

## TWO GUYS FROM TEXAS

By Bruce Fullerton (1712) and Robert Mace (1713)

What are the chances that two strangers living in the same town are restoring almost identical Isetta 300 Sliders at the same time and are on a similar pace? Well, it's happening here in Austin, Texas where the weird, off-the-wall, cutting edge mindset are the rule rather than the exception. This is the story of my 1957 Slider and Robert Mace's 1958 Slider and our adventures in bringing them from grave to cradle. We're no longer strangers.

To put this series in context, please stand advised that as first time Isetta restorers we wanted to pass along information that would be generic enough that it could be applied to any restoration project but specific enough that anyone currently restoring an Isetta or considering same, could have insight into our adventures including the purchase of our cars, Isetta stories, dismantling, helpful tools, obstacles encountered, do's and don't-do's, Isetta "re-engineering marvels", etc. We're not attempting to rewrite John Jensen's book but, well ..... call it a conversational addendum from a couple of non-experts who have learned a lot in the past eighteen months.

In the Summer of 1969, my brother, Gray, got the hots to buy an Isetta. As kids, we had both been amused by a local exterminating company's fleet of new red Isettats in the late 50's, complete with front and rear illuminated "antennae" that resembled insects. It was quite a sight to see this armada of Isettats peeling out of the parking lot at 12<sup>th</sup> and Lamar at 8:00 AM to start making their rounds.

Gray found one which he bought for \$150.00 ... not running but in great shape. He wasn't mechanically inclined so I inherited the task of getting it back on the road. There was an old guy, Jesse James Smith, who had been the original Austin Isetta dealer (along with Citroen, Peugeot and others) just north of the University of Texas, who still had plenty of parts on the shelf. With a new set of points, condenser and some black magic, we got it running. After a night of cruising the town, we were within a few blocks of our house when the engine blew up like an above-ground nuclear test. I can still hear my brother's exact words ... "I thought YOU were going to put the oil in it!".

While the Isetta had been a lot of fun to drive, I preferred my Z-28 Camaro and Mom's GTO. To make a very long story short, the Isetta literally got put out to pasture at our family ranch 25 miles north of Austin and was eventually whisked away by someone that was interested in fiddling with it. The Isetta was a gone and forgotten matter until 1996. With the proliferation of the Internet, I searched on "Isetta" one day at the office and found a few Web pages on the subject. That's all it took ... find another one!

My car was an Internet find, from a BMW motorcycle restoration shop in Sturgis, Mississippi. It was owned by a gentleman in Hattiesburg who bought it on a whim and knew very little about it. The car was at the shop because the shop owner did work on the Isetta owner's BMW bikes and agreed to let him store it there. Now, he needed to reclaim his valuable

space for customer's bikes and, after having owned six or seven Isettats, he had better things to do. Robert's car, on the other hand, came from Ray Morey in Dallas.

My father and I drove to Sturgis, Mississippi, looked the car over and bought it. We loaded it into the back of my Chevy truck Memorial Day Weekend '99 and back down I-20 we came to Texas. It was a glimpse of what driving an Isetta is all about. We had the stares, cars that lagged behind us trying to figure out what it was, kids who knew all about the "Urkel Car" and total strangers coming up to us whenever we stopped wanting to know what it was. One good ole boy in North Texas thought it was some new "four wheelin' outfit" that he might need to have.

Both Robert's and my car revealed more abuse than we expected. Even after reading Jensen's book, there are things you just flat can't expect or plan for. There were the stripped out chain drive drain plugs, scarred transmission covers from drive couplings that "bought the ranch," and missing nuts, bolts and other small parts. The upside of it is that we're now on a first name basis with everyone at the hardware store and that it has been very gratifying to plow through these problems and get them solved, one by one.

There are a few things that you need to factor into your restoration project budget. They are must have items, not necessarily in the following order!

