



Power Systems

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Service Letter

Letter No. 031

Issue Date: July 15, 2009

MA-4-5, MA-5 AND MA-6 SERIES ACCELERATOR PUMP LEVER ASSEMBLIES

INTRODUCTION:

Volare' Carburetors, LLC (formerly Precision Airmotive/ Facet/ Marvel Schebler/ Borg Warner) issued Service Bulletin SB-9 on June 17, 2009, the subject of which is "MA-4-5, MA-5 and MA-6 Accelerator Pump Lever Assemblies" regarding the inspection and examination thereof. The service bulletin lists several conditions where the Accelerator Pump Lever is poorly assembled to the extent that it does not meet Volare's quality standards. The Volare' Service Bulletin continues to describe in detail the exact condition of the suspect lever assemblies. However, in units overhauled/repared by Kelly Aerospace Power Systems, the Accelerator Pump Lever assembly is examined for wear and if necessary the cotter key is removed from the post and the "D" ring arm will be replaced with an FAA/PMA approved arm of KAPS design. The arm containing the pivot post, the focus of Fig. 5 of Volare' SB-9, will be discarded and replaced with an original (OE) part should any discrepancy be noted. ***KAPS never repairs this OE part.*** For this reason, ***the Volare' Service Bulletin SB-9 is not applicable to MA-4-5, MA-5 and MA-6 carburetors overhauled/repared by KAPS at any time.***

Kelly Aerospace Power Systems desires that Volare's service bulletin SB-9 be complied with to enhance safety in those aircraft or rotorcraft that use a Precision Airmotive/ Facet/ Marvel Schebler/ Borg Warner MA-4-5, MA-5 and MA-6 carburetor ***only*** if the service history shows that the ***complete*** Accelerator Pump Lever Assembly on MA-4-5, MA-5 and MA-6 has been replaced or if the overhaul/repair history is unknown.

This service letter is intended to reduce confusion for customers utilizing KAPS overhauled MA-4-5, MA-5 and MA-6 carburetors. If you have a MA-4-5, MA-5, or MA-6 carburetor with a clear history of overhaul/repair by Kelly Aerospace Power Systems, no action need be taken regarding Volare's Service Bulletin SB-9.

COMPLIANCE:

At the next regularly scheduled inspection not to exceed 100 hours time in service. ***Compliance with this Service Letter for KAPS overhauled carburetors, renders Volare' Service Bulletin SB-9 not applicable.***

EFFECTIVITY:

All MA-4-5, MA-5 and MA-6 carburetors overhauled/repared at any time by Kelly Aerospace Power Systems.

All questions, information, or requests pertaining to flight safety service bulletin SB-9 must be forwarded to Volare' Carburetors, LLC, Product Support Dept. (336) 449-5054.

Questions regarding this service letter? Contact KAPS Customer Service at (334) 286-8551.

PROCEDURE:

CAUTION:

The removal of an airworthy part from a complete installation without symptom or cause may present a hazard to owners, operators, and property. Beyond normal maintenance, NEVER open or disturb the carburetor without documented cause.

NOTE:

Any repair or overhaul activity may be accomplished using Kelly Aerospace Power Systems FAA/PMA approved components and spare parts. All KAPS FAA/PMA approved parts are interchangeable with Precision Airmotive/ Facet/ Marvel Schebler/ Borg Warner original parts.

1. Observe Volare' Carburetors SB-9 in it's entirety and determine if you are affected, the appropriate compliance time, and what may be your course of action. (*Noted as Attachment A of this service letter.*)
2. Examine the aircraft or engine logbook entries or other aircraft documentation to ascertain whether your carburetor has been overhauled by KAPS. If positive identification is made, it is advisable to make an appropriate logbook entry stating that "Volare' Carburetors, LLC Service Bulletin SB-9 is not applicable, refer to Kelly Service Letter 31.
3. If positive identification can not be made, comply with the intent of Volare' Carburetors Service Bulletin SB-9 by following the instructions therein. Assure a proper logbook entry of compliance is made per the instructions in the Volare' Service Bulletin.

For reference, please see the Volare' Carburetors, LLC Service Bulletin SB-9 included as "Attachment A" to this service letter. ***For information concerning the use of KAPS FAA/PMA parts refer to KAPS Service Letter 028 and FAA SAIB NE-08-40 dated Aug. 8, 2008.***

WARRANTY STATEMENT:

No warranty or other participation is applicable to this service publication. Acknowledgment and understanding of this service letter is fully the responsibility of the service facility and/or the owner of the affected product. Issuance of this service letter in no way constitutes an implied or expressed warranty of any kind.

This publication does not imply or state any responsibility for the workmanship of any person or entity performing work or maintenance on any model carburetor, fuel system, engine, or aircraft. ***The proper use of FAA/PMA approved airworthy parts in no way constitutes a total waiver of liability for any party.*** All parties retain liability, including product liability to the extent of their responsibilities under applicable law.

