Applies To

10mm Spring Tip Battens

Introduction

The plastic rear batten tips on spring tip battens are subject to breakage. Depending on the specific type of tip and tip installation, a variety of procedures may be required to replace a broken rear batten tip on a spring tip batten. The four typical types of rear spring batten tip and tip installation are:

Type 1 Moyes type spring batten tip - secured with rivet. - Used on Fusion SP's equipped with spring battens manufactured between August 1999 and May 2000. Can be identified by fact that the slot in batten tip, and the rivet which secures the tip in batten are in the vertical plane.

Type 2 Wills Wing type 1 spring batten tip - secured with rivet. Used on Fusion SP's with spring battens and Talons made between May 2000 and December 2001. Wills Wing Type 1 spring batten tips can be identified by the fact that the slot in the batten tip, (and, when secured with a rivet, the rivet which secures the tip in the batten) are in the horizontal plane.

Type 3 Wills Wing type 1 spring batten tip - secured with a punch indentations in either side of the batten. Used on all spring tip batten equipped gliders from December 2001 until June 2002.

Type 4 Wills Wing type 2 spring batten tip - these batten tips are made with a center web in the slot area, to strengthen the batten tip, so that instead of a through slot, there is a channel on each side of the batten tip. These tips were used on all spring tip batten sets manufactured after June of 2002, and are recommended when replacing broken batten tips.

Parts Required

Type 1	15H-1241 BTN TIP MOYES SPRING TYPE	qty as necessary
	10R-0539 RIVET AL 3/32 X 7/16 TUBULAR	qty as necessary - 1 per tip
Type 2,3,4	15H-1252 BATTEN TIP 10MM SPRING T2 WHT	qty as necessary
	15H-1253 BATTEN TIP 10MM SPRING T2 BLK	qty as necessary

Tools Required

Type 1 Claw Hammer, small diameter (3/32 or less) drift, base plate with opening, or bench vise.

Type 2 Claw Hammer, small diameter (3/32 or less) drift, base plate with opening, or bench vise, sharp tipped steel punch.

Type 3,4 Bench vise, Drill with 0.3300 Diameter Reamer Bit, or 21/64 drill bit.

Note: Reamer available from Wills Wing: 70L-2070 REAMER - 0.3300 IN DIAM

Procedures

Type 1:

Because of the different orientation of the slot, and slightly different dimensions of the batten tip, the easiest way to replace a Moyes type batten tip is with another Moyes type batten tip. To replace this type of tip, you will use a new tip and a new rivet to secure it. The 10R-0539 aluminum rivets are manufactured with a head on one end. During installation, the other end is peened with a hammer to form a head which secures the rivet in the batten tube. To remove a broken batten tip, it is necessary to remove the rivet which secures the tip. To do so, position the batten on a base plate or slightly open bench vise, with the rivet vertical, and aligned over the opening, and with the manufactured rivet head on the bottom. Position the drift against the peened end of the rivet and tap the drift with a hammer to drive the rivet free of the first wall of the batten tube. You can then use the claw portion of the hammer, or a pair of needle nose pliers to pull the rivet the rest of the way out of the batten. This will allow you to remove the broken batten tip. Install the new tip and a new rivet, place the head of the rivet against the base plate or solid face of the bench vise, and peen the rivet end with the hammer to secure it.

Type 2:

Follow the procedures for Type 1 above for removing the rivet and removing the old broken batten tip. If you are replacing the old tip with the same type of tip (tip with a through slot), you can, at your option, follow all of the type 1 procedures above, using a new rivet to secure the new tip. Because they are much more resistant to breakage, however, we recommend that you replace broken tips with the "T2" type webbed tips, as are used in the Type 4 installation. To do this, use the following procedure:

You will need a table top or flat counter surface to work on, with a small block or vertical edge against which you can compress the new batten tip into the batten against the spring tension. Carefully mark the batten tube adjacent to the holes from which the rivet was removed, on the tube center line, and 1/8" farther up the batten (farther away from the rear end of the batten). Place the batten flat on the table (on its side) and install the new batten tip, and orient it at the proper angle (batten tip slots aligned with the rivet holes, and extended tab on rear of tip oriented towards top of batten.) Compress the tip into the batten against the spring tension so that some portion of the slot in the batten is aligned underneath the mark you made on that side of the tube. At the marked location, carefully punch the tube to a depth of about 1mm (or 1/32 of an inch) to retain the tip in the tube. Turn the batten over, and repeat the punch on the other side. Do not punch too deeply, or you may inhibit the ability of the tip to slide in the tube.

Type 3 or 4:

Cut off the rear portion of the old batten tip, so that the tip can be pushed entirely into the batten tube. Use the .300 reamer (or a 21/64 inch drill bit) to chase the batten tip up into the end of the batten tube, and remove the portions of the aft punch marks which extend into the inside of the tube. As you remove the reamer or drill bit after doing this, the remaining piece of the old batten tip will now be free to fall out of the tube. Follow the procedure in the second paragraph of the instructions under "Type 2" above to install the new tip.