

The '66 Corvette Challenge

Part 6

“Like it Never Happened...”

By Pat Cavanagh NCRS #57907

In Part 5 of *The '66 Corvette Challenge*, we shipped my C2 frame by truck to Rogers Frame Restoration in Ada, Michigan.



Before, we discuss the process used to restore my '66 frame, I felt it would be appropriate to share some background on Rogers Frame Restoration.

Roger Gress established Rogers Frame Restoration to focus on the repair and restoration of Corvette C2/3 frames after forty-five years' of experience in the frame, collision and restoration business.

Roger began his career in 1970, after being discharged from the U.S. Army. He began working on a Bear frame rack repairing damaged frames and doing alignments at a shop in Grand Rapids, Michigan. In 1983, he was hired by Berger Chevrolet in Grand Rapids as the manager of their body shop. You may recall Berger Chevrolet had a national reputation for high performance

Corvettes and Chevrolet muscle cars. Roger was at Berger Chevrolet until 1994 when he and two partners opened a collision and restoration shop in Grand Rapids called Impact Collision Repair (ICR) in early 1996.

When Roger started ICR much of the Corvette repair and restoration business followed him from Berger Chevrolet. In 2007, after some disappointing work from a local frame shop, he decided to build a frame jig and restore frames at ICR. Using his years of experience, his library of C2/3 information and a perfect C2 frame, he built a frame jig with the help of a local fabrication shop. That allowed ICR to accurately restore the plethora of rusted and damaged Corvette C2/3 frames that were coming to their shop.

Roger and his partners sold the ICR business in 2015. Following some family medical issues, Roger purchased the C2/3 frame jig and other tools from ICR when the new owners decided to take the business in another direction and pursue building resto-mods.

Roger started Rogers Frame Restoration in January 2016. He employs two certified welders that help him with the restoration of the C2/3 Corvette frames. They have restored well over 250 frames in the last few years.

Using the C2/3 frame jig and fixtures Roger insures that all the frames he restores are put back to like-new condition; straight, true and cosmetically better than new. Or as Roger says "Like it Never Happened". Frames from Rogers Frame Restoration have received many Bloomington Gold and NCRS Top Flight awards.

Corvettes have always been a passion for Roger. In 1966 when he was 16 years old, he bought a 1959 Corvette, which he still has today. He has the passion!



Back to my frame.....

Shortly after Roger received my shortened frame, he cut the front section off his donor frame. He then sent my shortened main frame and the donor front section out to be sand blasted. Sand blasting confirmed that my main frame and the donor front section were solid and rust free.



When they came back from sand blasting Roger mounted my frame in his C2 jig and did a thorough inspection. As he had suspected earlier the driver's side frame rail between the transmission cross member and the firewall body mount was $\frac{1}{2}$ inch low and $\frac{1}{2}$ inch too far inward as a result of the accident and the poorly done repair job. Roger used his frame table and fixtures to bring the driver's side rail

back into position and then he waited 24 hours to insure it did not



return to its previous distorted position. It seems these old frames sometimes have a memory!

Once Roger was sure that the frame section was perfect, he confirmed it in the jig. Next, he measured to make sure the donor front end would splice together at precisely the right point with the main frame section. Then Roger inserts specially made 1/8 inch thick steel sleeve into both frame horns that have the same geometry as the inside of the frame rail.



Once both frame sections were mounted in the jig, and the gaps were correct, multiple 3/8 inch holes are drilled in the frame rails and the sleeves are spot welded to the frame rails. As you can imagine there is a sequence to this procedure to insure the front frame section is correctly attached and aligned to the main frame section. Finally, the frame is welded together at the junction of the two frame sections.



Since my car was going to see plenty of abuse I thought this was a good time to replace the fixed transmission cross member with a removable cross member. This allows easy removal of the transmission without removing the engine.

There are several aftermarket kits that allow you to modify an existing fixed cross member so the transmission can be removed independent of the engine.

Roger prefers to completely replace the fixed cross member with a C3 Corvette removable cross member when he adds this feature to a C2 frame. He feels it is stronger, lighter and less expensive than many of the aftermarket kits.

Chevrolet started using a removable cross members with Turbo 400 automatic transmissions in C3 Corvettes in 1968. In 1981 Chevrolet began using the removable cross member in manual transmission C3 Corvettes also.



Roger removed the fixed cross member from my frame and welded in the brackets and tabs to make the C3 removable cross member work correctly in my C2 frame. This includes the emergency brake bracket that is specific to the '66 Corvettes. Roger also included the C3 transmission tail shaft bracket for my Muncie 4-speed transmission that works with the new cross member.



When the frame was finished and all the dimensions were confirmed on the frame jig, the frame was sent out for a second sand blasting and powder coating. It was then bubble wrapped and shipped.



I had the restored frame shipped to my house. Delivery required a truck equipped with a lift gate to make a residential delivery.

With the long pallet required for the finished frame, the lift gate was not wide enough to drop the pallet in my driveway. I had to use my engine hoist to support one end of the pallet and coordinate lowering it to the driveway with the liftgate.



Thankfully, Scott and Kelly were available to help the truck driver unload the frame. In hindsight, I would find a trailer and pick up the frame at the truck terminal where they could place the pallet on the trailer with a forklift, and I could roll it off in my driveway on skates.

The frame is now safely back in my workshop. My first impressions are; it is beautiful and I am very pleased with the workmanship. While this was not inexpensive, I feel this was the right decision for the peace of mind it provides me.

Stay tuned for Part 7 where the frame goes back together! Like always if you have any questions on this or any other article you can email me below.

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