



CALENDAR OF EVENTS

January 29 6:00 p.m.
General membership meeting at Mario's Restaurant, 2401 San Pedro NE, in Albuquerque.

February 19 6:00 p.m.
Tech session. SpeedLab specializes in turbos, blowers, NOS, and other performance upgrades for BMWs. They are located at 1900 Eubank NE in Albuquerque.

March 25 General membership meeting. Location TBD.

April 25 Spring tour to Lincoln, NM. This will be a day trip to a beautiful and historic site, with a guided tour of Lincoln at 1:30 p.m. Andy Rutkiewicz will be the coordinator for this trip.

May 2 Clean Car Show. Election of NM chapter officers.

June Tech session; details to be announced.

PRESIDENT'S MESSAGE

Happy New Year to everyone! 2004 has arrived. Winter is gripping most of the U.S. with major cold and major snowfalls. All of this seems to have bypassed New México (much to the dismay of ski enthusiasts). Winter, what winter?

This quarter we had two fabulous tech sessions! The November session was at Southwest Collision Craftsmen with Manny Córdova. The December session was at the all new Sandía BMW. See the reviews inside this issue.

Longtime member Bob Kauffman has started a series of monthly Sunday evening get-togethers, called Sonic Bimmer Burger Nights. These are simply an opportunity to meet and talk about cars. They are not intended to be an official BMW CCA event, and no chapter business is discussed. Bob will send out an email a few days in advance.

On January 29th (Thursday) we will have a NM chapter membership meeting at Mario's Restaurant in Albuquerque. We will be discussing plans for the upcoming year.

We are planning a February 19th tech session at SpeedLab in Albuquerque. SpeedLab specializes in high-performance modifications, such as turbocharging, supercharging, Nitrous-Oxide, and more. If you are interested in knowing more about high performance, you should come. Thank you to Steve Nowaczek for making the arrangements on this meeting.

For the 2004 Spring Tour, we are planning a trip to Lincoln, NM. This will be a very scenic drive to an area that is very historic and beautiful. BMW CCA member Andy Rutkiewicz is putting together the tour, and will give us further details in April. He has arranged for a guided tour of Lincoln.

The 2004 BMW CCA of NM Clean Car Show will be Sunday, May 2, 2004. We will also have the election of chapter officers. Please come out and show off your BMW; you have 4 months to wash, polish and detail in preparation. Also, help nominate and elect the people who will choose the direction for the club during the next year. Please consider running for an office!

As always, please watch your e-mail, or check the website for details and updates. I hope to see all of you at one of our upcoming events!

Jon van Arsdel
el Presidente
BMW CCA of NM

Remember to check our web site for periodic updates: www.nmbmwcca.org

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Recent Tech Session Info

November Tech Session

The November 13th tech session was held at Southwest Collision Craftsmen, and was hosted by owner Manny Córdova. Manny talked about new car safety features, and had several BMW's on display to demonstrate, including a new 5-series. Manny also displayed various body repairs, both minor and major. The excitement for the night was when he blew up an airbag. As all of us learned, airbags are amazingly loud, and pack a lot of force. All of us also got a tour of his well-equipped shop. As usual, this was a very interesting and educational meeting.

December Tech Session

The December 11th tech session was held at the all new Sandía BMW on I-

25. Service Manager Jim Johnson was the host, and was assisted by Shop Foreman Peter Limone. All-wheel-drive was one of the major topics of discussion. Jim had an X5 and the all-new X3 on the lift for demonstration purposes. X-Drive is the name of the new BMW all-wheel-drive system in the X3. It is more sophisticated than the original systems employed in the X5, 325Xi, and 330Xi. Jim

also demonstrated much of the technology in the new 5-series. A 545is was the demonstration vehicle, and was equipped with active suspension, steering, and headlights (a salute to Preston Tucker?). A large group of 46 people attended the session. Photos are available at www.nmbmwcca.org.

Sandía owner Mike Houx was presented a special plaque of appreciation, for all his support over the years, of the NM chapter of the BMW CCA. Thank you to Bob Kauffman for arranging this gift.

Jon van Arsdel

Special Note

This issue of the Redline will be arriving in your mailbox about a week later than normal. Our address labels arrived from the national office a few days late due to the holidays.

