SERVICE PROCEDURE
W-1 CARBURETER

A fast, simple, Circuit method of servicing Carter W-1 Carbureters. Use Carter Tool Kit. BE ACCURATE.

1. Disconnect throttle connector rod at pump arm.
   Check for wear at upper end of rod and hole in pump arm.

2. Remove throttle shaft arm and throttle connector rod.
   Check for wear at lower end of rod and hole in arm.

3. Remove bowl cover with all parts attached.
   Remove pump spring from cylinder in gasket.

4. Remove nozzle passage plug, nozzle and retainer plug.
   Be sure to remove small nozzle gasket from casting.

5. Remove air horn assembly.

6. Remove pump jet plug and pump jet.
   Be sure to remove small copper washer from casting.

7. Remove metering rod jet and gasket assembly.

8. Remove idle adjustment screw and spring.
   Check for groove on seating surface.

9. Remove idle port plug.
   Remove small copper washer from casting.

10. Remove check valve passage plug, strainer, intake and discharge check valves.
    Remove copper washer from casting.

11. Remove low speed jet.
    Remove small copper washer from casting.

12. Remove throttle valve, throttle shaft and lever assembly.
    Check shaft and hole in lever for wear. Also check for loose lever on shaft.
13. Remove all parts from bowl cover.

14. Remove all parts from air horn.
(See note at bottom of page.)

TO REASSEMBLE

15. Group all parts controlling gasoline level.

16. Group all parts controlling idle circuit.

17. Group all parts controlling high speed circuit.

18. Group all parts controlling pump circuit.

19. Group all parts controlling choke circuit.

Examine each part in the five groups and replace any parts that show wear, or do not meet specifications. Installation of Repair Parts Package is recommended when rebuilding carburetor.

20. Assemble parts that control gasoline level.

Check float for dents and wear on lip, and float pin for wear. Check bowl cover for warpage, wear in countershaft or countershaft hole. If seating surface of needle indicates wear, replace both needle and seat.

21. Install needle seat and gasket assembly.

22. Install needle, float and lever assembly and float pin.

23. Set float level to specifications.

Measure from machined surface of bowl cover. See specification sheet for correct gauge. Adjust by bending lip—not float.

24. Assemble idle circuit parts as shown.

Never reinstall a used low speed jet. Remove all carbon from bore of casting.

Note: Clean castings and all parts thoroughly with gasoline or approved carburetor cleaner. Paint outside of body casting. Paint inside of bowl to a depth of one inch from top edge of casting. Use Carter Special Body Finish.
25. Install throttle shaft and lever assembly, and throttle valve.
Back out throttle lever set screw. Small "c" or part number on face of valve should be toward idle port when viewed from manifold side of flange. Center throttle valve by tapping lightly before tightening screws. Always use new screws.

26. Install idle adjustment screw and spring.
Back out from seated position to specification.

27. Install idle port plug.
Use new copper washer.

28. Install new low speed jet.
Be sure to install new copper washer in casting before installing jet.

29. Assemble parts for pump circuit.
Check leather for mutilation. Soak leather in oil before installing.

30. Install pump jet and pump jet plug.
Be sure jet is clear of all restriction and seats in casting. Use new copper washer under plug.

31. Install discharge check assembly.
Be sure assembly seats in casting.

32. Install intake check assembly.
Be sure assembly seats in casting.

33. Install check valve passage plug and strainer.
Place new copper washer in casting before installing plug and strainer.

34. Install pump spring and pump plunger assembly.
Use loading tool to avoid damage to plunger leather.

35. Assemble parts controlling high speed circuit.
Check pump arm and countershaft for wear and for loose lever. If metering rod shows wear, replace both rod and jet. New nozzles should be used whenever carbureters are serviced.

36. Install metering rod jet and gasket assembly.
37. Install bowl cover as assembled, and gasket.
   Press pump cylinder gasket (cork ring) into recessed portion of bowl cover before installing. Use new bowl cover gasket.

38. Install pump arm assembly.
   Install pump connector link.

39. Install metering rod gauge.
   Pin in pump arm should rest on shoulder of notch in gauge. See specification sheet for correct gauge number.

40. Install throttle shaft arm and throttle connector rod.

41. Throttle connector rod should just fit in hole in pump arm with throttle valve seated.
   Adjust by bending connector rod at lower angle. Remove gauge and connect top end of rod in pump arm.

42. Install metering rod and disk.
   Make certain rod is in jet. Hook metering rod spring to rod.

43. Install air horn and choke tube bracket.
   Use new air horn gasket in all balanced bowl vent carbureters.

44. Install nozzle, retainer and passage plug.
   Put new gasket on nozzle before installing. Slip nozzles should always be installed with flat surface upward. Insert new copper washer in casting before installing plug.

45. Assemble parts controlling choke circuit.
   Check for loose lever on shaft.

46. Install choke shaft and lever assembly and spring.

47. Install choke valve.
   Center valve in air horn before tightening screws. Always use new screws.

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**LUBRICATION**

Lubricate pump arm and countershaft assembly with graphite grease inserted through dust cover attaching screw hole in bowl cover. Use several drops of oil on felt packing of later type units to lubricate countershaft. Do not oil or grease other carbureter linkage as the increased accumulation of grit will accelerate wear.

Always use new gasket assortment when servicing a Carter Carbureter.

Protect your work with a Carter Ceramic Filter.

**NO CARBURETER CAN DELIVER GOOD MILEAGE OR PERFORMANCE UNLESS COMPRESSION IS NORMAL AND THE ENGINE IS PROPERLY TUNED.**