in Fig. 22. Use tap 9533-A.

**27** Inspect all passages and clean out any obstructions.

### Choke Lever

**28** Inspect ball end of choke lever (67-9548) and discard part if ball shows appreciable wear.

### Float

**29** Inspect float 40-9550 to be sure solder holding lever to float is in good condition. Inspect float for leaks by holding it under surface of water that has been heated to just below the boiling point. Bubbles will appear if float leaks. Float should be discarded if it leaks.

**30** Polish fuel needle contact surface of float arm.

### Reassembly—"Stromberg" Type (67-9510A)

**31** All new gaskets, cotters, rivets, and pins must be used when reassembling. The following parts also should be renewed 100%:

- (1) 40-9631 Pump—Accelerator
- (1) 40-9644 Bushing—Throttle body kicker
- (1) 40-9657 Bushing—Throttle stem

#### EQUIPMENT USED

9350-A—FUEL PUMP AND CARBURETOR TESTER  
 9350-D—FUEL PUMP AND CARBURETOR RECONDITIONING TOOLS

#### ABOVE APPLIES TO MODELS:

ALL FORD V-8 SINCE 1934  
 ALL LINCOLN-ZEPHYR, 1936 to 1940  
 ALL LINCOLN, 1941

File under "Fuel System" (Note Subject and Page Number)



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**32** Assemble following parts, using #9359-D guiding fixture, #9579-B riveter, #9579-C and #9579-D anvils as shown in Fig. 23. Be sure rivet is installed so parts held work together freely:

- (1) 67-9548 Lever—Air shutter
- (1) 40-9579 Rivet—Throttle link
- (1) 40-9595 Washer—Kicker spring
- (1) 40-9597 Kicker—Carburetor throttle
- (1) 40-9643 Washer—Kicker



Fig. 24



Fig. 25

**33** Install new throttle shaft bushings in throttle body, as shown in Figures 24 and 25, using piloted driver 9644-C. Following parts are installed:

- (1) 40-9644 Bushing — throttle body kicker
- (1) 40-9657 Bushing—throttle stem
- (1) Choke lever and throttle kicker assembly

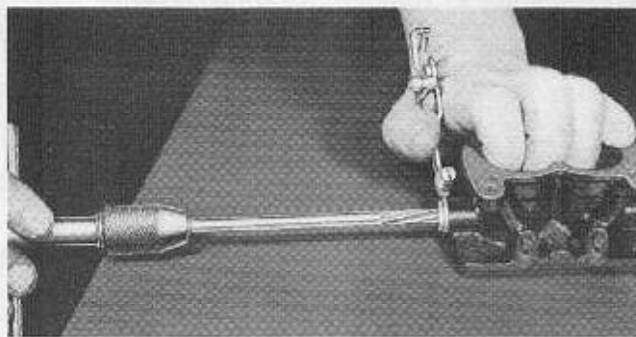


Fig. 26

**34** Line ream throttle shaft bushings with 9644-A reamer as shown in Fig. 26.

**35** Do not use old throttle shaft assembly (67-9581) if it is worn enough to permit an air leak past the bushings in throttle body. Also be sure lever is tight on shaft and that ball end studs for accelerating pump link are tight.

**36** Install throttle plates and shaft. Edges of throttle plates are beveled to fit tightly into throttle throat so care must be used not to install them upside down. Before tightening throttle plate screws, close throttle tightly. This will center the throttle plates properly at which time throttle plate screws should be tightened. Following are the parts that are installed:

- (4) 40-9586 Screws—throttle plates
- (2) 40-9585 Plates—throttle
- (1) 67-9581 Shaft—throttle and lever

**37** Make visual inspection of tightness of fit of throttle plates when closed, by holding towards a light and observing amount of light that can be seen around edges of throttle plates. A very snug fit is necessary for proper idling and low speed operation. If throttle plates or throttle body are worn so a tight fit cannot be obtained, install new parts as needed.

