

Marvel-Schebler Aircraft Carburetors LLC

125 Piedmont Avenue
Gibsonville, N.C. 27249, USA
Phone: 336-446-0002 // 0005
Fax: 336-446-0007
Email: customerservice@msacarbs.com
Website: www.msacarbs.com

Service Bulletin: SB-20
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SUBJECT: USE OF INCOMPATIBLE CLIP AND FLOAT CAN AFFECT FLOAT OPERATION

1. **Applicability:** HA-6™ carburetors (commonly referred to as “Marvel-Schebler®” carburetors) manufactured by Marvel Schebler Aircraft Carburetors LLC (formerly Volare Carburetors, LLC), Precision Airmotive Corporation, Zenith, Facet Aerospace Products, and Borg-Warner/Marvel-Schebler, and, for brevity, referred to hereinafter as MSA carburetors.
2. **Caution:** AVStar has switched data tags on some MSA carburetors with tags that show the name AVStar, thus creating confusion and obscuring the identity of the actual manufacturer of the carburetor; *See* MSA SB-16. MSA HA-6™ carburetors bearing AVStar data tags ARE AFFECTED BY THIS BULLETIN as are any other MSA HA-6™ carburetors containing the affected parts regardless of the name on the data tag. If you cannot determine whether your carburetor is affected, call MSA at 336-446-0002 for assistance.
3. **Reasons:**
 - a. TO PROVIDE CLEAR AND ADEQUATE WARNING TO OPERATORS AND USERS OF MSA HA-6™ CARBURETORS OF COMBINATIONS OF PARTS IN THAT, IF NOT REMOVED, MIGHT LEAD TO PARTIAL OR COMPLETE LOSS OF ENGINE POWER AND SERIOUS INJURY OR DEATH. **NOTE: MSA did not install these parts and is not responsible for this problem.** These combinations of parts are likely to be found in MSA HA-6™ carburetors serviced by AVStar, in carburetors installed on factory overhauled Lycoming engines, and in carburetors that have had AVStar float kits installed in them.
 - b. To remove from MSA HA-6™ carburetors AVStar floats part number AV30-768 and AVStar clips part number AV29-182 or MSA clips part number 29-182.

- c. To prevent carburetors in inventory that contain the float and clip combinations set out in Paragraph 3, b. of this bulletin from entering service until the condition is corrected.

4. **Background:** The clips affected by this bulletin can wear into AVStar float frames and cause a notch to form; *See* Photo 1. **WARNING:** NEVER use a AV30-768 float with a flat clip AV29-182 or MSA 29-182 in MSA HA-6™ carburetors; *See* Photo 2. MSA has never approved the use of the combination of a 30-768 type float and a 29-182 type clip in its carburetors. Use MSA clip 29-182 ONLY with float part number 30-860 in HA-6™ carburetors; *See* Photo 3.

5. **Time of Compliance:** Within the next 30 days after the issue date of this service bulletin or 25 hours of operation, whichever comes first, comply with the instructions in Paragraph 6, a. through c., as applicable, of this bulletin. Do not enter carburetors in inventory into service unless this bulletin is complied with. If any engine anomaly occurs during run up or at any other time including, but not limited to, hard starting, unsteady acceleration, momentary roughness, surging power, un-commanded engine shutdown, high EGT or CHT, or if any other sign of carburetor malfunction is noted, do not fly the airplane and, if in flight, land as soon as safely possible. Do not fly the airplane again until this service bulletin is complied with.

6. **Compliance:**
 - a. Remove AV30-768 floats and AV-182 clips (or MSA 29-182 clips where installed in conjunction with an AV30-768 float) from MSA HA-6™ carburetors.
 - b. Install MSA float 30-860 and clip 29-182. Obliterate the letters “MF” (if they appear) on the data tag with a round nose punch. Stamp the letters “CC” on the data tag to indicate compliance with this service bulletin.
 - c. Perform all carburetor work in accordance with MSA Carburetor Service Manual MSACSM Rev-0, Chg-0 date 08/19/11 for HA-6™ series carburetors and MSA Service Bulletins, www.msacarbs.com. See MSA service bulletin number SB-2 for additional float information.

NO WARRANTY: Any MSA warranty that might have otherwise been applicable to your MSA carburetor, including warranties expressed or implied, are void for any MSA carburetors containing parts not manufactured by MSA and/or not maintained in accordance with MSA maintenance procedures and/or for any carburetors bearing a data tag marked AVStar.

WARNING: AVStar marks its carburetors with MSA model designations even though the design of AVStar carburetors is different from MSA designs. Do not use MSA maintenance data (including Precision or its predecessors' maintenance data) to service AVStar carburetors even if the model designations on the carburetors are the same as MSA model designations. Do not use MSA parts lists to select parts for use in AVStar carburetors. Do not use MSA parts in AVStar carburetors. MSA FAA-PMA parts are not approved for use in AVStar carburetors.

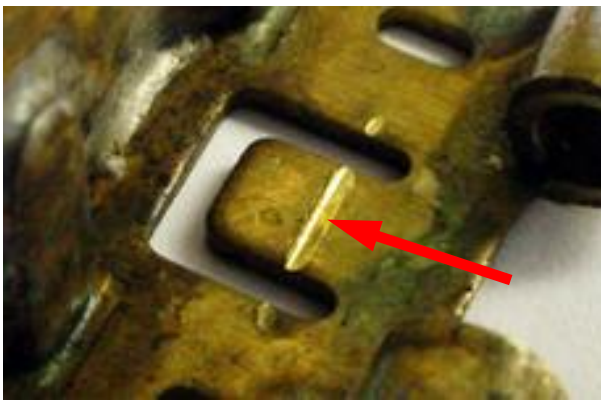


PHOTO 1
DAMAGE TO FLOAT FRAME CAUSED
BY FLAT CLIP.



PHOTO 2
DO NOT USE THIS COMBINATION
29-182 EXEMPLAR CLIP SHOWN.
AV29-182 IS SIMILAR



PHOTO 3
30-862 FLOAT AND 29-182 CLIP
CORRECT COMBINATION
NOTE: DIFFERENCE IN FRAME GEOMETRY