

INSIDE

Calendar of Events Nuts and Bolts Rambling Ruminations Tech Tips

596*81*12*4 MR. JAMES A MINER 3308 BLACKBERRY LANE DAVIDSON MD 21035 BULK RATE U.S. Postage PAID Arlington, Va. Permit 42314

Next Meeting

October's big event is a tour to Catoctin State Park on October 18th, led by our own Jim Ryland. We plan to leave the McDonald's located on Rt. 197, 2 miles west of the Baltimore-Washington Parkway around 9:15am, so come early and meet us for breakfast. Bring a picnic lunch and enjoy a nice fall day.

Important! The tour is not limited to only BMWs. Some members no longer have their cars, or they are not running well, it doesn't matter. Bring whatever car runs!

ON THE COVER

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YOU are the staff of Der Bayerische. Please write for It. Anything to do with the car, from wax to transmissions, service problems or solutions. Articles sent to the editors by the 15th of the month will be printed in the next issue.

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Our picnic on September 13th at Summit Point was not exactly over crowded. Seven cars showed up and those who did make it had a good time. Our meeting on September 17th at Car Stereo Systems was attended by over forty members on a very rainy night. We saw some very expensive stereo setups and the club store did a booming business. One member noted that it was the first meeting that he had attended that the club did not provide beer or wine. He missed the most recent tech session where we also did not provide beer. Is this the new image of the club? Maybe that's why we lost the beer drinking challenge last year at Blobs - we had not had enough practice. The beer drinking challenge will be renewed again on November 6th so start practicing now. Make sure you wear your polka shoes too.

For those of you who have been reading this newsletter for several months, the name of Jim Ryland is familiar for his numerous stories. I turned him loose to plan the tour to Catoctin. In previous newsletters you could buy his tour but now its free and it has to be a lot of fun knowing Jim's sense of humor. Bring a picnic lunch, a cool bottle of wine and some play gear. The driving time will be between 12 to 2 hours. We will meet at the McDonald's at Maryland Rt. 197 and Contee Road in south Laurel. You can join us for breakfast. Once you have your tour, its at your own leisure. See you there.

There's been a change for the November 12th meeting. The location has been changed to Grosvenor Park on Rockville Pike - the same location as the December 4th wine and cheese party. We have lost our meeting place in Columbia and we need a new place in the Baltimore area. How about giving me a call if you live in the Baltimore area and have some ideas for a meeting place. The best place would be close to the beltway or easy to find, serves food and drink, has space for 40 to 75 people and can be had for less than \$35.00.

We have already planned a two day driving school for Summit Point next May. We are going to throw a party twice as big as last year's. Start planning ahead now for a camping trip maybe. You don't have to enter the driving school to come to the party. You don't have to stay in a local motel or camp out to enjoy the weekend but it sure makes partying easier when you don't have to drive home.

In between our wine and cheese party on December the 4th and the driving school next May we will try to fill the calendar with something of interest. We are working on a controlled test of a new gas addative. The speaker for our November meeting is the president of a synthetic oil company which has already become controversial in the ROUNDEL. Maybe we don't always supply beer but we do try to make it interesting for you.

Bi11

O'FEST

I had the good fortune to attend the 1981 Octoberfest in August in beautiful Milwaukee. The city was a pleasant surprise as I had a preconceived notion that Milwaukee was a dirty industrial town. Not So! All along Lake Michigan are parks, beaches and Marinas, which housed literally thousands of sailboats.

The concours was held shortly after I arrived on Wednesday. This event was a real experience. I've never seen such immaculate BMW's. These people actually wax the interior paint in the engine compartment. There were no nicks, dings etc. The concours was a very enjoyable event, however, I wondered if the entrants worked for a living or maintained their Autos full time. This event was held on the lake with sailboats in the background and was very breathtaking. That evening was a barhopping tour of Milwaukee's finest

continued on page 4

3

continued from page 3

Pubs, of which there are 1500 or so I was told by a native.

