**ODE TO TRANSMISSION – RAMBLER WOES**

**By Harm van der Veen**

Gary has mentioned he wanted articles on "What are you Working on" and I mentioned in the piece we had put together about our little trip to Oshawa that we've had transmission problems with Barb’s newly-acquired Rambler convertible. Some of you even wanted to know what was going on.

You might classify this escapade as "ASSUME" and every one knows what that stands for, except in this case it was just me that made an ass out of ME! I have no one else to blame. I assumed too many times or perhaps was just hopeful. Ya, let's just go with hopeful.

The car started off running great last year after we got at home. We had the safety check done and were able to drive it around a little bit before it was parked for the winter this year. There must have been a little “Gremlin” in the garage over the winter because when we went to get it out for a Mother’s Day drive into Fenelon Falls, it would not shift out of second gear! Obviously, this was a problem so we stopped at Mike and Gail Putz’s home where the transmission boiled over onto their driveway! (Sorry about that guys!) We limped home, put it up on the car hoist and did some basic diagnostics as outlined in the service manual for 1967. After some discussion, we decided we would replace the transmission rather than fix this one. This transmission was an air-cooled six-cylinder automatic for a 1967 which meant it didn’t have transmission lines to the radiator to cool the transmission fluid (remember the ‘puking” on the driveway?). I had mentioned in the past that if we ever had engine problems with this car, I had a 290 V8 waiting in the wings to swap in as I love the sound of AMC’s V8! Power isn’t an issue because this car is a cruiser.

We went on a quest to find a replacement transmission of the V8 version. Terry Rowland and I made a deal on some parts and I ended up with said transmission, having gathered all the parts and pieces I thought I needed. I began putting the transmission in but as I was taking out the old one, I double-checked the measurements. The outside of the two transmissions appeared identical except for the fittings for the oil cooler lines. One of the first things I noticed was on the 6-cylinder tranny. The ring gear for the starter was welded to the torque converter. Not a problem - I happen to know somebody quite well who's not too bad at welding. I talked to Darryl Rae and ended up scrounging through his parts shelves to come up with a torque converter that appeared to be perfect so I didn't have to do any welding. Great! I took some basic measurements to confirm the fit so I started to put the new transmission back in. I ran the oil cooler lines to the front of the automatic transmission cooler behind the front bumper. I also ran vacuum lines because this transmission had a vacuum modulator valve and an electric kick down rather than cable kick down that was on the six-cylinder. Everything was good to go! I put fluid in the tranny and started it up. It was then that I heard this really unpleasant sound, like a spline slipping inside another spline in the torque converter!

So, out came the transmission!! After another diagnosis and more careful measurements, I realized the inside spline was different than the splines on the input to the automatic transmission. I did have a torque converter for a V8 that did fit the transmission properly so more careful measurements AGAIN! It didn't have a ring gear but hey - no problem. I cut the ring gear off the torque converter I got from Darryl and welded it onto the V8 torque converter. Again, comparing it to the 6-cylinder, I thought I had it welded in the correct location. Transmission went BACK into the car. Expecting to hear nothing, I was really getting upset when I heard an awful grinding sound! I recognized the noise as starter interference with said ring gear so out came this bloody transmission again! Are you detecting a trend yet? Sigh!

So, more “careful measurements” when I realized that the mounting bosses for the bolts that hold it to the engine were recessed on the V8 torque converter rather than protruding on the 6-cylinder torque converter. More calculations and figured out that I had to push the ring gear back about twenty thousandths of an inch! So, I cut it off, rewelded it back in the correct location and put it all back in the car. Fingers crossed, I fired up the car and good news! It fired up with no weird sounds! Hey, I'm making progress here! I put the car in gear to see if it would move forward and it stalled the engine. I tried reverse and again it stalled the engine! Anything but neutral or park and the engine would stall no matter what I did! “Loving” automatic transmissions as much as I do, I was really thrilled by this point! I decided I'd better take a good read of the service manual for 1967 so I sat down with a couple of beers and started reading. I soon educated myself that there's a couple of pressure tech checks to test so I got out my favourite pressure gauge and started testing. A couple of adjustments were made which improved it slightly but it still was not drivable. Ah man??!! I realized the transmission had to come out one more time!

At this point, I seriously thought about fixing the six-cylinder transmission but that wasn't high on my priority list because I wanted to eventually put a V8 in this car. Terry had a second transmission for a V8 so I decided to give IT a try. It wasn't clean and shiny like the one I put in but nonetheless, it was there. The immediate problem was that it was a console shift automatic transmission, not a column shift that was suited for Barb’s car. Darryl Rae had offered up a transmission so I thought I'd take a look at it because it had the appropriate shifter in it. Getting a little smarter by this time, I pulled the oil pan off and the oil inside looked more like engine oil than transmission oil! This transmission had obviously burned and there were also black pieces in the pan which wasn’t good. In my humble opinion, this tranny was destined for the scrap pile rather than Barb’s Rambler! I decided to pull the shifter mechanism out of this transmission and swap it with the second transmission from Terry to make a transmission that hopefully would work in Barb’s car. After doing that with careful cleaning and inspection of the second transmission from Terry, I finally got it all together and installed it back in the car! (Bonus points if you can remember how many times a transmission has been in and out of this car!) I filled it up with fluid, crossed my fingers but I wasn't overly hopeful. Let’s just say - I’m glad I don’t throw things around like I used to when I was younger!!

I started the car up and everything sounded fine! Wow! I put my foot firmly on the brake, put it in reverse and, expecting the worst, it didn’t stall! I shifted into neutral and the engine was still idling! I put it in drive - still idling! I took my foot off the brake slightly with the rear wheels jacked up on stands and they turned! This was a good sign so the next thing was to take it off the stands and actually do a road test. Drum roll please! I took it down the road - first gear, second gear, third gear!! What a relief! It worked well! I brought the car back, I thought - okay, it's going to puke automatic transmission fluid all over the floor! I parked it overnight and when I came into the shop the next day, there wasn’t a drop!! After TWO months of pain and frustration with this car on the hoist, I had solved the problem! Barb and I washed and detailed the entire car and looked forward to getting out and enjoying it this summer!

PS: Since writing this article, it has been to Fenelon Falls/Bobcaygeon, Orillia and will soon be driven to Midland. The only thing keeping it home is the weather!