## The Hit, the Teardown and the Rebuild of my 2004 Mazdaspeed Miata

This was the pre-collision state of my MSM August 27<sup>th</sup> 2017. I had just had the rocker panels fixed the previous year. If I had only known what the future held in store !!!!



Right after the collision Sept 5<sup>th</sup> 2017– Mustang driver hit me from behind. He was too busy gawking at accident on other side of the road (where police and tow trucks were already in attendance with flashing lights).





The tow up to the body shop, Theaker's Collision near where I live. The tow truck was already on scene due to the other accident. Police and tow truck operator witnessed the hit on my car.





Insurance gave the go ahead on my car after inspection a few days later. They were very good about the repairs. The teardown of damaged panels – Sept  $28^{th}$  2017



Note the rust in the arch lip and rocker areas. At least it was going to be thoroughly taken care off. It was not visible precollision. New metal was welded in during the rebuild where needed

Fitting of the rear quarters underway Oct 4<sup>th</sup> 2017. They have to be aligned along with trunk lid and rear panel for accurate fitting. All new sheet metal panels were obtained from Mazda. So all totally OEM.



Underside of trunk list was painted so it could be attached to new hinges on car for fitting.



New OEM rear panel and corner braces are fitted to car to do alignment of them with quarters and trunk lid – Oct 11<sup>th</sup> 2017. Then parts were brazed in place and then drilled for MIG spot welds to frame and adjacent panels.





Rear quarters were then put in place and welded and glued to existing panels. High strength adhesive was used along arches and door pillar flanges. This required very accurate fitting and alignment of the panels. No chance of water getting in and rusting new arch pinch flanges like it did on originals with just spot welds.

Driver side rear quarter is now permanently in place – Oct  $17^{\text{th}}$  2017.



Passenger side is also permanently in place. High strength adhesive bonding was used for much of it.



Quarters attached to panel behind top in Frankenstein bolt area with high strength adhesive. Spot welds had to be drilled out to lift flanges so fenders could be fitted underneath.



Rear panel now permanently in place and attached to rear quarters. It's beginning to look whole again.



Rear panel welding details, left and right.



Driver's side rear quarter now primed in 2 part epoxy – Oct 20<sup>th</sup> 2017. It will be blocked down to remove imperfections and any orange peel texture.



Same with passenger rear quarter. BTW the panel right behind the top between the Frankenstein bolts is NLA from Mazda. Work had to be done carefully not to damage it.



The rear panel primed.



Detail photos of the left and right rear panel areas. The square opening is for the air release flap. New pone of those was needed too.





Rear quarters blocked down and ready for paint and all seams now sealed Oct  $26^{\text{th}}$  2017.



Trunk lid and bumper cover epoxy primed and ready for blocking to prepare for painting Oct 26<sup>th</sup> 2017.



Note holes for mounting rear spoiler. It came that way from Mazda. OEM spoiler is also NLA from Mazda so minor repairs were made to existing one.



Another view of the new bumper now primed with epoxy primer.



Doors scuffed up and ready for paint.



Rocker guard applied to new rear quarters - Oct  $26^{\text{th}}$  2017.





Paint has been applied – October 30th, 2017. Not quite 2 months since collision.





New paint and clear coat applied rear quarters and rear panel Oct 30<sup>st</sup> 2017. Bumper, new taillights and 3<sup>rd</sup> brake light all fitted on 31st.

Note doors are just a little darker than new quarters as they already had paint on them (it's minor but noticeable). Further application of paint was needed on front of rear quarter panels to blend them in. LSD Differential is back in with replacement carrier. New tires and alignment still to do. Starting to look good again.



New bumper cover and original valance/diffuser painted – Nov 2, 2017



Car all painted and back together sans all emblems on trunk lid – Nov 7 2017. Note that bumper cover is a little low on passenger side. It was adjusted higher later. Other panel gaps are all good.



Note: new Michelin Pilot Super Sport tires are now on car. Alignment done close to 949Racing Street Spec. 1/16" toe in and -1.3 camber on rear.



Car back home all done Nov 10<sup>th</sup> 2017. Damn if it did not snow overnight. Have to wait to test drive it some more



Rear emblems are all on. It's all back together just in time to put it away for the winter. Old silver hard top from my old 2003 Miata to go to Theaker's for painting in a week to match the MSM.