Thursday was the second driving school at Milwaukees mirale mile. The course was half oval and half infield track. The badger bimmers did a fantastic job considering the facility and number of drivers. There was a very informative ground school which I would like to see incorporated into our Summit Point Schools. After the school I had a greater appreciation for our chapters Summit Point. No Armco or loose gravel. I only had an opportunity to drive 40 miles compared to 180 miles at the May 2 driving school. The highlight of my school was being chauferred by David Hobbs in the last ride of the day before the differential started to leak onto the hot muffler causing last quantities of smoke.

That evening offered workshops, continuous movies and product displays which were all very interesting.

Friday featured the rally through scenic Wisconsin countryside. Novices and experts seemed challenged by the course layout.

The Schlitz Beerfest had the best Buffet of Bratwurst, Kraut, German potatoes and roast beef I have ever had the pleasure of consuming, which I did in mass quantities.

Saturday's autocross presented a long and tough course. A combination of sharp turns and higher speed straights. An overlooking hill provided a birdseye view of the course, which made the autocross even more enjoyable.

That evening was the awards banquet, which featured a slide show by Yale Rachlin of the previous days events - A wonderful recap of memories.

Sunday was the IMSA Race at Elkhart Lake Road America about 60 miles north of Milwaukee. This is the most beautiful track I've seen there must have been 350+ BMW's in the Corral. In addition, beer provided by Pabst and excellent kratwurst for \$1.00 made the day a real experience. Approximately 300 people attended the 12th Octoberfest. Members who have attended many more than I stated this was the best ever and I believe them. The organization was inspiring! There were even security guards for our reserved parking spaces. Badge Bimmer thank you for an excellent five days.

Plan now to attend the 1982 Octoberfest in Albany, New York with the driving school at Lime Rock.

Gordon Kimpel

LAST MEETING

On August 29 VOB hosted an excellent tech session centered on their seimans diagnostic computer. The first step is to hook up the computer to your BMW. If done incorrectly the screen will tell you which wire needs attention. Once properly corrected the machine has all the specs for your year and model. You are able to test compression, engine efficiency, dwell, battery, coil, burn time by cylinder and emissions. I'm happy to report my car was within legal limits even though a few devices are possibly

There is a tape printout which prints in black if the component is within the allowable specifications according to BMWNA and prints in red if out of spec for you year and model.

The change of mechanic error is reduced substantially as he is able to immediately note the red ink. Another benefit is the customer receives the printout which confirms the work has been completed and the car is within the proper specifications.

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Heishman BMW, Inc. 3154 Jefferson Davis Highway

3154 Jefferson Davis Highway Arlington, Virginia 22202 (703) 684-8500 First, we would like to apoligize for some members receiving last months newsletter a little late. We had some distribution problems that hopefully have now been rectified.

This month's column is brief to allow space for a reprint from the Chicago chapter newsletter. Their editor's column brought up some points that I happen to agree with, and I would like to share them with you.

STRUCK OUT

That loud "thud" you heard a couple of weeks ago wasn't a sonic boom or a demolition crew at work. No, it was the sound of 500 chins hitting the floor as the Windy City BMW club members, this one included, read that <u>Road & Track</u> magazine picked the Ten Best Cars for the 80s without opting for even one of BMW's cars. In fact, as near as I can tell, BMW didn't get any votes in any of the categories and wasn't even mentioned in the story until the MI was picked as the Most Desirable Unobtainable, or some such silliness. So, to paraphrase the old poem, "there is no joy in Bimmerdom, mighty Munich has struck out."

What happened? Howcum no Bimmers?

Some might say that the editors of $\underline{R\&T}$ snubbed BMW because they don't like BMWs. Well, forget that nonsense. History has shown time and again that BMW could sell a refrigerator with four wheels and a BMW grill and the folks at R&T would lavish high praise on it.

Then maybe the categories were skewered against BMW. That doesn't wash either. BMWs could have been considered in five of the ten categories. Worse yet, <u>R&T</u> started their selection process by having each editor pick his ten best cars regardless of price.

So, my friends and fellow car nuts, somebody out there is trying to tell us something that maybe we don't want to hear. In my role as ex-editor, objective viewer of the BMW scene, and all-around provider of heretical thoughts, I will proceed to give you one man's view of what might have gone through the minds of the editors of <u>R&T</u>, as well through the minds of auto reporters in other high places.