CONTACT INFORMATION:

If you have any questions concerning this service information letter, please contact Kelly Aerospace Energy Systems Technical Support at 888-461-6077. Or write:

**Kelly Aerospace Product Support
2900 Selma Highway
Montgomery, AL 36108, USA**

ATTACHMENT A (SL 031)



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

Service Bulletin: SB-9
Revision: Original
Date: June 17th, 2009

SUBJECT – MA-4-5, MA-5 & MA-6 Series Accelerator Pump Lever Assemblies

1. **Applicability:** MA-4-5, MA-5 and MA-6 series float carburetors manufactured by Volare Carburetors LLC (“Volare”) and its predecessors: Precision Airmotive Corporation, Facet Aerospace Products Company, and Marvel-Schebler (Borg Warner) (all collectively referred to hereafter as “Volare Float Carburetors”).
2. **Reason:** Volare is issuing this SB to help owners, operators, over-haulers, and repairers, of Volare Float Carburetors identify accelerator pump lever assemblies that do not meet Volare’s quality standards for normal production parts.
3. **Background:** During teardown inspection of carburetors at the factory service center, Volare has found a number of accelerator pump lever assemblies that do not meet Volare’s quality standards for normal production parts. Although the part numbers on the genuine and suspect levers are the same, Volare did not manufacture these parts. The number affixed to the suspect parts appears without the requisite suffix, prefix, or other identification mark indicating that the parts were made by a manufacturer other than Volare. Volare is concerned that the use of such accelerator pump lever assemblies could result in possible adverse consequences such as described below;
 - a. A fragment (tag) of a cracked rivet could break off enter fuel passageways, and clog jets or fall into the accelerator pump chamber causing damage to the pump and body, see Fig. 1.
 - b. A poorly formed or cracked fastener could fail, causing the linkage to become unfastened and possibly causing the throttle or mixture control to jam, see Fig. 1.

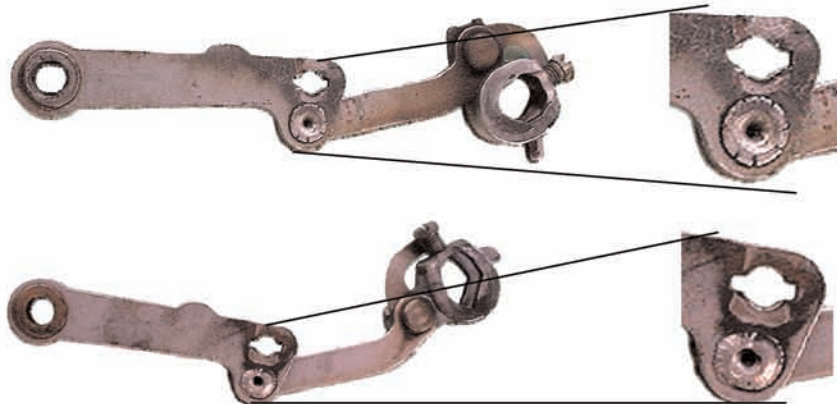


FIGURE 1 Suspect Parts

ATTACHMENT A (SL 031)

4. **Compliance:** WITHIN 100 HOURS OF OPERATION OR AT THE NEXT ANNUAL INSPECTION after the date of this Service Bulletin, which ever comes first, Volare recommends that levers having poorly formed and/or cracked fasteners (such as those shown in the accompanying photographs) be replaced.

5. **Parts identification:**

- a. The part number characters on genuine Volare levers are 1/8 inch tall. Rivet heads are uniformly made, flush or semi-flush, and do not have fractured tags.

- i. Volare pump levers bear stamped part numbers 1/8" tall, and;



FIGURE 2

- ii. Volare fastener heads are flush or semi-flush, are uniformly made, are not overdriven, and do not have fractured tags.



FIGURE 3

- b. Suspect parts have the following characteristics:

- i. Part number characters are 3/32" inches tall, and;

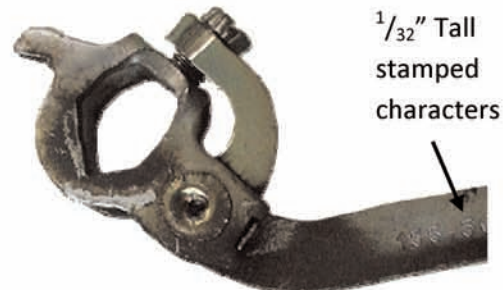


FIGURE 4

- ii. Fastener heads splay out over a large area, are not uniformly upset, are overdriven, often have multiple cracks, and may display fracture tags.



FIGURE 5

ATTACHMENT A (SL 031)

6. **Instructions:** Examine the accelerator pump levers to determine that the fasteners are properly upset as shown in Fig. 3 and that the workmanship associated with them is of the highest quality. Replace any parts having overdriven or cracked fasteners with serviceable parts, see Figures 4 & 5.
7. **Voiding of Warranty and Waiver of Liability:** Any owners, operators, over-haulers, and repairers, of Volare Float Carburetors who fail to inspect and where necessary replace or repair a carburetor in accordance with this bulletin, or permit operation of a carburetor which is non-compliant with this bulletin, or permit operation of a carburetor in which other than genuine Volare-approved parts are installed, **voids any otherwise applicable warranty and such actions constitute 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 returns a carburetor to service that is non-compliant with this service bulletin 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.
8. **Safety First:** 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.