## ABOVE APPLIES TO MODELS:

ALL FORD V-8 SINCE 1934  
ALL LINCOLN-ZEPHYR, 1936 to 1940  
ALL LINCOLN, 1941

## EQUIPMENT USED

9350-A—FUEL PUMP AND CARBURETOR TESTER  
9350-D—FUEL PUMP AND CARBURETOR RECONDITIONING TOOLS

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## Carburetor Reconditioning (Cont.)

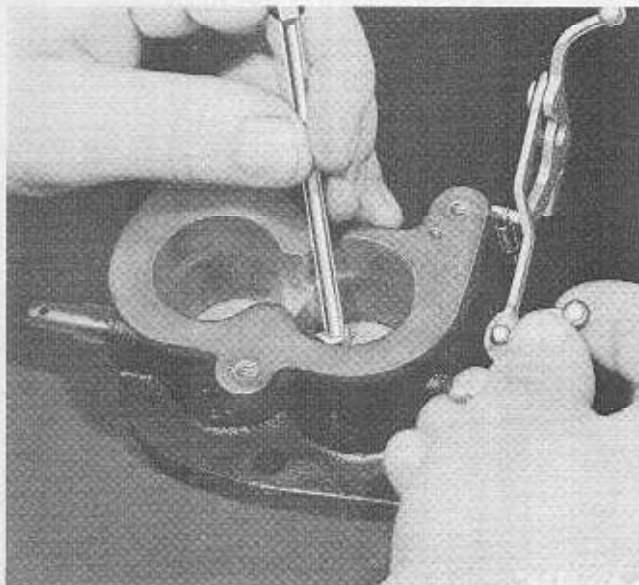


Fig. 27

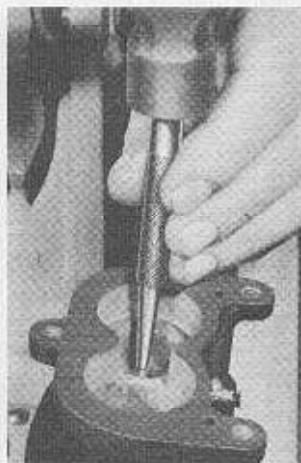


Fig. 28

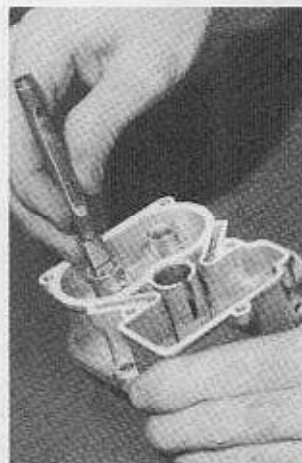


Fig. 29

File under "Fuel System"  
(Note Subject and Page Number)

**38** Hold throttle closed and gauge distance from throttle plates to the idle discharge holes just above plates as shown in Fig. 27. Use "Go", "No-Go" gauge #9518-B. If distance is not within gauge limits, install new throttle plates on throttle body or both if needed. Poor idling and low speed operation will likely be encountered if this dimension is not within specified limits.

**39** Stake end of brass throttle plate screws with center punch #9518-D and anvil #9518-C, as shown in Fig. 28, so they will not come loose. Be sure to place throttle body assembly on the anvil with proper side on highest side of anvil. If it is placed on anvil improperly, throttle plates will be wedged tightly into throttle body throat and the parts ruined.

**40** Assemble following parts to throttle body assembly:

- (2) 40-9541 Needle—idle adjusting
- (2) 40-9578 Spring — idle adjusting needle
- (1) 40-9615-C Lever — throttle shaft (loose)
- (1) 40-9624-B Spring — throttle shaft loose lever
- (1) 40-9614-B Stop—throttle shaft loose lever
- (1) 72195-S7 or 8 Pin—throttle shaft loose lever stop

**41** Idle adjustment screws should be run in just barely snug, then backed out  $\frac{5}{8}$  to  $\frac{3}{4}$  turns.