I suspect that if <u>R&T</u> had picked the Ten Best Cars of the 70s, then one or two or three of Munich's machines would have had their picture in the August issue. The key words in <u>R&T</u>'s selection is the Ten Best Cars for the 80s. As you look to the 80s, BMW is still thriving on the formula that worked for them in the 70s. They have no diesel car. No turbo car. No front wheel drive car. No four-door, four-cylinder car. Many of these things may be forthcoming. But they're not here now. Compare BMW to the products from Saab and Audi (the cars which took the awards BMW might have won) and its plain to see 'which companies are on the leading edge of technology and which one isn't. As for quality, BMW's lead over the competition is narrowing, as noted in the <u>Consumer Reports</u> 1981 auto issue. Performance-wise, the 320i no longer reigns supreme, although it's no slouch. As BMW chases Mercedes, so too are the other guys chasing BMW. And they're gaining fast.

In the 80s, BMW will be contending with cars from Saab, Volvo, Audi, GM (don't ever sell the General short), VW, Peugeot, Renault, and the ubiguitous Japanese. Heaven only knows what might happen when the Japanese tire of beating Detroit over the head and decide to start building true sports sedans! The competition for the up-market sports sedan is getting nothing but tougher. <u>R&T</u>'s message, and one I received subtley from some other car publications, is that BMW is not ahead entering the 80s as they were entering the 70s. If you think about it, everything right happened to dow in the 70s. They were clever, competent, farsighted, and, of course, lucky (don't ever underestimate what a little luck does to the best-laid marketing plans). They rode the tide to success they probably hadn't dreamed of. What's more, they deserved it. Today several companies—Audi and Saab come to mind—are in positions similar to where Baw was entering the 70s. It would be a tragedy if BmW allowed its success to go to its head. The company was bankrupt once before. There's no rule against it happening again if the right decisions aren't made.

All this looks like so much drivel right now, of course. BMW sales in the U.S. are setting records in what is otherwise a truly dismal year for carmakers here. BMW resale continues high and the car is even in the Preppy handbook, of all places. And I have no doubt that the wizarus of Munich have some tricks up their technical sleeves to play on us in the coming decade. Hopefully 5 WW's performance in the 80s will be as good, if not better, than were the 70s.

But it never nurts to ask some painful questions or think heretical thoughts once in a while. In fact, it's downright healthy. I hope the ears in Munich and montvale are hearing what it is that <u>R&T</u> is telling them. Make Thompson

Calendar of Events

October 16

October 18

November 6

November 12

December 4

No-Frills El Cheapo Driving School at Summit Point Raceway, W. Va. (\$15.00)

Tour - to Catoctin State Park, Md. meet at McDonald's, Contee Road and Rt. 197, Laurel, Md.;8:45 a.m.;bring a picnic.

"Augustfest" at Max Blob's Park, Rt. 175, Jessup, Md. 8:30 p.m. (\$2.00)

Regular meeting at Grosvenor Park, 10500 Rockville Pike at 7:30 p.m. The complex is located on Rockville Pike, just North of the Beltway, on the left (heading North).

Christmas/Hannukah Celebration; Wine & Cheese Party at Grosvenor Park, 10500 Rockville Pike, Rockville, Md. 8:30 p.m.

continued from page 4

This Tech session was very well received by the attendees. Quite a few problem areas were covered and questions answered. Lothan and his assistants put on an excellent session - one of the best I've attended. Thank you Lothan!

Gordon M. Kimpel

Are you sure you can afford to own a BMW?

