

8/10/2018 EA-FSDO-39 ASI Jerry L. Toms

Opened the Box containing a carburetor from the NTSB, Stephen Stein labeled WPR18LA056.

Evidence Control Number WPR18LA056-NC-001

Chain of Custody document indicates this was Originally packaged 3/22/2018; and sent to the Greensboro FSDO in North Carolina for Evaluation at the Marvel-Schebler Facility, to be witnessed by FAA Principal Airworthiness Inspector, Jerry L Toms.

Chain of Custody Form:

Released by NTSB IIC and released to Jerry L Toms- FAA on 3/22/2018

Box opened at the facility of Marvel-Schebler, Gibsonville, NC on 8/10/2018 by Jerry L Toms

Participants at Marvel-Schebler: Mike Wentland and Jeff Rich

Box opened on 8/10/2018 at 7:15 am Eastern Time Zone, by Jerry L. Toms- FAA

Removed shredded confetti type packing. Unwrapped plastic and bubble wrap packing.

Visually inspected exterior for conditions, contaminants or obvious damage.

Marvel Schebler Technicians / Inspectors named above, performed remainder of evaluation sequence as witnessed by Jerry L Toms, ASI, FAA Greensboro Office EA39.

Moved accelerator pump and throttle and mixture mechanical controls on carburetor feeling no tension in each direction. No drag or tension existed when accelerator pump was moved through its travel.

Casting at top of carburetor, in direction of intake manifold, fractured across entire cross section, but damage was above the attachment flange at the top of the carburetor body. Removed this broken section and bagged it with attachment hardware and gasket.



Removed Air box and filter. Airbox damage: Deformed, requiring technician to bend distorted metal to access attachment hardware and remove the airbox from the carburetor. ID plate seemed unreadable prior to efforts at cleaning by Inspector Toms: MA-3 SPA, 10-4894, BE 10 8890, FAA-PMA.



FLOW BENCH TESTING

Accelerator pump: not functional. No tension throughout control travel.

With fuel flow provided to carburetor, the Float and needle valve sealed with no fuel leaks.

Drain was cut off.

Flow Bench Test: compared to master settings for MA-3 carburetor

Determined: NO IDLE CUTOFF; accelerator pump passages plugged with contaminants.

Accelerator pump was not able to deliver fuel to throat of throttle body

With flow bench pressure, fuel locked up solid. No outlet evidenced.

Experienced fuel blockage when airflow was present in throttle and venture.

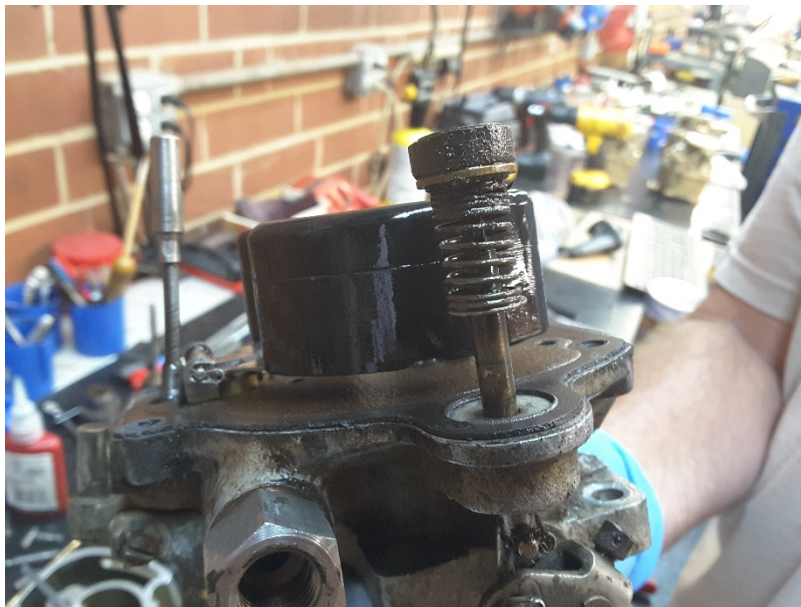
No visible particles seen during flood testing.

Contaminants found in accelerator pump check valve.

DISASSEMBLY OF CARBURETOR

Removed assembly hardware screws etc., visually inspected for physical damage: none found

Debris existed within the carburetor in the float bowl area, in the area of the accelerator pump check valve, and in the output area of the Venturi airflow outputs.



**FLOW BENCH PRESSURE TESTING**

Using comparison to master carburetor of this make and model, fuel and airflows were checked at the setting points on their document used for recording these flows.

Marvel-Schebler performed the flow checks and completion of the Flow test document: They have a standard performance document used in conjunction with these flow measurements.

Jerry L.Toms, ASI, EA-FSDO-39