

tranny rebuilds

Posted by tcomeau - 27 Sep 2012 08:00

Hey guys,

Our trannies usually die due to ring and pinion failure. We just replace the whole tranny with one that works and get back to racing. I have at least a dozen trannies in the shop inventory that have a broken R & P. I've been trying to find someone who can CNC new parts cheaper. No luck. Porsche has the R & P sets, but they cost \$947 to the average guy on the street.

So.....Is there any interest in a group purchase to get the cost down? Anyone else sitting on trannies? Shops?

Thanks

Re: tranny rebuilds

Posted by ChuckS - 28 Sep 2012 09:41

Thanks Tim!

Joe, Temperature can be a contributing factor. Your solution is very interesting.

I have some interesting observations. I don't have a trans temp guage on my Spec yet, but I do on my Race Turbo S. That trans takes a lot more abuse and should see higher fluid temperatures. I currently have a trans in without a trans oil cooler. Without my front splitter on, I have RARELY seen trans temps over 240F, even at SoCal desert tracks. Normal is around 200-210. However, if I am running the splitter and wing, the airflow under the car is reduced so much that I have had to slow down when it shot above 275F for fear of damage. So, cooling is critical, but on an NA Spec car, I would guess that it is not a big problem as long as you are running a quality trans fluid like Swepco.

Re: tranny rebuilds

Posted by joeblow - 28 Sep 2012 11:16

Admittedly this car was a big turbo 944 track car so the power and use were different. I was seeing 250-300F with a standard 951 tranny with OEM LSD with 935 clutch plates and upped to an 80/80 split (a stock LSD would be worse as it will be slipping more and creating heat).

The entire tranny looked great except the R&P which was bluing and wearing, even with a very good mesh. The bearings were changed and a new R&P (new OEM not used or aftermarket) installed. After

two weekends (same temps) the new R&P was showing bluing again and wear was starting. So we pulled the stock oil drive and cooler and installed a Tilton pump with an aftermarket radiator style cooler. Temps dropped to 200-220F and the bluing did NOT increase. We went the remainder of the season and pulled it again and found the wear had increased as had the bluing but not as bad as before.

We then got a new non cooler side plate and drilled and tapped the tranny case for a spray jet return onto the R&P mesh point, another new R&P went in. We also added 100 HP and bigger slicks and a solid puck clutch disk. We then ran the entire following season and the R&P looks like the day it went in. Seemed pretty clear to me that spot cooling and spot lubrication was the trick.

We used Swepco fluid, carried an extra liter of oil, and ran all the standard track aero goodies (big wing, front spoiler/splitter etc...). The car made 300HP the first year and 400HP the second year. We did go through a half a dozen rear axles in year two though!

ChuckS wrote:

Thanks Tim!

Joe, Temperature can be a contributing factor. Your solution is very interesting.

I have some interesting observations. I don't have a trans temp guage on my Spec yet, but I do on my Race Turbo S. That trans takes a lot more abuse and should see higher fluid temperatures. I currently have a trans in without a trans oil cooler. Without my front splitter on, I have RARELY seen trans temps over 240F, even at SoCal desert tracks. Normal is around 200-210. However, if I am running the splitter and wing, the airflow under the car is reduced so much that I have had to slow down when it shot above 275F for fear of damage. So, cooling is critical, but on an NA Spec car, I would guess that it is not a big problem as long as you are running a quality trans fluid like Swepco.

=====

Re: tranny rebuilds

Posted by AgRacer - 28 Sep 2012 18:19