**42** Assemble following parts to air horn:

- (1) 40-9546 Choke shaft assembly
- (1) 40-9549 Choke plate assembly
- (2) 40-9586 Screws

Before tightening the screws, close choke tightly. This will center the choke plate properly at which time screws can be tightened.

**43** Stake end of brass screws with center punch #9518-D and anvil #9518-C.

### EQUIPMENT USED

- 9350-A—FUEL PUMP AND CARBURETOR TESTER
- 9350-D—FUEL PUMP AND CARBURETOR RECONDITIONING TOOLS

### ABOVE APPLIES TO MODELS:

- ALL FORD V-8 SINCE 1934
- ALL LINCOLN-ZEPHYR, 1936 to 1940
- ALL LINCOLN, 1941



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**44** Assemble following parts to float bowl.  
Use jet of correct size for the carburetor and for the altitude as shown in Service Bulletin, Subject No. S-9000, Page No. 1. Use tool #9510-B to install jets and plugs.

- (2) 40-9534 Tube—main jet discharge
- (2) 67-9533 Jet—main metering
- (2) 40-9522 Plugs—metering jets
- (2) 40-9563 Gaskets—plug

**45** Jet size is marked on main body lower flange towards back side of carburetor. Size should be removed if a different jet is installed than the size marked.

**46** Gauge distance from outlet end of main jet tubes to side of venturi, using "Go"—"No-Go" gauge 9534-B, as shown in Fig. 29. Discard tubes or float bowl or both if necessary to obtain limits within "Go"—"No-Go" surfaces of gauge.

**47** Assemble float bowl to throttle body, using following:

- (3) 31088-S7 Screws
- (3) 34805-S7 Washers
- (1) 40-9516 Gasket—throttle body

**48** Install:

- (1) 40-9558 Pin—float hinge
- (1) 40-9550 Float assembly
- (1) 40-9564 Valve—float needle and seat
- (1) 67-9594 Power jet (power by pass valve)
- (2) 40-9542 Jet—idling

**49** Place assembly on the #9350-A carburetor and fuel pump tester, install #9550-E carburetor bowl drain cock as shown in Fig. 30.

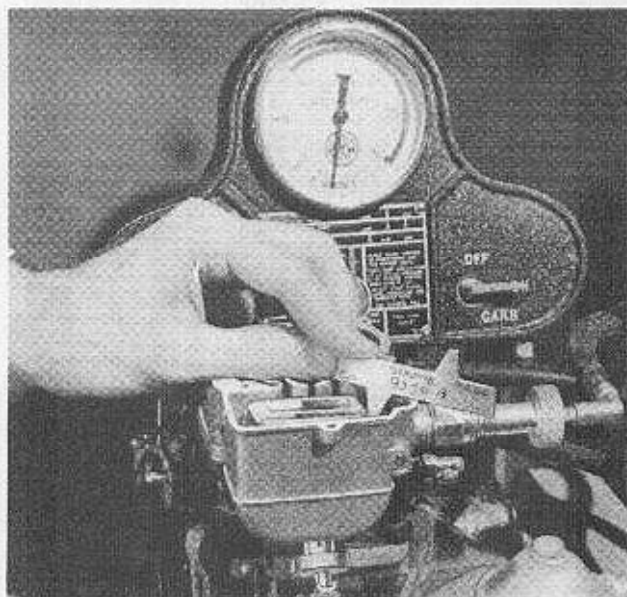


Fig. 30.

**50** Install a fuel pump on the #9350-A tester, make connections and start motor so fuel will be supplied to carburetor under specified pressure.