1. Propane torch (about \$12.00 bucks and worth every penny). Might go ahead and pick up a heat gun while you're at it, too.
2. Metric sockets and wrenches.
3. Dremel tool (You'll use this mucho! A great tool to have around the house anyway!)
4. Metric tap and die set (It'll pay for itself)
5. Metric thread gauge (gotta have it, about \$10.00)
6. Lots of hand cleaner. (Fast Orange or Zep will do the trick!)
7. Lots of rags.
8. Big Chief Tablet and #2 pencil to make notes and diagrams
9. John Jensen's Restoration Manual
10. 4 jack stands (a pair run around \$10.00-\$12.00)
11. 1000' of workbench space (Right! Settle for as much as you can get)
12. Boxes and labels for storing your completed "subassemblies"
13. A box of large Band-Aids
14. Patience

I've also found that when looking for more generic parts such as seals, nuts, bolts, electrical items, DON'T TELL ANYONE IT'S FOR AN ISETTA! You'll get that patented catatonic stare and the stock answer, "we don't have anything like that". Tell them you're building a land speed record wheel chair or a left handed smoke shifter, anything, just don't mention the "I Word". Keep in mind that you are probably going to go to reliable Isetta parts sources such as Hans Rothkegel or Werner Schwark for the unique stuff anyway and they speak fluent Isetta.

The order of events in performing a 100% frame off restoration is not set in stone but it is our opinion that getting a fresh, rolling chassis is job number one. The real key to organization and keeping focused is to concentrate on one project at a time and try to refrain from disassembling multiple parts and ending up with a mess on your workbench and not remember how to reassemble them. You also stand to save a small bundle of cash on freight if you organize your parts orders to make sure you have everything you'll need (bearings, gaskets, seals, etc. for rebuilding your chain drive, for instance). Freight can really add up over the long haul if you do this otherwise.

The body was removed from the frame along with all associated components first. It was placed on 2 x 4 skids and put up on sawhorses. We'll revisit this part of the project in a future installment.

#### Chassis / Frame:

Remember the rags, hand cleaner and Band-Aids previously mentioned? Get them out. The running gear is as big a mess as you could ever hope to dive in to. In true Isetta fashion, all grease seals were long gone allowing all of the grease to now reside on the *outside* of the car along with dirt, sand, spider webs and a nice bonus hairball on my chain drive. Robert's car was no different although he got ripped off for the hairball. Another local Isetta/Messerschmidt owner and Minutia contributor, Carl Jensen, kindly loaned me his spring compressor for disassembling the front shock towers. He built his compressor from the plans in Jensen's book by the way.

*Note:* This compressor works like a champ on the door piston! You can keep the piston under control when disassembling and prevent the inevitable "moon launch" of the inner spring when it comes apart, possibly preventing the "installation" of an impromptu skylight in the roof of your garage. Robert had the equivalent of a high performance, spring steel bottle rocket loose in the garage when his came apart. He lived to tell about it but ... use the compressor. If you don't have one, two NFL defensive tackles are a nice substitute.

First items removed were the steering knuckles, hubs, etc. As you pull the hubs off and remove the outer wheel bearings, make note of any shims that may be behind this bearing. Apparently, some Isettas have them, some don't. Mine had one on the right front and none on the left front. Have your Big Chief tablet handy here.

The kingpins came out fine with heat from the torch and a bit of twisting. The wedge pins took some banging and even more heat but came out. Just assume that you'll destroy these pins and factor the price of replacements into your project. At \$15.00 for the pair, including associated hardware, it's hardly a show stopper.

These front end components went straight to our neighborhood Phillips 66 station, one of few full service, mechanics-on-duty stations remaining in our part of the solar system. They had taken an interest

in the project and gave me full reign of their solvent tank, air compressor and hand cleaner. If you have access to such a place, make sure you go late in the day or on a weekend so you don't disrupt their 9-5 business. Never been turned down and never gotten in the way.

The steering knuckles were, one at a time, left in the carburetor cleaner basket overnight and were hardly recognizable the next morning since they were bare aluminum instead of Grease Brown. Ditto on the other items.

*Another note:* Be sure you're ready to paint any part that is steel once it's clean. You won't believe how fast rust sets in on a clean part! If there is anything good to be said about old grease, it's still doing a pretty good job of protecting what's underneath it. *Immediate attention to paint (or fresh lube) is the other half of a clean up job on all parts!*

Robert graciously let me use his Eastwood Benchtop Bead Blaster for cleaning up the steering knuckles. These things shine up beautifully! Be sure to protect the brass bushings pressed into the kingpin holes and make sure you get the old grease out of the grease fitting grooves with solvent and plenty of compressed air.

