



Dynamat Extreme acoustic and heat insulation on rear deck of Bruce's car. New window seal, lock strip and external rubber seals have just been installed too.

Number 6 already? This issue, it's time to move inside the car and talk about upholstery, glass, sunroof, insulation, heater and everyone's favorite part, the door piston.

Bruce chose to use Dynamat Extreme acoustic deadener on the rear package tray, firewall, door and floor. Both sound and heat were the issue here. The sides got some of that thick, gray insulation from JC Whitney (www.jcwhitney.com or 800-529-4486) which is very effective. If you want to save some money here and still get the job done, you could simply put strips of Dynamat in rather than cover everything. It's got an adhesive backing that holds very well, conforms to the beads in the body panels and eliminates that tinny "empty beer can" resonance. Be sure to have a wallpaper roller on hand to press it down good and tight along with the rounded end of a screwdriver handle to press it into the beaded grooves too.

Another JC Whitney item that really looks sharp is their vinyl edge trim. Bruce used black trim around the sunroof opening and around the entire interior perimeter of the side window openings. This trim has a bead of adhesive in it that sticks very well but allows for removal for minor trimming prior to final installation. This trim also comes in chrome should you want to run it down your rain gutters and spiff up the roofline of your car. JC Whitney part number for a 50-foot roll is 12ZJ5826R for black, 12ZJ5825A for chrome and runs \$18.95. This is plenty to do two Isettas.

After having purchased all new window seals, chrome lock strips and felt channel, along with a new windshield from LoCan International, it was time to find a glass man. Debbie Stuart at Terry Sayther Automotive pointed Bruce to Bielstein Auto Glass for this one. Chris Bielstein came to the house and in 45 minutes, the front and rear windows were popped back in good and tight. Unless you have the tools and experience, DO NOT try this at home! In our area a mobile auto glass company charges around \$50.00 per window and worth every penny of it.

Bruce and Robert's new windshields were broken in transit due to flat out, lousy packing. Robert purchased his windshield from a different source and had a big hassle with UPS. Several months later, he finally got his reimbursement check. In Bruce's case, LoCan handled the entire process, had a new "super packed" windshield out in a couple of days at no charge, and took ownership of the freight damage claim. Pay for insurance if you buy one! While LoCan may have made a mistake the first time around, these folks stand behind what they do, right down to the follow up phone calls to make sure the second unit arrived OK. Impressive service!



Chris Bielstein of BAG massages original rear window into fresh seal. Chrome lock strip topped the job off.

Bruce will install side windows, seals and felt channel after car is back on the frame per John Jensen's book. This is where pictures and/or drawings of disassembly will come in handy too.

Lets discuss that wacky Isetta door piston. As you may remember from an earlier installment of TGFT, Robert narrowly missed getting an impromptu lobotomy when he took his door piston apart. That spring may not hold the door open any more but it still packs a wallop when it sees the light of day! Remember the spring compressor you used to remove and reinstall your front shock towers? Well, it works like a champ on the door piston too! Taking it apart is a bit easier than the reverse but it is recommended that you have someone help you keep everything steady. To disassemble, just evenly compress the piston until you can unscrew the collar holding the two pieces together. Then, slowly back it off until the piston can come out with the spring fully extended. You might keep your propane torch or heat gun handy too as those threads have been under a lot of pressure for along time and that fine threaded collar may need to be heated first.

Once it's apart, has been painted and new silentbloccs have been pressed into both eyelets, you have a few choices on how to beef this little bugger up. John Jensen offered up the idea of placing a gas strut inside the spring prior to reassembly and tackling the problem that way. Werner Schwark has the strut and washer assembly ready to install for around \$50.00. Isetta parts suppliers offer a whole new spring in the

\$75.00 range. Your original spring could probably be re-tempered but we've yet to find anyone in our neck-of-the-woods who can do it. Carl Jensen's idea was to insert a small round piece of wood first, then the spring and give the spring a bit of boost that way. It's served Carl's Isetta well for 7-8 years now. Beware on this one though! Don't make that shim too thick or the spring will compress before the door closes and you'll get to go through the drill all over again. Sorry, don't have the maximum allowable thickness for you as of this writing.

OK, how do you put this armed warhead back together without causing inadvertent urban renewal? Ramsey Eddins of Coppell, Texas got to thinking about it and came up with this simple, effective solution. Before you start, be sure to coat the spring, external threads on the piston and knurled ring with fresh bearing grease and squirt the inside of each part of the piston with a thick spray lubricant like Amsoil MP-HD or use some bearing grease. The Amsoil is kind of waxy once applied and won't run. You don't want this thing squeaking and squealing every time you open and close the door.

Here we go. Step One: Cut two pieces of a 1 x 6 into 9 inch lengths. Place them at right angles and fasten them together with wood screws. This gives you a 'cradle' to hold the piston against during the proceedings. Angle iron would accomplish the same purpose. Cut another piece of 1 x 6 10-12 inches long and drill a 1 1/2" hole in the center for one of the eyelets to rest in. The top part of the spring compressor already has one. Replace the flat, bottom board on your spring compressor with this new piece. Don't use a flat board because the piston will start to "walk" on you as you tighten the piston down. Step Two: get a fearless helper to steady the piston/spring unit in the cradle you made while it's being cranked down by the spring compressor. Wear leather gloves and safety goggles, too. Step Three: Put the compressor in place and, once snug against the top and bottom of the piston, begin compressing the assembly making sure that you turn each side down evenly. Be sure and put a clean towel down under the piston so your paint isn't damaged. Step Four: Your helper will feel the piston assembly try to push out when the two piston pieces are about and 1 1/2" to 2" apart. Just have them keep the piston pressed flat against the guide you made until the male (smaller) part of the piston is inside the female part. Continue to crank down the compressor until the knurled ring can be screwed onto the larger threaded piston. Step Five: Ask your helper what kind of beer they like. Takes about 3-5 minutes and you're headed to the fridge.