**51** Check level of fuel in float bowl, using "Go"—"No-Go" gauge #9550-B as shown in Fig. 30. "Go" end of gauge should just barely dip into the fuel. "No-Go" end should not touch the fuel. Be sure gauge is dry as any moisture or fuel adhering to the end of gauge will prevent obtaining a correct reading. Be sure end of gauge is well over in center of bowl away from the edge where the fuel adheres to side of bowl. The #9350-A tester must be level.

### ABOVE APPLIES TO MODELS:

ALL FORD V-8 SINCE 1934  
ALL LINCOLN-ZEPHYR, 1936 to 1940  
ALL LINCOLN, 1941

### EQUIPMENT USED

9350-A—FUEL PUMP AND CARBURETOR TESTER  
9350-D—FUEL PUMP AND CARBURETOR RECONDITIONING TOOLS



## Carburetor Reconditioning (Cont.)



Fig. 31

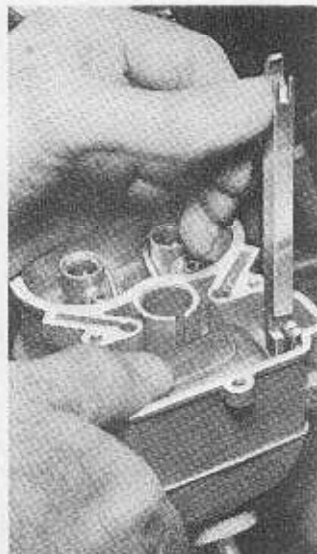


Fig. 32

**52** If fuel level is too low it can be raised as shown in Fig. 31, using #9550-C float arm bending tool. If level is too high it can be lowered as shown in Fig. 32.

**53** Before rechecking fuel level it is necessary to drain float bowl with drain cock #9550-E installed in paragraph #49.

**54** Install air horn with following parts:

- (1) 48-9519 Gasket—upper body
- (5) 31062-S7 Screws
- (5) 34803-S7 Lock washers
- (1) 40-9631 Pump—accelerator
- (1) 67-9632 Retainer—accelerator pump plunger
- (1) 40-9634 Gasket—accel. pump (felt)
- (1) 40-9636 Spring—accel. pump return
- (1) 67-9637 Seat—accel. pump return
- (1) 40-9639 Washer—accel. pump plunger
- (1) 40-9640 Spring—accel. pump plunger—upper

- (1) 40-9645 Cap—choke shaft
- (1) 40-9641 Fulcrum screw—accel. pump lever
- (1) 72000-S7 Cotter
- (1) 40-9531 Lever—accel. pump
- (1) 40-9571 Spring—accel. pump lever
- (1) 67-9526 Rod—accel. pump
- (1) 40-9592 Fulcrum screw—choke lever
- (1) 40-9539 Spring—choke lever
- (1) 67-9537 Pawl—choke lever
- (1) 67-9587 Spring—choke lever pawl

**55** Put accelerator pump link in the "S" position since this is the correct position for making the test of power by pass valve opening as outlined in paragraphs 58 to 67.

**56** Grease choke lever pawl (67-9537) at time of assembly.

**57** Grease choke lever fulcrum screw (40-9592) at time of assembly.

**58** Before using throttle and choke arms, etc., compare them with new parts to be sure they have not been bent.

### Final Test—"Stromberg" Type (67-9510-A)

**59** The power by pass valve (67-9594) must open correctly with respect to throttle plate position as shown in Figures 33 and 34. If it opens too soon, fuel economy will be reduced as much as 10 to 15%. If it opens too late there will be a loss of power at wide open throttle due to too lean a mixture.

