

## Marvel-Schebler Aircraft Carburetors LLC

2208 Air Park Drive Burlington, N.C. 27215, USA Phone: 336-446-0002 Email: customerservice@msacarbs.com Website: www.msacarbs.com Service Bulletin: SB-26 Rev-O

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## SUBJECT: ACCELERATOR PUMP DISCHARGE CHECK VALVE for MA-4-5<sup>®</sup>, MA-4-5AA<sup>®</sup>, MA-5<sup>®</sup> and MA-6AA<sup>®</sup> SERIES CARBURETORS

- 1. <u>Applicability</u>: This service bulletin applies to MA-4-5<sup>®</sup>, MA-4-5AA<sup>®</sup>, MA-5<sup>®</sup> and MA-6AA<sup>®</sup> carburetors made by Marvel-Schebler Aircraft Carburetors, LLC and to carburetors of the same models manufactured by Marvel Schebler Company, Borg-Warner, Facet, Precision Airmotive, and Volare' (collectively referred to herein as "MSA carburetors").
- 2. <u>Reason</u>: In November 2017, the appearance of the components making up the accelerator pump check valve changed.

The part number for the later style plug remains the same, 15-A84, although its appearance is distinctly different from the earlier configuration. Needles, part numbers 34-72 (weighted) and 34-91 (spring-loaded) are replaced by rubber tipped needle part number 34-214. The spring 24-A115, previously used with the spring-loaded needle (34-91) is replaced by spring part number 24-C50. See Figures 1 thru 3.

Figure 1 shows early style weighted check valve components. Figure 2 shows the early style spring loaded check valve components. Figure 3 shows the components used in the latest style check valve.

ANY OF THE STYLES CAN BE USED – BUT THE PARTS OF ONE STYLE MAY NOT BE MIXED WITH THE PARTS OF ANY OTHER STYLE.

3. Installation instructions for the late style check valve are generally the same as for the previous styles EXCEPT – prior to installing the new needle, part number 34-214, check that a .159-inch diameter gage pin will enter the hole in the carburetor bowl to a depth of at least 1.0 inch below the bowl gasket surface. The pin must drop into hole under its own weight, see Figure 4.





- **4.** If the gage pin DOES NOT GO FREELY INTO THE HOLE, turn the carburetor bowl upside down so that any chips will fall out of the hole and use a TEE handle and flat tipped .159/.160 diameter ream to clean up the hole. See Figure 5. Turn the ream BY HAND. Do not use a drill or other power tool to turn the ream. Make sure that the hole is clean and free of debris.
- 5. When the hole accepts the gage pin to a depth of at least one inch, install the 34-214 needle, the 24-C50 spring, and the 15-A84 plug (late style) as shown in Figure 3. Tighten the plug to 20-25-inch pounds of torque.
- **6.** Serviceable or new early style components, in sets, may be used until supplies are exhausted.

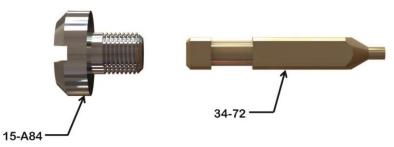


Figure 1, weighted check valve components.

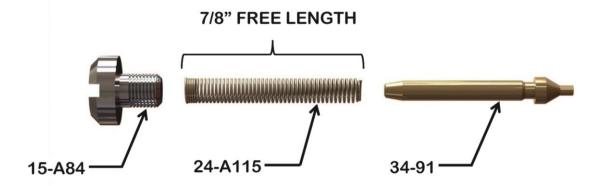


Figure 2, spring loaded check valve components. (spring free length 7/8", diameter .128)





## 7/16" FREE LENGTH

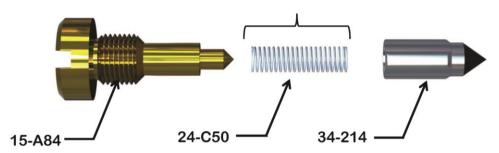


Figure 3, late style check valve components. (spring free length 7/16", diameter .098)

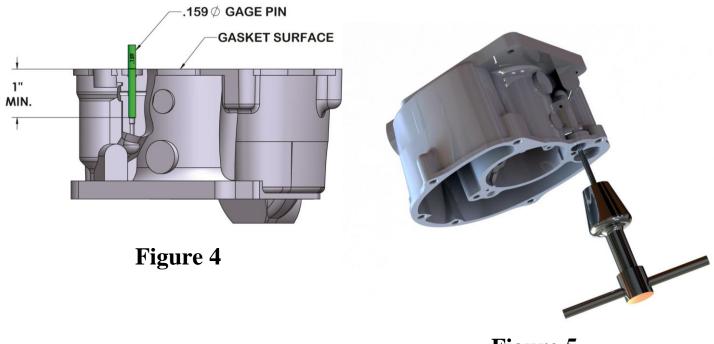


Figure 5

