



Volare' Carburetors, LLC
125 Piedmont Avenue
Gibsonville, N.C. 27249, USA

Service Bulletin: SB-11
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SUBJECT – UNAPPROVED REPAIR PRACTICE

1. **Applicability:** *All float carburetors manufactured by Volare Carburetors LLC (“Volare”), and its predecessors Precision Airmotive Corporation, Facet Aerospace Products Company, and Marvel-Schebler (Borg Warner) (hereinafter “Volare”)*
2. **Reason:** Volare is issuing this Service Bulletin to help owners, operators, over-haulers, and repairers of Volare Float Carburetors become aware of an unapproved repair practice.
3. **Background:** During tear down inspection of carburetors at the factory service center, numerous examples of improper repairs are being found. The areas around the top and bottom of the mixture control shaft bearing bore are peened. A number of such cases have been observed. The practice appears to be prevalent at one repair station, at least.

It is believed that the object of the peening is to reduce clearance between the mixture control shaft and its bearing bore. However, such repairs are unauthorized because of the adverse consequences described below.

Fact: Peening the area around the bearing bore causes the mixture shaft loads to bear on small, upset metal projections which will wear away quickly. Thus, the repair will be short lived. Additionally, an airtight seal between the mixture control shaft and the throttle body is imperative. If the seal is compromised and outside (ambient) air enters the float bowl, an excessively rich fuel/air mixture will occur. The rough surface can prevent the necessary airtight seal.

Examples of unauthorized peening of the mixture shaft bore are shown in Figures 1 & 2 on page 2, (Fig. 1 bottom view, Fig. 2 top view). Figure 3 shows a properly repaired mixture shaft bore. The factory can make such repairs. If the mixture shaft bearing bore has inadequate metal remaining, contact Volare' to have the bore properly repaired.

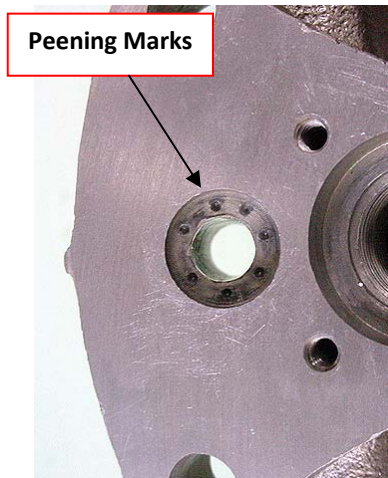


Figure 1: Peened Example

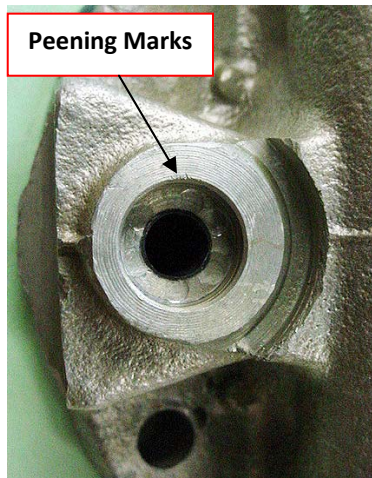


Figure 2: Peened Example



Figure 3: Proper Bushed Repair

4. **Compliance:** At the next carburetor disassembly or sooner if an excessively rich mixture is experienced:
 - a. Examine the mixture shaft bearing bore and area around it. If unauthorized repairs have been accomplished, the mixture shaft bearing bore is oversized, or the sealing surfaces are damaged, send the carburetor to Volare for repair.
5. **Voiding of Warranty and Waiver of Liability:** An owner's/operator's failure to inspect and where necessary replace or repair a carburetor body in accordance with this bulletin, or operation of a carburetor which is non-compliant with this bulletin, or operation of a carburetor in which other than genuine Volare 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 Volare 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 or returns a carburetor 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.
6. **Safety First:** Volare is a customer-service oriented company committed to technical innovation in pursuit of aviation safety. While Volare has no authority to compel owners to act responsibly and take prudent action to insure their own safety and the safety of others, Volare believes compliance with this Service Bulletin is important to protect against failures with unacceptable consequences. Volare strongly warns owners of the inherent risks involved in operating an airplane with an improperly repaired/modified carburetor and strongly encourages owners to comply with this Service Bulletin.