#### EQUIPMENT USED

- 9350-A—FUEL PUMP AND CARBURETOR TESTER
- 9350-D—FUEL PUMP AND CARBURETOR RECONDITIONING TOOLS

#### ABOVE APPLIES TO MODELS:

- ALL FORD V-8 SINCE 1934
- ALL LINCOLN-ZEPHYR, 1936 to 1940
- ALL LINCOLN, 1941

File under "Fuel System"  
(Note Subject and Page Number)



MERCURY

# SERVICE BULLETIN



SUBJECT NO. 9510

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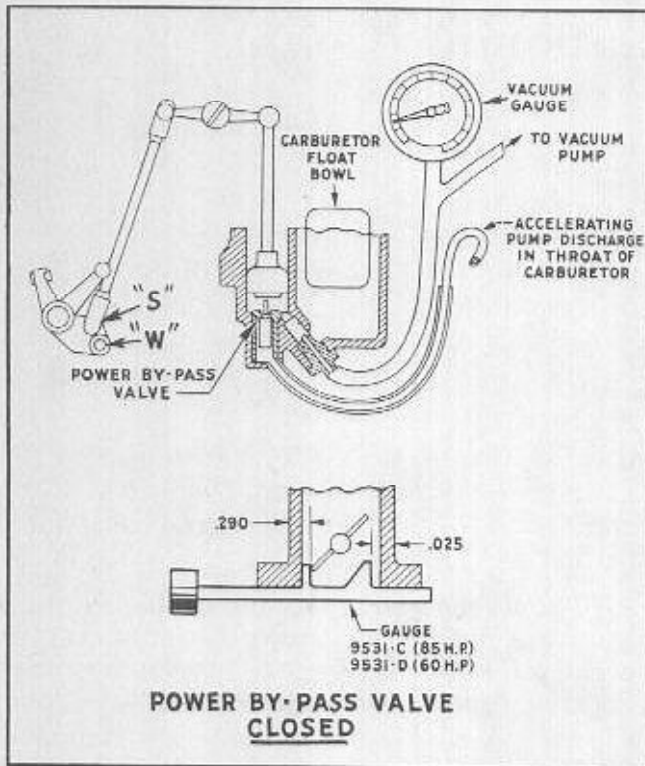