Let's go ahead and mention the Isetta heater system, specifically the earlier, under seat unit that attaches to the engine cooling shroud via square rubber hose behind the firewall. Units we've seen are badly rusted and the original hoses are long gone.



Shiny new Belchfire 300 heater system looking light years better and ready to toast marshmallows. Right!

Bruce and Robert had their respective units media blasted and painted with high temperature paint. The three items that might be missing or badly worn are the two fiber bushings on the heater flap shaft, the cardboard heater box cover and the flap lever knob. You can make new bushings although they are one-of-a-kind items in that one side is flat and they have a groove in them where they fit into to heater box. Sort of a large grommet with part of one side cut off.

The knob is available from parts suppliers or, if you're so inclined, or you can transplant one from an early VW bus turn signal. Shy away from those funky kitchen drawer knobs like the one that came on Bruce's car. The hose is best replaced with a flexible, plastic hose with wire reinforcement, kinda like a stretched out slinky toy with plastic wrap around it. JC Whitney has these for you, too. Just order a 6-foot fresh air duct hose, 1 3/4 inch inside diameter and trim it to length once you get your heater back in the car. You'll want their part number 19JZ0348B. Ten bucks. Be sure and pick up a couple of stainless steel hose clamps at the hardware store while you're at it. For a hose closer to the original paper-type, ask Werner Schwark (770- 924-8530) about his part number F-112.

You can make a snazzy new cover for the heater box by getting the smallest fold-out windshield sun screen your auto parts store has. Should run around five bucks. The material these shades are made of will certainly stand the heat, they're cheap and easy to cut. Bruce's was a sort of dimpled, shiny aluminum looking material. Be sure to make a template out of thin cardboard stock or paper grocery bag. The curve on the passenger side will take some tweaking to get the top and bottom seams to fit once installed. Just transfer the template onto the windshield sun screen, cut it out and use three long tie wraps, evenly spaced, to secure the new cover. Aluminum tape is perfect for covering that curved seam and holding everything together.

The upholstery wasn't near the ordeal that finding the body shop had been. Cecil's Auto Trim in Austin has been in business for many years and is street rod and restoration savvy. The seat frame was dipped and painted prior to delivery. A new sunroof was supplied along with rejuvenated mounting hardware and freshly

chromed handle. The original rear deck and door panels were taken along for templates. A new under seat panel went along for the ride as well. The sunroof was bought through suppliers and looked well made. It turned out that the seams in the front corners weren't quite the right shape and gave the upholsterer fits trying to get a nice, neat look. A little massaging and heat gun treatment make things a bit better.



Randall West of Cecil's Auto Trim in Austin stitches the new seat cover up for Bruce's car.

Thanks to templates supplied by Firemarshal Bill Waite and a spare side panel generously supplied by Isetta John Wetzel, a lot of time and labor was saved in fabricating new pieces to replace the long lost originals. In regards to the under seat panel, Bruce snapped it on to the seat frame to confirm it was dead center and then placed it at the rear of the wheel wells, with the heater unit in place to check the location where the heater flap lever would emerge. An elongated slot had to be cut to accommodate the shaft on this otherwise flat panel. Since the panel was going to be carpeted, this precaution was taken so no surprises were encountered later.

Bruce chose a medium gray, cross-hatch fabric, reminiscent of the original basket weave design. Complimentary gray carpet was chosen for the rear deck, floor and under seat panel.



Brand new seat, side panels and carpet in Bruce's car. Door panel is next. The door panel was easily the biggest time consumer in terms of labor to reconstruct a new one even though the original was used for a template.

One final item that bears mention ... the speedometer. Robert elected to exchange his with a fresh unit from Hans Rothkegel. Bruce sent his unit off to Palo Alto Speedometer (www.paspeedo.com) for a complete rebuild. While the absence of a speedo won't keep your car off the road, plan on at least 2-3 months to get your unit back if you're planning on having the dial face re-screened. Also figure that it will cost just slightly more for just the screening than the instrument rebuild will. Bruce didn't recognize his unit when it came back ... absolutely beautiful! By the way, if you're going this route, either have your existing bezel chromed or order a new one from Hans or Werner for ten bucks and send it along with the speedo. Palo Alto has all of the original VDO tools including a crimping tool for getting that bezel on good and tight. Outstanding work!

Next installment, we'll put the body back on the frame, get bumpers, side windows, heater, dash, wiring harness, voltage regulator, gas tank and steering column installed. Then we can fire it up and find out what we did wrong. Gittin' close ...

Our parting shot this issue is to make sure you're aware of the National Meet coming up this September 27, 28 and 29, 2002 in Cedar Hill, Texas. That's just south of the Dallas/Fort Worth Metroplex. It will be held at the campus of Northwood University, site of the Texas Minicar Roundup each April. Your host is Ray Morey in conjunction with the Central Texas Micronuts. Can't wait to put a face with your voices and emails!



Flamed out Slider at the Seattle Roadster Show. Photo courtesy of Firemarshal Bill Waite.

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