



# THE MODEL T FORD

ITS REPAIR,  
SERVICE, AND  
RESTORATION

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## The Holley NH Carburetor Full Flow Float Valve, Needle, and Seat

Your Technical Editor recently used a new product that improves the gasoline flow to the Holley NH carburetor, for best performance. The improvement is a larger bore diameter seat, capable of utilizing full flow of fuel as the engine demands.

This Full Flow Float Valve\* comes complete with the larger diameter flow needle seat, a Viton tipped needle, and special lead washer. These new pieces replace the standard Ford p/n 6220 inlet needle, p/n 6212 float valve seat, and p/n 6219 seat gasket, which is a standard brittle fiber washer. The new seat and matching new needle provide a larger diameter inlet for the gasoline to the bowl (photo 1), allowing the NH carburetor to provide full fuel demand as the engine requires.

Modern reproduction float valve seats reduce the original gasoline flow area by 56% of the original flow area. The relatively small reduction in diameter has a large corresponding reduction in flow, which presents a massive restriction to fuel flow. A fuller tank of fuel is often required to 'push' the fuel into the carburetor on hills, and often cannot keep up with fuel that is needed when driving on steep inclines or at higher speeds.

Lack of fuel flow caused by poor designs of modern reproductions has resulted in owners adding fuel pumps or larger fuel lines, but the fuel flow doesn't improve, as the fuel is trying to squeeze through a float valve that is too restrictive. Restrictive float valves may cause other fuel delivery problems, among them the generally speculated 'vapor-lock'.

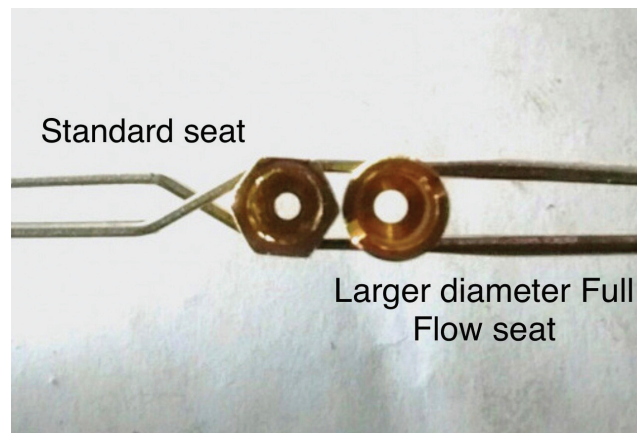
This Full Flow Float Valve (photo 2) relieves this restriction, allows the T to regain its designed performance, and extends that performance to today's more rigorous demands of tours and fun driving.

A new insertion tool (photo 3) for placing the new seat is also available, which simplifies the removal of the old seat and installation of the new seat.

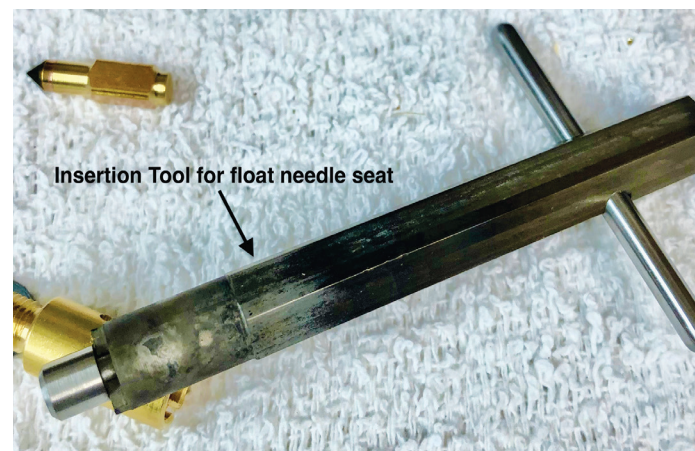


Full Flow Float Needle and Seat with lead washer

1) Needle and seat



2) Comparison of sizes



3) Insertion tool



4) The hex-shape Grose seat (upper left) removed, along with its stiff red fiber gasket. New package of Full Flow pieces ready to fit to the Holley NH carburetor.



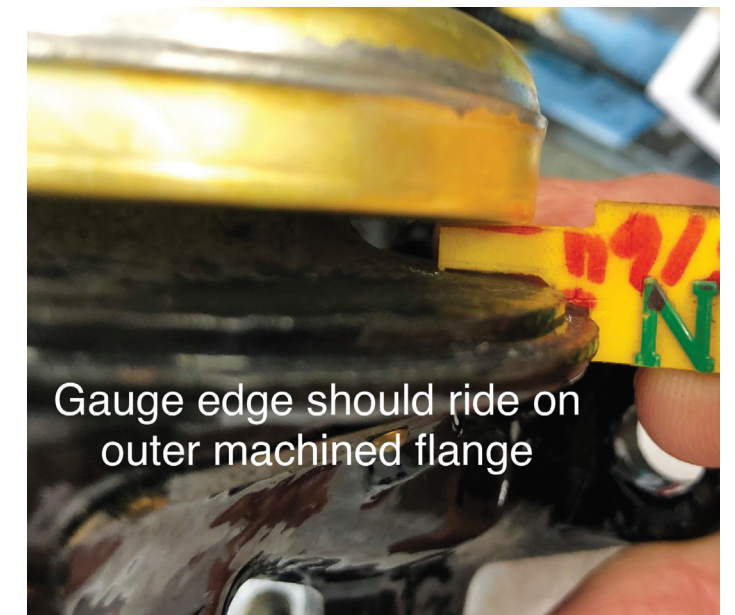
5) Placing the new seat with the insertion tool



6) Seat installed

In this test case, a sticking Grose jet ball valve seat was replaced, resulting in a drip-less carburetor and performance gain at speed (photo 4). (Important note: the new Full Flow Float Valve seals very nicely, but is not impervious to contaminants/dirt or additives to fuel that can prevent a leak-proof seal at the float valve over time. All gravity-fed fuel systems must have an independent and positive shut-off in the fuel line to the carburetor to avoid dangerous fuel spillage when the T is stored or unoccupied.)

Using the new insertion tool, the new seat with a soft lead washer is easily placed in the carburetor (photo 5). The lead washer provides a leak-proof seal, as it readily conforms to the cast iron body of the carburetor.



7) Simple fabricated plastic gauge to set float height

Seat is now installed (photo 6), ready for the needle to be placed. Then the float is assembled, and the float tab over the needle is bent slightly to be set in accordance with *Ford Service Bulletin* float height suggestion of 15/64" (5.95 mm), measured from the machined flange of the carburetor body to the top of the float (photo 7).

\*Available from:  
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