

# TECH TALK by Tom Nadelhoffer

The January 10th joint Tech Session with the SEMGT club at Bob Wagner Motorsports was well attended with 37 club members braving the cold weather. Six or seven of these brave souls actually drove their MG's to the session. Bob had the door closed and several gas heaters fired up so the inside was quite comfortable. Bob's informative and entertaining presentation covered "Car Chemicals" including sealants, cleaners, lubricants, and additives. I'd like to thank Bob for sharing his knowledge and allowing us to "kick-tires" in his shop. Below is a recap of the information Bob provided on the various subjects (to the best of my note taking ability).

**SEALANTS** – most pre-1970 gas engines were designed as positive loss systems meaning they were designed to use and/ or leak oil and water. The machining wasn't as tight on the metal surfaces and the materials used to seal the surfaces was not designed or manufactured to today's standards. Adding a quart of oil every couple of tank of gas was not uncommon. There is nothing you can do today to stop a 40's -70's engine from leaking oil. The government changed the rules in the '70's and required the engine manufacturers to seal the engines up tight. Most modern engines don't leak a drop of fluid for a pre-designed time. The surfaces are flat and the sealants are able to bond and therefore, provide a tight seal. Unfortunately many of the products they use have relatively short life spans, thus causing catastrophic failures when the sealants wear out. When silicones first came out everyone thought it was a cure all and used it to seal everything. Unfortunately the original silicone didn't have a very long shelf life and your surface had to be completely free from oil.....a pretty difficult task on a British car. The newer silicones have improved and new specialty silicone products have been developed. One of the specialty silicones is Dow 730. It's a fluoro-silicone impervious to gas and oil making it an excellent choice to use for sealing fuel sending units. Two issues with it however, are it only comes in white and costs \$100 for a 3 oz tube. Bob also said he still uses Permatex "Old Black" as a sealant for various applications and is very satisfied with the Loctite product line. He particularly likes their anaerobic sealers for flanges and threadlocks. While on sealants the subject of head gaskets came up. Bob uses Cometic head gaskets on his race engines. Cometic gaskets are US made and have an aluminum sheet sandwiched between foam on each

side. A really good machined surface is required. Cometic does make their MLS gasket for our MG's, but it's a bit expensive at almost \$100. Bob said unless we were building a race engine a standard Payen head gasket would work fine for our MG's.

**CLEANERS** - Many products we've all used through the years have now been declared unsafe to use and illegal to purchase. We can still get mineral spirits and it still works pretty good as a parts cleaner. They have recently developed some very strong soaps. Purple Power works well for a parts cleaner. ZEP makes Formula 50 which is a heavy duty all purpose cleaner and degreaser. It's a blend of biodegradable , synthetic detergents augmented by alkaline builders and a water soluble, grease dissolving solvent. Plus it's blue and smells pretty good. Be careful though because some eco-friendly products are just junk. Ultrasonic cleaners for small parts work well. Spray brake cleaner from O'Reilly's works pretty good as a degreaser. Lacquer thinner can be used as a substitute for carburetor cleaner. Always use paper towels to dry whatever it is you are trying to degrease as shop rags always have a grease residue in/on them. Remember...clean, dry with no oil residue before applying most sealants. PERCAUTION should be taken when using cleaning solvents. Always wear gloves, glasses and a mask or respirator.

**LUBRICANTS and ADDITIVES** - for the most part the ZDDP problems have been ironed out. Most of the 20W50 oil we use in our cars has a sufficient amount of ZDDP in it. Stay away from oils that have a 10 in them like 10/40, 10/30 as anything with a 10 has a very low zinc phosphate content. Oils like Kendal GT1, Vavoline VR1 and Shell Rotella 15/40, all have ZDDP in them and work well in our cars. Also some of the collector car and high mileage brand oils will also work. Regarding using a ZDDP additive...Bob says use the correct oil instead of using an additive. Now on to gas. Most of us can't really buy the gas we need to run in our cars. It's either too expensive or hard to get. Most of us are stuck putting ethanol gas in our cars. Ethanol gas not only attacks the rubber and plastic components of fuel delivery systems it also causes excessive rust deposits in those same systems. Rubber seals, hoses and plastic fuel filters are all attacked by the ethanol. Before ethanol gas we were told to fill our gas tank completely up to avoid moisture build-up and the resulting rust during prolonged storage. Now, with ethanol gas you need to completely empty your gas tank... running your fuel pump, lines, filters and carburetors dry in order to minimize the

moisture build-up/rust. Bob agreed both the marine and ethanol versions of Stabil work fine for helping to maintain the gas over prolonged periods. The best prevention is to drive your car!!!!

Thanks to Scott Sewell for coordinating this Tech Session. Thanks also to the clubs Historian, Larry Norton for all the pictures of the Tech Session and the various cars in Bob's shop he's posted in The Registry.

## FUTURE TECH SESSIONS

Date	Location	Subject	Host	Instructor
21 FEB*	Chequered Flag	King-pin assembly	Scott Bohannon	Scott
21 MAR	TBD	Color sanding, buffing, detailing	John Scarpucci	Bill Gillson
11 APR	British Car Service	Spring Tune -ups	Barry Rosenberg	Barry & Craig
23 MAY	Chequered Flag	Thrust Washers	Scott Bohannon	Scott
22 AUG	TBD	TBD		
26 SEP	TBD	TBD		

\*The February 21st Tech Session will be hosted by Chequered Flag Automotive, 900 Sun Valley Dr, Roswell, Ga. The tech session will cover the replacement of the king pin assembly on Bob Anderson's MGB. PMGR Co-Technical Director, Scott Bohannon will be the subject matter expert /instructor. The session will start at 9:00 am. We will have the time to perform the same king pin assembly replacement on a second car. All we need is the second car. This also would be a good time to replace any of the following: front wheel bearings, front shocks, lower control arm bushings or front springs. Please let Tom Nadelhoffer know if you want your MGB to be the second "patient" no later than Feb 6.

The above dates are all entered in the club calendar. We can also add dates as needed. If you are able to host a tech session and/or have a specific activity you'd like to do to your MG or would like to volunteer as a trainer/subject matter expert please send Tom Nadelhoffer an email at [blueb@bellsouth.net](mailto:blueb@bellsouth.net) with the details or give him a call at 770-887-8877 to discuss.