Not-So-Special Note

This first issue of the new year also marks the inaugural issue of yet another newsletter editor. Steve Nowaczek has been gracious enough to oversee the Chapter Website, but he's been shouldering the responsibility of the newsletter while a search (plea?) went out for a warm body to fill the position. Steve caught me in a moment of weakness as we were riding the bus to Amarillo. I was feeling all giddy inside at the thought of driving a new Bimmer to Albuquerque, and two days later on to Scottsdale. I was thinking to myself, "This is too cool. I spend \$35 to get a great magazine, and now I get to do this? For FREE??? And they even buy me lunch? What have I done to deserve this?"

I crumbled when he mustered his best Bostonian accent and paraphrased a great leader (not you, Jon) as he browbeat me into submission. Yes, it was the old, "Ask not what your club can do for you, but what you can do for your club."

In all seriousness, I wanted to get more involved with the club. Some of you may know I sell VWs for a living, and that means I miss a lot of the meetings, especially the Saturday tours. I thought this would be a way for me to get more out of my club membership - by giving more to it. And it gives me something to do with all my spare time.

I joined BMWCCA a year and a half ago. Shortly after buying my CPO '99 M Coupe I was spending some quality time with Manny Cordova (through no fault of my own) and reading through his stack of Roundel magazines. Probably like many of you, that was enough to hook me into the club.

Oh, and the Komen Drive? You really should have been there.

Andy Sencak



Tech Tips

Making Sense of Synthetic Lubricants

Don Stevens / Courtesy of Pelicanparts.com

All of us have seen countless ads telling us to change our engine oil every 3000 miles. Some of us have watched the commercials showing cars driving on the racetrack with allegedly no oil or engines running on a stand while the host pours sand and gravel over an exposed valve train. Virtually all of the lube shops have some kind of magic additive that they will say you need. What are we to believe? Or more relevant, what is right for you? In becoming an Amsoil Synthetic Lubricants dealer in 1998 I have done a great deal of research on all kinds of lubricants and additives and in this article I will share the facts about synthetic oils, petroleum based oils, and additives so that you can make an informed decision about what is right for your cars.

Oil Classifications.

There are two systems for oil classification. The SAE (Society of Automotive Engineers) viscosity grade and the API (American Petroleum Institute) classification that designates the type of engines for which the oil was designed. The SAE viscosity grade is known as the "W" number when classifying oils. Most oils on the shelf today are multi-viscosity such as 10W30 or 20W50. In general, the lower the first number, the better the oil will perform in extremely cold conditions. Conversely, the higher the second number the better the oil will protect at higher temperatures. If you were driving to Minnesota in the winter you would want the lowest number you could find like a 0W30. In our Florida climate however, a 10W40 or a 20W50 would be a better choice. The API designation is typically an "S" designation for gasoline engines and a "C" designation for diesel engines. Most of today's oils carry an SH,CF or SJ,CF designation signifying that they are suitable for use in all gasoline or diesel automotive applications. Those of you with diesel trucks or motor homes should look for an API CG-4 rated oil. Which brand you buy is largely a matter of preference. Consumer Reports (6/97) found very few differences between major brands of oil and all with the above SAE and API designations performed fine in normal applications.

Synthetic vs. Petroleum based oils.

Synthetic oils were originally developed more than 50 years ago and became widely used in jet engines. Less than -120°F ambient temperatures, 60000 shaft rpm, and 500°F exhaust temperatures proved too much for conventional oils. Synthetics were created specifically to withstand these harsh conditions and to date every jet engine in the world uses synthetic lubricants. Amsoil introduced the first synthetic oil for automotive use in 1972 and have continued to be at the leading edge of development ever since. Mobil 1, undoubtedly the most recognized name in synthetics, was introduced in 1976. Many companies have jumped on the bandwagon and have since released

synthetic lubricants for automotive use and all are becoming increasingly popular for their superior lubricating properties, superior ability to flow at cold temperatures, and their ability to withstand high temperatures for extended periods of time. Several new cars including the Porsche 996 and the Chevrolet Corvette LT-1 are delivered with synthetic oil in the crankcase and require synthetic oil use throughout the life of the car.

There are two primary differences between synthetic oils and conventional petroleum oils. These are the base stock or liquid that makes up the volume of the oil, and the additive package. There are additives (not to be confused with over the counter additives which will be discussed later) in all oils that enhance the wear resistance properties of the oil, enhance the ability of the oil to neutralize acids and combustion by products, and provide corrosion protection for the engine's internal surfaces. The amount and quality of these additives vary from one oil brand to another and this is a very significant factor in the ability of an oil to adequately protect your engine in all driving conditions. As a general rule of thumb, the cheaper the oil, the fewer additives it has and therefore, the less able it is to protect your engine.

