

Mincomp's Corner

February, 94



On the technical side this month I will tell you about what I discovered about my valve train problems that showed up to haunt me at the SCCA Runoffs. Well, to start with there was not enough oil getting to the valve train. This was caused by an engineering oversight in the design of the roller rocker assembly. Either the oil feed hole in the pedestal was too small and restricted oil flow up to and through the rocker assembly or more probably, the rockers had no oil squirters to direct oil at the valve and pushrod tip, thus reducing the oil quantity there. Or it could have been a combination of both. Second, on this particular block, the number

1 pushrod hole had not been drilled correctly by the factory. The last 1/8 inch at the very bottom of the hole was reduced by about .050". This, at high RPM, was causing the pushrod cup to wear, allowing the ball and socket to disintegrate. Thirdly, not all pushrods are created equal. Some have a narrow ball radius and some have a mushroomed ball radius on the down side end. When the valve lash is set the mushroomed ball radius on the down side end. When the valve lash is set, the mushroomed radius locates the pushrod into the lifter cup pretty snugly, where the narrow radius allows pushrod to dance around quite a bit. This allows all the pushrods to rub somewhat in the pushrod holes at high RPM despite that they had not during measuring and assembly. So the conclusions I have come to are that for the time being I will use Crane push rods for they have a mushroomed radius ball, and I will return to Titan rockers that have never given me a bit of problem since 1984, and I do not care if the motor smokes a little on over-run because I have little to much oil in the valve train.

Race report, the first race of 1994 has come and gone. It was a Double National at Phoenix International Raceway. Joe Huffaker Jr drove the Foretech Mini. The weekend started out pretty rotten. I hadn't been feeling too well health-wise, and of course when I buckled into the car things didn't get any better. Actually it worked out quite well, me not feeling well and Joe's inexperience in the car was a perfect match. For both races we qualified right together. For Saturday's race I felt my worst. I got a really bad start, I wasn't sleeping it was just bad. To make things worse, Joe and I had qualified in front of a lot of straight-line speed cars, so at the start they all flew by me and I ended up with two of them between me and Joe. On the third lap, in an effort to get by those two, I made a move that put my CV joints in jeopardy. One of them broke, so I became one wheel drive. I finished the race that way, all 25 laps. Let it be a testimony for the Tran-X diff. I could not have run that many laps on any other diff...Period. In Sunday's race I got a good start but the cars from behind was the same story. I got back around them on the first lap, sensibly this time! Then when I went to downshift for the first time the Trans locked in fourth, and when it did unlock, it jammed in second. It seems I had my first 50 cent failure. The bush that the external shift rod runs through had come un-fitted.

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