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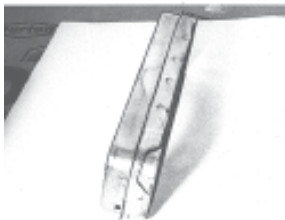
One of the things I've always liked about my Tiger was the vents under the dash which allows cool air to flow into the footwell area. Since this is a change that was introduced with the Series V bodystyle, all of the B947 Tigers lack this desirable feature. I've been restoring our "early" Tiger for a number of years and its finally getting close to running. Last spring, I decided to take a close look at this vent system to see if a retrofit could be accomplished prior to the final assembly.

One of the problems with these vents is that after 30 years of operation, the molded-in flexible hinge cracks, leaving the cool air path open full time. This was the case with both of my B382 Tigers and everyone knows that the only spare parts for these vents come from Alpines. Unfortunately, The Alpine parts are also 30 years old, so working spares are hard to find, and usually short lived.

A new mold was created to reproduce the vent doors. They are now available as a kit from Rick at Sunbeam Specialties. The kit includes the doors, die cut gaskets, springs, spring bushings, and instructions, but back to the retrofit situation.

One of the most critical steps in this retro fit is obtaining the donor parts from a series V Alpine. In order to properly fit them into the Tiger, the metal shells that hold the plastic vents to the body must be removed from the Alpine. When the sheetmetal shells are cut out, be sure to cut at least 1/8" outside the shell so as to leave a perimeter flange around the shell. This simple step allows the shells to be easily remounted into the Tiger using adhesives. The list of "donor" parts is as follows:

- Left and right sheetmetal shells.
 - Left and right vent assemblies.
 - The lower dash bracket, including both actuation rods.
 - Don't forget the clips to re-attach the rods.

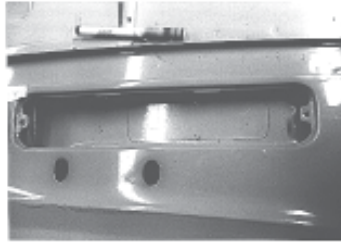


After everything is cleaned up and the vent assemblies have been restored, were ready to begin installation. The first step is to trim the flanges on the shells down so that only .06" to .09" remains. Power sanding is my preferred method, and be sure to remove all traces of burrs so their smooth at the edges.

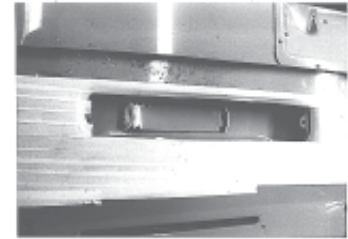
Next examine the shells and observe that the remaining flanges are not parallel to the tops of the shells. The cowl has a radius at the point of installation, and the vent shells go in level horizontally, so the flange has a slight angle on the shell. Now we measure the locations of the holes to be cut through the cowl. Spacing on the left is different than the right to allow for dashboard bracketry. I measured my Series V body dimensions and duplicated them in the Series IV. The side to side measurements were made from the center of the outside retainer hole to the



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outside of the vent shell. The side dimension on the right side was 1.45", and on the left it was 1.70". The front to rear measurements were taken from the cowl wall below the recessed lip, to the rear outside of the shells. They are .375" to .437" on both sides. This dimension is



less critical as long as the vents are parallel to the vent opening. After the shells are located with these dimensions, the inner perimeter should be traced with a good "sharpie" or other pen that leaves a fine trace line of the shell outline. After the outlines are marked, the surrounding area should be covered with a high grade of long term masking tape to protect the body paint.

I used a combination of an electric drill with a 1/4" bit on the ends and a 3" dia cutoff blade in an air grinder to cut the lengths. A dremel tool with a carbide burr was used to smooth and enlarge the openings. This operation gave me pause for thought, cause its real tough to make repairs in that area, but after you get started, its really easier than you think. The openings are enlarged to the point that the shells drop into the openings to the flanges. The flanges are used as the bonding point to the body. Be patient and enlarge the openings slowly.

After your satisfied with the fit, its time to attach the shells to the body. I like to use 5 ton epoxy on bare clean steel to perform this bond. Sanding and blasting the components gets them mechanically clean, and a touch of lacquer thinner takes care of traces of oil, grease and wax. Mix the epoxy and make a bead on the bottom of the shell flange all the way around. Invert and place the shells into the openings. Give the epoxy some time to flow, and cleanup any excess on the area around the flanges. Allow a minimum of 24 hours (more in cold weather) for the epoxy to set. I use an acrylic caulking to make a slight radius and smooth the area around the shell. These acrylic caulks are water smoothable, so you can wet your finger and male a smooth fillet of sealant around the shell to cover and seal the epoxy bond. After this area is well cured, prime and paint the vent opening and shell to protect the metal. I like to use a silicone based sealant on the bottom of the new penetration to give me a double water seal. The silicones are "spreadable", but not as "neat" as the acrylics, and paint doesn't bond to the silicones.

Install the rebuilt vent housings into the shells and rivet them in place as described in last months Tip. Then install the new dashboard brace and actuation rods. Now were all set for summer driving.

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fig 1 Here's the shell with the flange cut to size, ready to install.

fig 2 Measure from the edge of the shell to the center of the retainer hole.

fig 3 All marked and ready to cut.

fig 4 Dress the area, and cut carefully.

fig 5 A final coat of silicone rubber below the cowl.

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