



**Marvel-Schebler® Aircraft
Carburetors, LLC**

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Service Bulletin: SB-17

Original Date: August 12th, 2010

SUBJECT – BODY TO BOWL FUEL LEAKS

1. **Applicability:** MA-3™, MA-3A™, MA-3PA™, MA-3SPA™, MA-4™, MA-4SPA™, MA-4-5™, MA-5™, MA-5AA™, MA-6™, and MA-6AA™ UPDRAFT float carburetors manufactured by Marvel-Schebler® Aircraft Carburetors LLC (“Marvel-Schebler”) and its predecessors in interest Volare Carburetors, Precision Airmotive Corporation, Facet Aerospace Products Company, and Borg Warner. (Hereinafter “Marvel-Schebler® Float Carburetors”).
2. **Reason:** Marvel-Schebler® is issuing this service bulletin to make engine manufacturers, mechanics, over-haulers, owners, and operators of Marvel-Schebler® Float Carburetors aware that instances of fuel leakage from the body to bowl joint have been reported. This service bulletin replaces and supersedes Precision Airmotive service bulletin MSA-14 dated 2/7/08. Warning: Failure to follow this advice may result in engine malfunction, damage, injury, or death.
3. **Background:** Instances have been reported of leakage past the gasket between the bowl and throttle body of the carburetor evidenced by fuel stains in the area of the leak. Leakage of this type may be accompanied by loose bowl to throttle body screws.
4. **Time of Compliance:** Within the next 50 hours of engine operation and at each 100 hours of engine operation thereafter or anytime fuel stains are evident on the carburetors external surfaces.
5. **Compliance:**
 - a) Check the carburetor for evidence of fuel stains on the outside of the bowl along the throttle body / bowl parting line.
 - b) Check the bowl for looseness relative to the throttle body by attempting to wiggle or move the bowl relative to the throttle body by hand.



c) Check each throttle body to bowl screw and lock-tab washer for any sign of looseness by attempting to wiggle the screw head and lock tab washer with your fingers.

Warning: Do not turn the screws with a tool (a screwdriver or wrench) when checking them it for looseness. Doing so with the lock-tab washers engaged against the screw may bend the lock tabs and compromise the lock-tab washers' effectiveness.

d) If there is evidence of fuel stains, looseness of the bowl relative to the throttle body, or loose throttle body to bowl screws, an appropriately rated mechanic, engineer, or repair station must: Remove the carburetor from the engine. In accordance with the appropriate carburetor service manual; remove the bowl from the throttle body. Inspect the threaded holes in the bowl and screws to be sure the threads are serviceable. Install a new body to bowl gasket. Install new lock tab washers. Install and torque the screws in accordance with appropriate specifications. Test the carburetor in accordance with instructions in the appropriate service manual. Secure the lock tab washers by bending the tabs.

e) Reinstall the carburetor on the engine and rig it in accordance with the applicable engine and airframe service manual instructions.

Note: Excessive engine vibration may cause the bowl to shake loose from the throttle body. Therefore, it is prudent to inspect the engine installation for damaged or worn motor mounts and/or evidence of an out of balance condition and if such a condition(s) is identified rectify it before returning the aircraft to service in order to prevent loosening of the bowl in the future.

f) Make appropriate logbook entry showing compliance with this service bulletin.

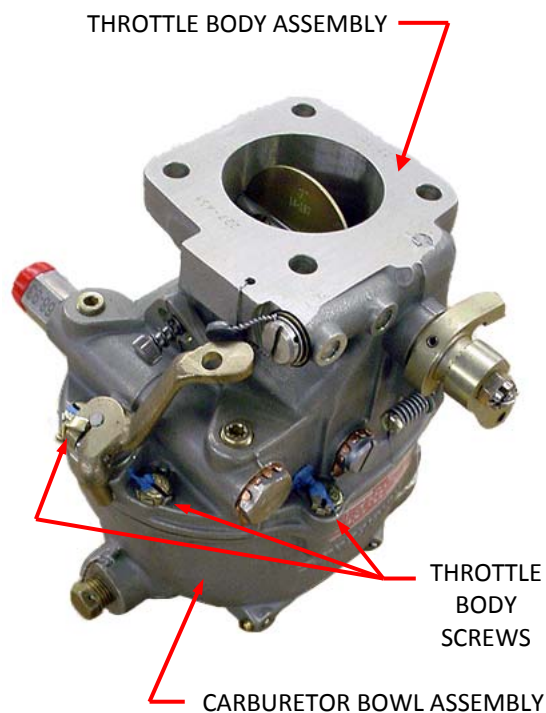
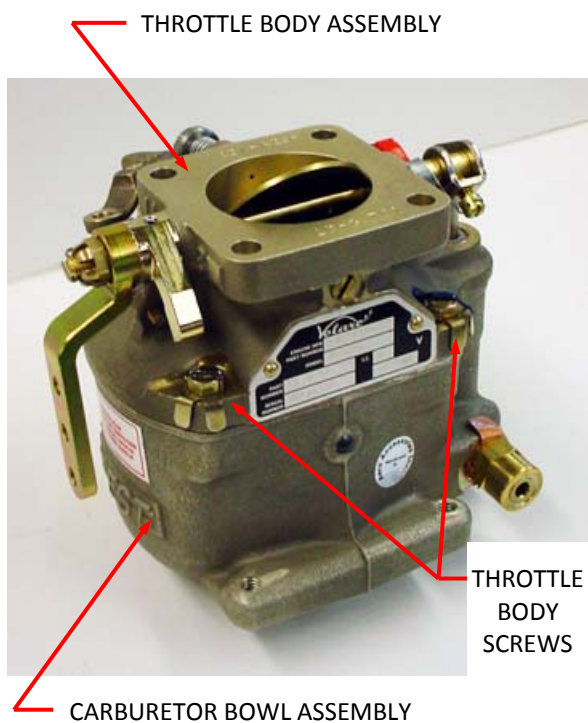
6. Voiding of Warranty and Waiver of Liability: An owner's /operator's failure to inspect and where necessary replace the throttle body to bowl gasket and lock tab washers in accordance with this bulletin, or operation of a carburetor which is non-compliant to the requirements set forth in this bulletin, or operation of a carburetor in which other than genuine Marvel-Schebler® approved parts are installed, **voids any otherwise applicable warranty and constitutes a complete and total waiver** to the extent permitted by law of any and all rights the owner, operator and/or service facility or repairer may have had to hold Marvel-Schebler® responsible or liable for the malfunction or failure of such an aviation carburetor. The owner/operator and/or service facility or repairer that makes an unauthorized repair or modification that is non-compliant with this service bulletin to service shall bear the sole responsibility and full liability for any **damages of whatever nature, injury, or death** arising from any malfunction or failure of such a non-compliant aviation carburetor.

Distributed by:





7. **Safety First:** Marvel-Schebler® Aircraft Carburetors, LLC is a customer-service oriented company committed to technical innovation in pursuit of aviation safety. While Marvel-Schebler® has no authority to compel owners to act responsibly and take prudent action to insure their own safety and the safety of others, Marvel-Schebler® believes compliance with this service bulletin is important and will help to insure better maintained and better performing products. Marvel-Schebler® strongly warns owners of inherent risks involved in operating an aircraft with a leaking carburetor and strongly encourages owners to comply with this service bulletin.



- Models MA-3™, MA-3A™, MA-3PA™, MA-3SPA™, MA-4™, and MA-4SPA™ have four (4) screws.
- Models MA-4-5™, MA-5™, MA-4-5AA™, MA-6™, and MA-6AA™ have six (6) screws.