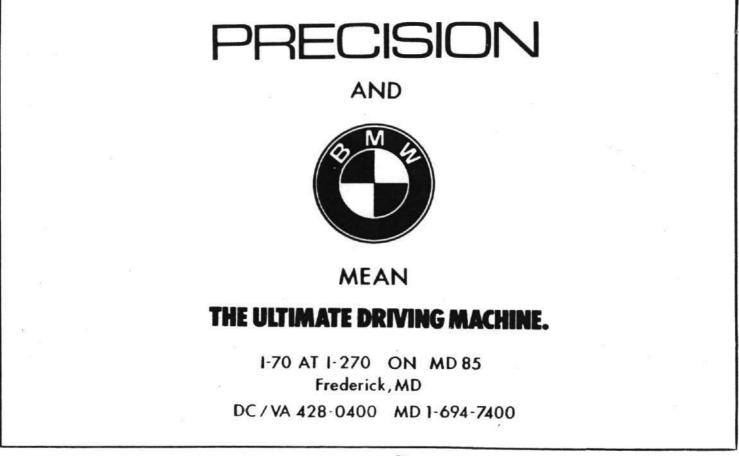
According to a BMW of North America survey of U.S. owners, the average BMW-owning family earns \$39,000 a year if they drive a 320i, and \$62,000 to \$100,000-plus if they she drives six-cylinder. The following is from a survey prepared as a sales tool for BMW dealers. It's about a year out of date now, but it gives you an idea of whether you're out of you're league, demographically:

	320i	528i	633CSi	733i
Average age	31	36	38	38
Avg household size	2.5	2.9	3.1	3.1
College grad (%)	38	34	28	34
Post-grad study (%)	32	38	47	38
Holds good job? (%)*	35	50	58	69
Median family income	39K	62K	*100K	95K
Multi-income family (%)	44	44	. 36	22
(*Defined as professional, s	enior or	midd	le-level	execu-
tive, or self-employed). 6330 \$100,000-plus.)	CSi owne	r's inc	come list	ted as

Nuts & Bolts

Regarding Bill Via's discussion on foam seats vs. spring/padding seats, I offer the following one-man's experiences foam seats are far superior to spring/padded set-up found in many cars including the 2002. My 1968 Volvo 122 had foam seats resting on elastic straps. These were the most comfortable seats I ever put it on including the new Peugeot 505 which are quite good - and they never changed shape summer or winter for 11 years though I did. The spring/ padding seats on the tii grew painfully lifeless after 5 years. I had these reinforced with foam a great improvement. Anyone wanting details can drop me a line c/o der Bayerishe-----Take a day off from work and clean your ENGINE COMPART-MENT. This will make you feel much better though your fingernails will be dirty for a week..... The Roundel is getting to be a very slick magazine. I for one would

continued on page 9





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continued from page 7

like to see more but shorter articles. Its amazing how many jobs you can do with the TOOL KIT supplied by BMW. Those few tools can take care of nearly every backyard project you can come up with. Don't leave home without it....Shop around for PARTS. Price differences of 100% are not uncommon. Remember, your Roundel and der Bayerische advertizers are your best bet....Even though its summer, don't forget to turn the HEATER on and off a few times a week to keep all the seals lubricated and controls working....Don't miss Raiders of the Lost Ark....Enjoy your BMW.

Jim Ryland

Rambling Ruminations

Turbocharging, promise and reality -The advocates of turbocharging contend that it enables a two-litre, fourcylinder engine, for example, to develop the power of a larger displacement six, while using less fuel. Thus, it is claimed, turbocharging is a practical way to retain performance oriented automobiles, yet meet the need for increased fuel economy. The validity of this contention seems questionable, however, if we examine what manufacturers have actually achieved through turbocharging gasoline engines, contrasted with the power and fuel efficiency provided by modern, larger displacement, non-turbocharged engines.

Consider the case of the 1981 turbocharged, two-litre, four-cylinder Porsche 924, and compare it to the 1981 Alfa Romeo GTV 6/2.5, which uses a non-turbocharged, two and a halflitre six-cylinder engine, as its designation connotes. The Porsche develops 154 hp @ 5500 rpm and torque of 155 lb-ft @ 3300 rpm while the Alfa develops an amazingly similar 154 hp @ 5500 and torque of 152 lb-ft @ 3200 rpm. Certainly, in this case, the claim of comparable power is justified.