There is one school of thought that suggests that the only difference in synthetic oils vs. petroleum oils is that the synthetics typically have a better additive package. This statement is only partially true. Synthetics almost always do have superior additives than petroleum oils. While this does add to the cost of the oil, it also enables the oil to last 3-5 times longer than conventional oil. The synthetic base stock however, is of paramount importance in the ability of a synthetic oil to flow at cold temperatures and withstand greater amounts of heat over significantly longer periods of time. Petroleum base stock molecules are long carbon chains that are sensitive to stress and heat. Additionally, various paraffins that are contained in all petroleum products regardless of how well refined they are, cause oil to jell like a syrup at extremely cold temperatures. At the other end of the temperature spectrum, high engine temperatures and heavy loads (as typically found in towing or racetrack applications) cause these chains to break down and the base stock actually boils off causing a change of viscosity and the formulation of sludge. This can happen at temperatures as low as 230° F and by 250° F many petroleum oils are suffering significant breakdown. Synthetic oils on the other hand are engineered specifically to provide all the lubricating properties that natural oil possesses, but none of the cold thickening or hot thinning properties of petroleum oil. Synthetics are made up of uniformly shaped molecules with shorter carbon chains which are much more resistant to heat and stress. Synthetics can withstand temperatures of 300°F all day long and still protect your engine. In fact the American Society of Testing Materials (ASTM) standard wear resistance tests are conducted at 302° F. In this test synthetic lubricants far out perform petroleum lubricants by factor of four to one and greater.

Oil temperatures of 230°F to 250°F are not at all uncommon in driver's education track conditions, particularly in early 911s with no front coolers or the marginally effective "trombone" oil coolers. These temperatures are also fairly common in air-cooled engines in summer time stop and go traffic with the A/C on. Further, temperatures on the cylinder walls and in turbos are

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OIL (cont.)

often over 450°F for short periods of time. Liquid cooled cars can also have extremely high oil temperatures even though the water temperature may be normal. I observed this first hand several years ago in a race car where the water temperature stayed right on 210°F while the oil temperature fluctuated between 240° F and as high as 280° F depending on how hard the car was driven. Needless to say, this particular car was running synthetic oil and remarkably ran about 50 hrs. between rebuilds with no significant wear. Further, Winston Cup star Rusty Wallace was recently quoted after the 2000 twin 125 races in Daytona that his car was running a little hot with water temperature at 230° and oil temperature at 260°F. Rusty's team is sponsored by Mobil 1 and I would think it is safe to say that they use the product.

The point of the above paragraphs is quite simply that synthetic oils have a much wider operating temperature range, by design, than petroleum oils.

Off The Shelf Additives

There are countless over the counter oil additives on the market, as there have been for a number of years. In recent years a number of companies have appeared on the scene with huge national television advertising campaigns, racecar sponsorship, and more, all designed to make the consumer believe that the products really work and you are doing yourself a favor by adding these to your car. The fact is that these products are not necessary, do very little to help your engine, and in many cases may actually do more harm than good. The major car companies do not endorse any of these products and in fact your owner's manual will undoubtedly advise you to avoid them.

Consumer Reports did a test (10/98) in an attempt to verify, or rebuke, one company's ad which claimed that their product "bonded" to the engines moving parts forming a protective barrier against wear. The ad claimed that their test car ran without any oil all over Southern California, in stop and go traffic, with the air on, for 4 hours and 40 minutes. The ad also claimed that the only reason the driver stopped was to get something to eat. Pretty unbelievable. In an attempt to prove or disprove the viability of the ad, Consumer Reports tested two Chevrolet Caprices, both with identical zero time rebuilt V6 engines. Both cars were broken in with normal petroleum oil per the manufacturer's recommendations. The oil and filter were then changed with one of the cars receiving the prescribed dose of this magic additive. Both cars were then driven for about 100 miles, allegedly long enough for this magical bonding to occur, and the oil subsequently drained. Both were then driven again, now with empty crankcases, in normal traffic to see how long they would last. Interestingly both engines failed, almost simultaneously, after about 14 minutes of driving thus proving the claims of the additive manufacturer to be nonsense. Consumer Reports notified the FTC of the test and their results and the manufacturer was subsequently forced to stop running the ad.

