The Tech Line

by Joe Holzer for Publication in CNY-PCA Redline Report http://www.holzerent.com

Oil Concerns

The May 2007 issue of *Excellence* has an interesting TECH NOTE on a subject which may only just be on the radar, but can be extremely important to we Porsche Pushers. I have spoken with the original inquiry generator (Chris Kirby) and gotten a lot of insight, and hope to get some more from you readers as time progresses, which I will hope to verify and pass along to Chris.

At issue is an American Petroleum Institute (API) change in oil chemistry, specifically as it relates to non-oil additives designed to assure lubricating properties at high contact-loading points. The materials in question are Phosphorus (P) and Zinc (Zn), and the areas in question are really important for anyone who tracks their car, and may be for those who do not as well. The specific Porsche models especially affected are any of the air-cooled, but especially those with pushrods, plus the early 924 whose cam lobes were notorious for wearing at the tip, and the 944 type which have oil starvation at the main journals. It appears unfortunately that the data so far is only "tip of the iceberg", so collecting data and updates as more comes in will be done, but metal wear concern has been rising.

For now, the oil details can be found at http://www.lnengineering.com/oil.html At issue is a function of trying to help automakers meet the EPA requirements for Cat Converter life exceeding 80K mi. The P & Zn concentrations in API spec SL and earlier were higher than the new SM & SJ specs, and resulted in shorter Cat life due to contamination of the precious metals contained in the Cat. But their reduction has seemed to contribute to a thus-far undefined but likely higher frequency of engine failures as a result. And at the price of a Porsche engine, that is a REAL concern. The EOS referred to in the website is an additive available from GM dealers, and some commercial outlets, and suggests that GM has had some concerns themselves due to their engine designs.

Since most of us use our cars for multiple purposes, it may turn out that street stock is less of an issue. Or it may not, so Caveat Emptor. What appears to be known is that you might wish to closely examine the chart shown at the website above, and check your oil cans for the spec. It might also be advantageous for the gearheads among us to pay special attention to the cam lobes and rockers every time a valve adjustment is performed, to check for wear. Ideally, you should try to characterize your current status, then track any change as a function of the oil and driving type you follow over time, and report those through me or direct to Bruce Anderson at technotes@excellence-mag.com As I noted in my discussion with Chris, my personal preference has been Castrol Syntec because of the wide (at least initial) 5W50 viscosity spec suggesting greater thermal stability in air-cooled engines. (I use it in all my Audis and RV as well. Hmmm… ;-) But that might change as I learn more about the impact of these changes. I'll keep you posted.