SERVICE BULLETIN #1034

SUBJECT SERVICING THE BALL VALVE SEAT.

MODEL MAC D30, D36, S44A, and S55A DATE 8/25/58

Recently a batch of inlet valve seats, P/N 55119, was used in which the synthetic rubber swelling characteristics were not according to design specifications. Excessive swelling of the ball seat upon contact with fuel was discovered only after the seats had been installed in carburetors and shipped to the field. When the ball seat swelled beyond allowable limits, the ball valve closed and the fuel supply was cut off.

A malfunctioning ball valve seat is indicated when an engine refuses to start even though it has been primed. Ball valve malfunctioning is further indicated when an engine tends to run lean under load and gradually starves out for lack of fuel. This latter condition becomes worse until the engine cannot be started at all.

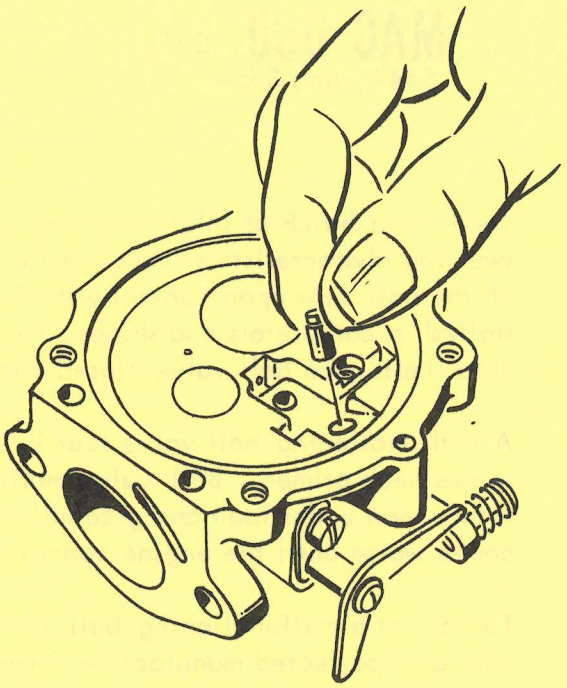
To correct a malfunctioning ball valve, the seat must be replaced with one of a more recent and perfected manufacture. These new seats, which are now being installed in production engines and shipped for service replacements, have been checked with special care by the manufacturer's laboratory chemists and again by our own inspection department to insure minimum swelling when contact with fuel is made.

The substitution of ball seats can be performed simply by following carefully, these steps:

1. Remove Carburetor Assembly, P/N 55122 or P/N 50070, from engine.
2. Remove Fuel Pump Body, P/N 55171, Fuel Pump Diaphragm, P/N 55070, Gasket, P/N 55069, Diaphragm Plate, P/N 55068, and Diaphragm Assembly, P/N 55067 from carburetor.
3. Remove Inlet Valve Lever, P/N 55066, Pin, P/N 55065, and Spring, P/N 55084, by removing Retaining Screw, P/N 104164.
4. Remove steel Check Ball, P/N 100302.
5. With a piece of stiff wire pull out the old ball seat and discard it.

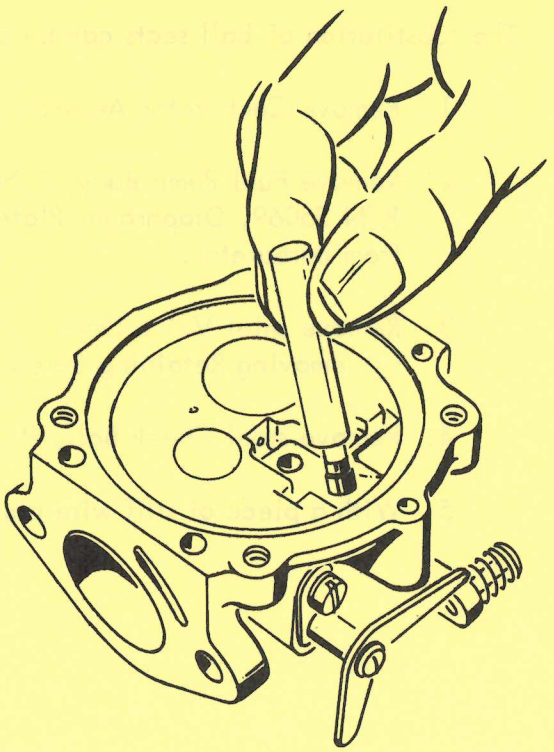
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6. Moisten a new ball seat with saliva (spit) and start it with the fingers into the carburetor body bore, with shouldered end outward



7. Insert the special Ball Seat Installation Tool, P/N 104178, into the seat.

8. Work the seat gently into the carburetor body bore until shoulder of installation tool bottoms on the carburetor body, at which point the seat has reached its required depth of .085" below top face of bore.



9. Reinstall steel check ball.

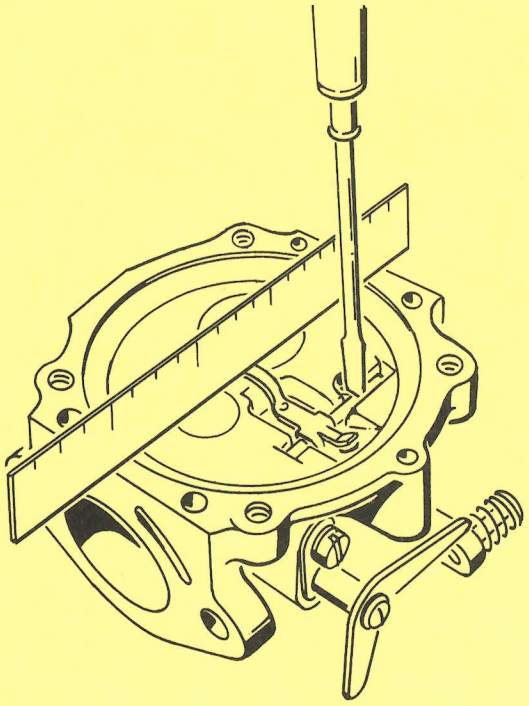
10. Reinstall inlet valve lever, fulcrum pin and spring, but NOT the retaining screw.

NOTE: The curved hook end on the inlet valve lever must be flush with, or .005" below the diaphragm mounting face. If this condition does not exist, adjustment must be made by bending the lever in the required direction, up or down, at the point where the curved hook end joins the straight section, as follows:

a) Exert pressure on the inlet lever pivot pin, at retaining screw contact point so that pin is bottomed in its slot with spring and ball in place.

b) With a straight edge across carburetor body, check lever height and note required direction of adjustment if any is necessary.

c) Make adjustment with needle nosed pliers.



11. When inlet lever hook is correctly adjusted, reinstall retaining screw.

12. Reassemble carburetor and reinstall in engine.

NOTE: Very few of the bad ball seats were shipped to the field for service replacements. Any ball seats, received before August 20, 1958, may be defective and should not be used.