Fig. 33

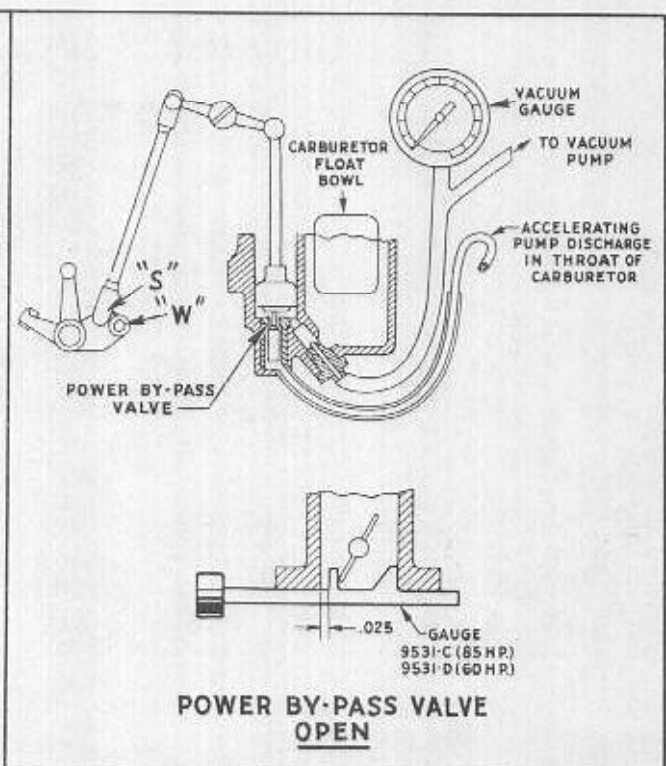


Fig. 34

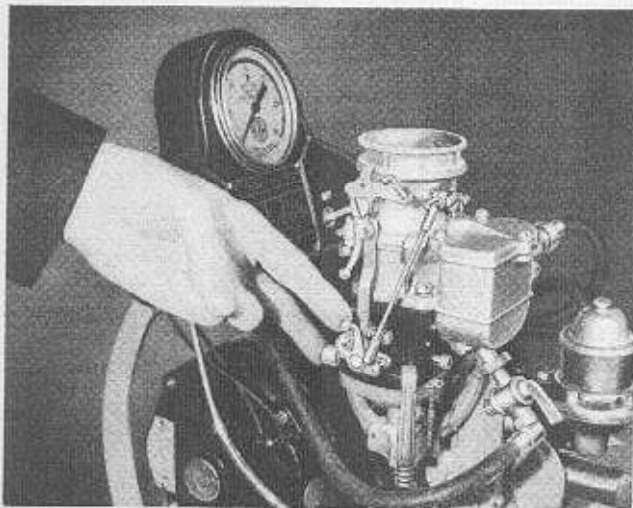


Fig. 35

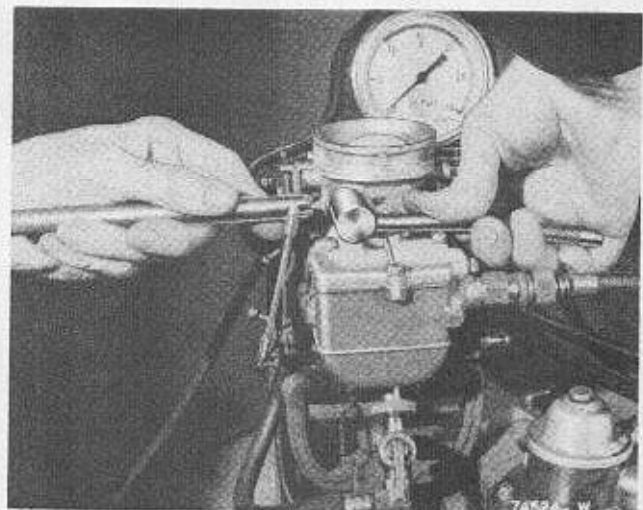


Fig. 36

### ABOVE APPLIES TO MODELS:

ALL FORD V-8 SINCE 1934  
 ALL LINCOLN-ZEPHYR, 1936 to 1940  
 ALL LINCOLN, 1941

### EQUIPMENT USED

9350-A—FUEL PUMP AND CARBURETOR TESTER  
 9350-D—FUEL PUMP AND CARBURETOR RECONDI-  
 TIONING TOOLS

November 25, 1940

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## Carburetor Reconditioning (Cont.)

File under "Fuel System"  
(Note Subject and Page Number)

**60** To check throttle position at which power by-pass valve opens, place carburetor on the #9350-A tester as shown in Fig. 35. The throttle plate position gauge (#9531-C for 85-HP, #9531-D for 60-HP) must be in position in the slot in test unit flange on which carburetor is placed. Throttle must be wide open when placing carburetor on test unit so edge of throttle plate will enter the #9531-C or D gauge as shown in Figs. 33 and 34.

**61** Install a fuel pump on the test unit and connect hoses to inlet and outlet connections of pump as marked on instrument panel instruction plate.

**62** Turn the three valves on instrument panel to the position for testing fuel pump vacuum as marked on instrument panel instruction plate.

**63** Connect hose (with valve at connector fitting) into bottom of float chamber as shown in Fig. 35. Drain plug (40-9562) and check valve (40-9573) have not yet been installed in carburetor, in order to permit this test to be made.

**64** Now start the motor of test unit and move throttle until position is found at which the vacuum reading drops to zero. The relationship between this position and the throttle plate position shown in Figures 33 and 34 will indicate how much the end of accelerating pump lever (40-9531) must be bent down to obtain proper adjustment of opening of power by-pass valve.

**65** In case the vacuum reading remains at zero, even with throttle closed as far as the #9531-C or D gauge will permit, this indicates that the power by-pass valve opens much too soon. The end of the accelerating pump lever (40-9531) must be bent **up** to correct this condition.