There are some over the counter additives that contain Teflon or PTFE. Once again the ads claim that the Teflon bonds to the internal working parts of the engine forming a slippery surface (like your Teflon frying pan) and therefore reducing

wear. Fundamental laws of Physics prove that such claims are impossible, as the temperatures in internal combustion engines (200°-250°F) are insufficient for any bonding to occur. Further, independent oil analysis labs have observed that the suspended Teflon particles actually tend to accumulate the microscopic metals that are normal in engine oil formulating much larger, and potentially much more harmful, deposits in engines than would normally occur if straight motor oil had been used. In some cases, the oil filters became clogged, oil pressures dropped across the filter and oil analysis showed significantly more wear than oil alone. Similar to the previous situation, the FTC challenged the makers of products with PTFE on their claims of "coating of PTFE" and "reduced engine wear" based again on Consumer Reports findings of "no discernible benefits" from use of the product. The makers of these products agreed with the FTC in a settlement to stop using the above phrases in their ads.

Economics of Synthetics vs. Petroleum Lubricants

All of the manufacturers of synthetic oil tout the benefits of reduced wear, more horsepower, lower operating temperatures, and improved fuel mileage. All of these benefits are derivatives of better cold flow characteristics and higher levels of friction reducing additives that are found in synthetic oils. I can confirm better cold driving characteristics, increased fuel mileage of nearly 10%, noticeably lower operating temperatures, better heat dissipation capability, and long term high temperature stability based on my own experience with synthetic lubricants. Are these benefits enough, however, to persuade average drivers to give up their trusted petroleum oils and pay the extra price for synthetics? Enthusiasts, yes. Average drivers, perhaps not. However, synthetic lubricants can endure extended drain intervals, which is a major consideration toward justification of the higher costs. This benefit is not widely promoted by the major oil producers most likely because they want you to pay a premium for their synthetic oils every 3000 miles just like their regular oils. Most companies don't bother to tell you that synthetic oils are capable of going 25,000 miles or more without significant breakdown. One customer told me he drove his Toyota more than 50000 miles (with filter changes every 10000 miles) before oil analysis results told him it was time for a change. It is not uncommon for over the road truckers to go several hundred thousand miles between synthetic oil changes. The short trips and stop and go city driving that most of do is much tougher on motor oil than over the road highway driving. In fact, frequent short trips (2 miles or less) and stop and go city driving is considered by some raters as extreme and our cars need increased protection. Fortunately, we can achieve the superior protection and the economic benefits of synthetic oils while staying within the recommendations of our car manufacturers.

Consider the following economic argument. If you change your oil every 3000 miles at a quick lube center at an average price of \$23.00 per change, you spend \$115.00 over 15000 miles. Most synthetic oil changes cost about \$50.00 (much less if you do it yourself) on which you can drive 7500 miles very safely (a 7500 mile interval is within virtually all manufacturers recommendations). Over the same 15000 miles, only two oil changes are required for an investment of \$100.00. A shop could charge up to \$57.50 and it is still a break-even proposition. *(cont. next page)*

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CLASSIFIEDS

Classified ads are free for NMBMWCCA Chapter members. Only BMW cars, parts, aftermarket ad-ons will be published. All ads will run in one issue and will be removed unless a request is made to run the ad again. Member number must be included in all submissions. Please submit all ads to editor@nmbmwcca.org / subject: Classifieds.

BMW's For Sale

1977 320, ex-IMSA GTU car, fully restored and updated where possible, dry-sumped 2.5L M3 engine, close ratio 5-spd, quick change diff w/13 gear sets, 2 sets BBS wheels w/slicks and rains, as seen on p73 of Sept '02 Roundel, fiberglass hood, rear deck, doors, and large flared fenders, \$28K. Photo at <http://f1.pg.photos.yahoo.com/bmw320@prodigy.net> Club or vintage racer. Please contact me at bmw320@prodigy.net for further information.

Parts For Sale

Traded my 328 E36 for a 530i E39 so now my toys don't work any more...**PRCR5FCX PEAK Reset/Code Scan Tool:** \$110 Bentley **Service Manual** (E36 3 Series) \$50 Contact Steven 505-839-4216

Remote Snooper Shadow Radar Detector. Removed from my 2000 323 Ci prior to sale for transfer to a new Porsche Cayenne. But would not fit the Cayenne with out major (read very expensive) body work! All parts complete. A great unit since it is very sensitive and almost undetectable from inside the vehicle. New cost installed by BMW was \$1200. Will sell for \$250 o.b.o. Call Axel 505-992-2999 or 992-1927. Email Tuanputh@aol.com.

