

The Zenith Side Bowl!

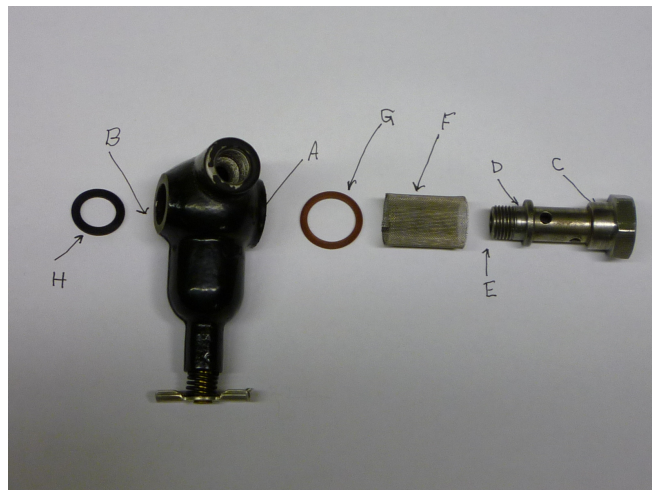
by Tom Endy

By May of 1931 several states had decreed that the Model A Ford can no longer be delivered with the fuel shut off valve located inside the passenger compartment, it must be located under the hood. Thus became what is known as the indented firewall. The fuel shut off valve was located in an indentation on the passenger side of the firewall. The Zenith carburetor was also changed. The fuel filter was no longer integral to the carburetor, but was a separate casting mounted to the side of the bowl. Hence the name side bowl carburetor. The side bowl carburetor also uses a different shaped fuel line.

The filter bowl assembly casting attaches to the carburetor using a large machined bolt and two gaskets and is prone to leak. This is especially true if the filter bowl assembly is a reproduction. Care should be taken during machining of the assembly, and this is not always done.

The two sides of the filter bowl assembly should not only be flat, but also parallel to each other. The bolt that attaches the assembly and holds the filter screen should have the collar under the bolt head perpendicularly machined. The length of the bolt is also critical. If the threaded end is too long it will bottom out before the gaskets are tight. The screen collar on the bolt at the carburetor end can also be too long and bottom out inside the filter bowl casting. The screen itself can also be too long and cause interference. All these areas should be addressed when trying to solve a leakage problem at the filter bowl assembly.

The boss on the carburetor itself also has to be flat and parallel to the filter assembly. If not, the gasket will not seal off. The side bowl filter assembly as attached to the carburetor relies entirely on the two gaskets to seal off any fuel leak. The fuel line that attaches to the filter bowl, though a different shape, uses the standard ferrule arrangement to seal off a fuel leak.



Side bowl filter assembly

The two surfaces at "A" and "B" must be flat and parallel to each other. The surface at "C" (under the head of the hex) must be flat and perpendicular to the length of the bolt. The flange at "D" must not be excessively long such that it binds against the inside of the casting. The length of the threads at "E" should not be excessively long such that they bottom out inside the carburetor boss. The screen at "F" should not be excessively long such that it binds inside the casting. The gaskets at "G" and "H" are what seals off any fuel leak.



Side bowl carburetor top casting

The carburetor boss at "X" must be flat and parallel to the filter bowl casting. The gasket at "H" is what seals against it.