**66** To bend the accelerating pump lever (40-9531) use tools #9531-A and #9531-B as shown in Fig. 36.

**67** When the accelerating pump lever (40-9531) has been set correctly, the power by-pass valve will be open with edge of throttle plate held tight against the #9531-C or D gauge. In this position the edge of throttle plate will be 0.290" from side of throttle throat, and there will be a vacuum reading as shown in Fig. 33.

Then, when the throttle position gauge #9531-C or D is pushed to opposite side of carburetor throat as shown in Fig. 34, the vacuum reading should drop to zero. In this position the edge of throttle plate will be 0.315" from side of throttle throat (0.290" plus the 0.025" movement permitted by the #9531-C or D gauge) as shown in Figures 33 and 34.

**68** The test outlined in paragraph 66 can be made very easily by pushing on the throttle lever with one finger and simultaneously pushing on the #9531-C or D gauge with another finger of the same hand as shown in Fig. 35.

**69** Put accelerator pump link in the correct position for the season of year:

"S" for summer

"W" for winter

### EQUIPMENT USED

9350-A—FUEL PUMP AND CARBURETOR TESTER  
9350-D—FUEL PUMP AND CARBURETOR RECONDITIONING TOOLS

### ABOVE APPLIES TO MODELS:

ALL FORD V-8 SINCE 1934  
ALL LINCOLN-ZEPHYR, 1936 to 1940  
ALL LINCOLN, 1941



MERCURY

# SERVICE BULLETIN



SUBJECT NO. 9510

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**70** Remove hose connection from carburetor float bowl drain plug opening, turn valve in hose to off position and install:

- (1) 40-9573 Check valve—Accel. pump
- (1) 40-9562 Drain plug—Float bowl

**71** Turn the three valves on test unit instrument panel to the position to fill carburetor float bowl and run test unit motor. Remove throttle plate position gauges #9531-C or D so throttle can be moved from full open to closed positions.

Now, to be sure accelerating pump is operating properly and that all passages leading to accelerating discharge jets are open, quickly move throttle lever from full closed to full open positions. Do this several times, while observing through air horn to be sure a good stream comes from the accelerating jet in each throat of the carburetor. Locate and correct fault if a good stream does not come from each accelerating jet.

**72** Remove drain plug (40-9562) long enough to drain float bowl, then replace it using a new gasket (40-9563).

**73** With choke plate open be sure pawl (67-9537), pawl spring (67-9587), and choke lever spring (40-9539) hold choke so it will not rattle. Free up any binding of pawl (67-9537) or adjust arm on choke shaft to prevent any possibility of choke plate rattling. Choke shaft arm can be adjusted if necessary, the same as shown in Fig. 43, page 82 for the Ford carburetor, by using an accelerating pump rod (78-9531) from the end of which the spring and ball retainer have been removed.

**74** Remove carburetor from test unit and set idle speed approximately correct for 5 to 7 miles per hour speed in high gear by using a .006" and a .010" feeler blade as shown in Fig. 45, page 82. Adjust idle speed adjusting screw so the .006" thick feeler will slip between edge of throttle plate and throat, but so that the .010" thick feeler blade will not. The feeler blades must not be over 1/8" wide. This setting will usually be obtained with idle speed adjusting screw approximately 1 3/4 turns from closed throttle position.

**75** After carburetors have been reconditioned, care must be used in handling as a jolt may affect the float level or other parts. Carburetors should be placed in cartons to protect from dirt. Paper plugs should be placed in fuel inlet opening to prevent entry of dirt.

### ABOVE APPLIES TO MODELS:

ALL FORD V-8 SINCE 1934  
 ALL LINCOLN-ZEPHYR, 1936 to 1940  
 ALL LINCOLN, 1941

### EQUIPMENT USED

9350-A--FUEL PUMP AND CARBURETOR TESTER  
 9350-D--FUEL PUMP AND CARBURETOR RECONDITIONING TOOLS

November 25, 1940

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