2002 Rocker panel for sale: Drivers side (left) rocker panel, brand new never installed. Asking \$50 (505)853-6216 (Albuquerque) Don dgnrg@nmia.com

FOR SALE. Have builders, parts cars, and complete running cars, 2002, Tii, 323 E21, 325 E30 & E36, e12 530, E28 533, (635 for parts) still has engine and auto trans 79kmiles Yr 1987 model, 1989 525 complete. Please call Skip @ 505-256-3371 for parts and information on repairable or running cars. Also have others not listed. Email: skipsbmw@webtv.net

Foreign Affairs

April 16-19 3rd Annual Pacific Sharkfest in Paso Robles, CA. Contact: Paul@pacificsharkfest.com or 831-595-5194.

May 8, 2004 Vintage at the Vineyards - a gathering of 1980 and older BMW motorcars at Westbend Vineyards. This is not some snooty concours event, but more of a come-one-come-all gathering of people with the same addiction . . . old bimmers. Whether your BMW is a frame off restoration, or sports faded paint and a few rust bubbles, you are more than welcome to attend. The display area will be reserved for BMW's of 1980 vintage and older; race cars are welcome. Registration is FREE, and there is no charge for spectators. The event site is Westbend Vineyards, in Lewisville, NC. For more information about the winery and directions to the event site, visit www.westbendvineyards.com . The host has offered a complimentary bottle of wine for each of the first 40 cars on display. During the afternoon there will be a short rally on the

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(OIL cont.)

tion, plus you put a superior product in your car and are receiving the additional benefits that synthetic lubricants can provide. I typically drive about 12000 miles between changes with a filter change and oil analysis at 6000. Even after 12000 miles oil analysis advises that the oil is "suitable for continued use" and typically the wear metals are less than conventional oil after 3000 miles. In fact in a test performed by Popular Mechanics some years ago, oil analysis showed in New York City taxicabs that there is typically less oil breakdown and less wear metals in Amsoil 10W40 synthetic oil after 60000 miles (albeit with filter changes every 6000 miles) vs. conventional 10W40 oil after 3000 miles. As an added benefit, less waste oil is being put back into the environment. A true win-win proposition.

Conclusion

Most major brand name petroleum oils perform adequately provided your driving conditions are normal and provided you change the oil regularly (remember, short city trips, driver's ed track events, dusty conditions, and towing are considered extreme). Over the counter additives have been proven to be of little to no benefit, often do more harm than good, and are a waste of money regardless of what you drive and how you drive it. Finally, for those of you who drive your vehicle hard, tow a trailer, drive very short distances, sit idling and in stop & go traffic for long periods, live in a cold climate and/or if your car runs hot, quality synthetic motor oil, synthetic gear lube, and synthetic automatic transmission fluid is a wise investment that will provide the additional protection you require as well as last thousands of miles longer than conventional lubricants.

Don Stevens is a mechanical engineering graduate of the Ohio State University and has been a member of the Suncoast Region of the PCA and BMWCCA for 14 years. He is also a 10-year veteran road racer/driving instructor with hundreds of hours of seat time and several endurance race wins to his credit. For more information on lubricants, oil analysis or for a free catalog on the complete line of Amsoil products, please call or e-mail the author at 727-724-3431 or P911sc44@hotmail.com

twisty country roads of the area to have fun and enjoy cruising with the other BMWs on hand. There is also a long distance award (so keep track of your mileage), and the coveted "Patina Award" will be given to the car with...well...the most patina.

If you are interested in representing the New Mexico Chapter with your vintage BMW, contact Scott Sturdy at (336) 773-1809 or stur1809@bellsouth.net.

RMC spring driving school date change

Due to SCCA conflicts, the date has been changed from May 1-2 to May 22-23. Register in early April at <http://rmcbmwcca.org>. Contact Bob Sutterfield - bob@xc.org.



Join fellow enthusiasts for
Burgers and Chat!!
3rd Sunday of every month 4 - 6pm.

Sonic Drive In
5000 San Mateo NE
(between Montgomery and
McLeod on the east side of San
Mateo)

Not a NMBMWCCA event.
Everyone welcome.

NEW MEMBER WELCOME

Aas, Chris	10/07/03	Averna, Justin	11/03/03
Cavazos, Tommy	10/30/03	Nash, Stephen	10/03/03
Nevans, Joe	10/27/03	Reeder, Robert	10/30/03
Schaller, Udo	10/27/03	Sergeant, Michael	10/30/03
Sweeney, Ken	11/18/03	Ritter, Robin	12/08/03

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