The steering knuckles, along with almost every other cast aluminum part on the car, was given three coats of Clear High Temperature Engine spray paint for the final touch. It takes that raw aluminum look down to a dove gray color with a satin sheen ... really nice.

My brake system was history. As a matter of fact, the only original part of the system that was retained was the brake pedal. The master cylinder was a retro unit from who-knows-what and an anonymous "Isetta surgeon" had placed a can of brake fluid upside down into the master cylinder for a continuous I.V. of fluid. Jed Clampitt would have been proud of this high-confidence fix. All cables and master cylinder actuating rod were rusted and discarded.

A replacement master cylinder, actuating rod, linings and brake lines were ordered. The drums were taken to a local brake and clutch shop for turning, mounting new linings and arcing. Everything looks like, or better than, new. We opted for the "cunifer" brake lines instead of off the shelf steel lines for longevity's sake. They are also softer and easier to bend. Tried to take the easy way out and get the lines at the local parts store but couldn't turn the rear 44" line. I went ahead and bought a couple of steel lines (\$3.00-\$4.00 bux) just to practice on with the tube bender. Finally, I splurged for a set of three 18" stainless steel brake hoses from Bavarian Autosport ...about \$25.00 apiece. These babies are sharp! They're located at [www.bavauto.com](http://www.bavauto.com)

Finally, the chain drive came out with some heat and coaxing of the lower spring bolts. Other peripherals such as the rear mud guards, bracket, muffler and rear springs were removed leaving a bare frame.

Frame was put in the trunk of my Toyota Avalon and taken to the local car wash for a complete pressure

wash with engine cleaner prior to having it bead blasted and powder coated. The same company did both of our cars and did an outstanding job at a reasonable price.

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**Important!:** Prior to blasting/coating/painting, go to the hardware store and get some fender washers and long bolts and nuts so you can cap off the top and bottom of the stub axles as well as the tube at the left front of the frame that houses the steering shaft. This will keep grit/paint/powder coating out of these areas. Powder coating is tough enough stuff that you don't want to have to spend an afternoon or two sanding it out so you can put your kingpins back in.

Prior to taking the frame to be coated, most of the subassemblies (steering knuckles, brake system, master cylinder, chain drive, tie rod, front suspension, etc) were completely refurbished. Old shocks were retired for a new set, all new rubber including new O-rings, silentblocs for steering, lower swing arms and rear springs were installed. When the frame returned from the shop with it's new matte black powder coat job, there was a ton of new, shiny parts ready to re-install. It was at this point that people stopped wondering if anything had really been done to the car in the past eighteen months. Robert's chassis is really looking sharp right about now, too!

Mentioned the rear springs .... these guys were caked with grease, dirt and rust. The rear silentblocs were rotted and distorted. A local brake and clutch shop pressed the old bushings out, disassembled the springs, steel bead blasted them, painted them matte black and put them back together, including the new bushings.

*Yep, another note:* I had been strongly advised against dismantling the springs due to cost and the hassle factor. The brake and clutch shop looked at them and told me it was worth taking a shot at. Turns out that the pins on the metal bands around the front and middle of the spring only go into the first (top) leaf. After gently prying the bottom of the bands outward, they simply shelled each spring out, bottom spring first. \$40.00 each and no big deal after all!

I elected to replace all nuts, bolts and washers with new stainless steel. The exceptions were the proprietary bolts such as the spring bolts, any bolt that was drilled for a cotter pin / castle nut configuration and any high stress bolts such as motor mounts or anything that was to be torqued down. Use your originals or replace with Grade 8.8 steel. It's relative pocket change and as long as you're working with a bare frame, you'll never have a better opportunity to go for these kind of details. This part of the car gets a lot of wear and tear from the elements so it made sense to go the extra step. Makes an incredible difference!

Next time, we'll have a major update on our project since things are going to be put back together and double-checked. Robert's car is farther along than mine so we'll try to include some pix for you ...