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Subject: Carburetor Exam

10/24/2023

Quality Aircraft Accessories has performed a post incident exam on the following carburetor:

Marvel Schebler
Model: MA-4-5
P/N: 10-5034
S/N: BU-14-1047

On initial exam of the outside of the carb, there were obvious fuel stains around the outside of the fuel bowl at and below the parting surface. There was also fuel staining in the throat of the bowl below the main fuel nozzle. After normal overhaul/repair, the 6 bolts that hold the throttle body to the bowl, are secured using a lock washer with tabs that are bent up to hold the bolt secure. This carburetor had one bolt where the lock tabs were not bent up. Also, all 6 bolts were loose enough to move with my fingers. Also noted externally, was the economizer screw was not safety wired as per the manual.

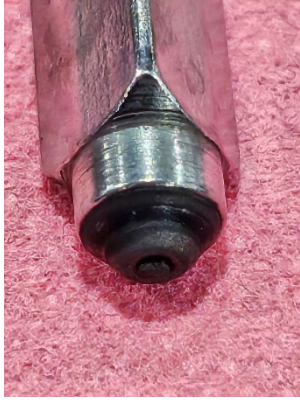
After removing the 6 bolts and separating the two halves, I examined the float assembly. The float setting was not correct. It should be set at 13/64ths between the pontoon and the parting surface. I could not get a 13/64ths drill shank in between the pontoon and the parting surface. Indicating that the float was set too rich. The float was a brass float indicating that Service Bulletin SB-2 Revision 3 was never complied with. No foreign debris was found inside the carb bowl. There was significant wear of the tip of the float needle which would cause the needle to not seat properly when the proper fuel level was reached.

I have included some pictures below to help clarify my findings. The carburetor was not bench tested before disassembling due to the fact of the loose bolts and the only thing that the bench test would show is the fuel leakage which is already confirmed by the fuel stains.

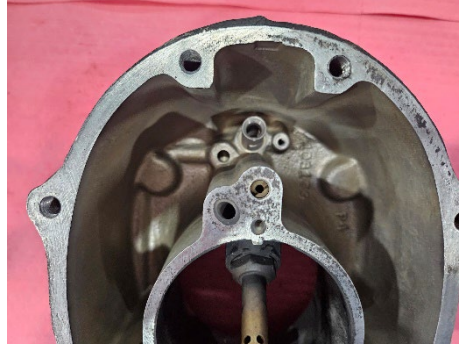
Please feel free to contact me at any time if you have any questions.

Respectfully

Quality Manager
Quality Aircraft Accessories



Worn Float Needle



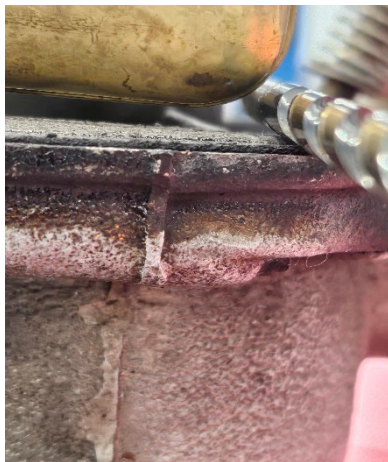
No debris in fuel bowl.



Fuel Staining



Lock tabs not bent and bolts loose.



Float level set rich.