A fair comparison of fuel efficiency, as well as of acceleration and speed, is a trickier problem and ideally ought to be done using the different

engines in otherwise essentially identical cars. However, the Porsche and Alfa are sufficiently similar in size, weight and effective gearing as to invite comparison. The Alfa, with a curb weight of 2840 pounds, is ten pounds lighter than the Porsche. The two cars have the same wheelbase of 94.5 inches, although the Porsche is longer by 1.2 inches, at 168.9, and wider by .8 of an inch, at 66.3. The Alfa, however, with a height of 52.4 inches, is 2.2 inches taller than the Porsche. Drag coefficient figures are not at hand, but the eyeball suggests that the Porsche has a slight advantage here. The final drive ratio for the Alfa is 4.10:1, and for the Porsche, it is 3.89:1; the gear ratios for the Porsche are 3.60/2.13/1.46/1.11/0.73 and for the Alfa they are 3.50/1.96/1.35/1.03/0.78. Now, then, how do these very similar cars do on the road in terms of acceleration, speed and fuel efficiency?

According to Road & Track (July 1981), the Alfa covers the guarter mile in 16.8 seconds with a terminal speed of 83 miles per hour: the Porsche gets there .1 of a second quicker, but is then running at 1 less mile per hour than the Alfa. The Alfa speeds from rest to 60 miles per hour in 9.1 seconds. while the Porsche needs 9.2; the Alfa's 0-80 miles per hour time, at 15.3 seconds, is also .1 of a second quicker than that of the Porsche. The Alfa reaches 100 miles per hour in 25.2 seconds or 1.1 seconds quicker than the Porsche, although the Porsche's top speed of 127 miles per hour is 2 miles per hour faster than that of the Alfa. Given these negligible differences in acceleration and speed, we turn to fuel efficiency. Interestingly, the trip fuel economy reported by Road & Track for each car is identical, at 19 miles per gallon.

No one claims that it is appreciably cheaper to build a turbocharged engine than it is to build a larger nonturbocharged engine that develops comparable power. Instead, if the job is done well, with due attention to the increased heat and stress and the attendant potential durability problems, the turbocharged engine may cost more to produce.

Q

Interestingly, according to <u>Autoweek</u> (August 10, 1981), Porsche has now developed a non-turbocharged 2.5 litre <u>four</u>-cylinder engine that, in European form, produces 163 hp, compared to the 170 hp produced by the European version of its turbocharged two-litre four, used in the 924. The speculation is that the new 2.5 litre engine will soon replace the turbocharged twolitre engine in United States models. Watch for it to appear later, however, in turbocharged form. It seems to be the current fad.

Meanwhile, the Bendix Corporation, bucking the trend, is touting the <u>supercharger</u> as the way to improve small engine performance and retain fuel efficiency. Among other things, it is claimed that the complete absence of "lag," associated with turbos, more than compensates for the constant small power drag that is necessary to run the supercharger.

None of this is meant to suggest that you shouldn't turbocharge or supercharge your BMW, or equip it with JATO rockets, if that pleases you.

Bill Via

Recommendations

I heartily recommend Tom Baruch at London Auto Service in Falls Church for mechanical repairs or structural work on BMWs. He has restored his own 3.0CS Coupe and is very knowledgeable concerning older BMWs, something I can't say for some dealers.

I brought Tom a list of items that needed repair, including a very sick transmission. Each item was correctly diagnosed, and fixed right the first time. The transmission was repaired for half the price of a rebuilt unit from a dealer. Tom has spent a lot of time discussing the car's problems and his. recommended solutions; all of which are aimed at saving me money.

Some of the car's structural problems will be corrected this winter. I'm sure that Tom will take care of whatever needs to be done in the most efficient manner possible.

Ira Winthrop

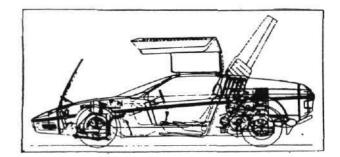
Tech Tips

A member recently inquired as to the rumor that a Polyglycoated car cannot be repainted without first stripping to bare metal. Apart from the obvious question "why would anyone put that stuff on a fine automobile", my experience has been as follows.

My 1978 320i came from "that dealer" complete with the aforesaid hundred and fifty dollar wax job. At the first service check, the dealer gouged the sunroof and dented a quarter panel, breaking out a dime-size chip of paint. Their policy seems to be not to inform their customers of such damage, but fortunately my wife spotted it before we left the lot. The car went to the dealer's contract paint shop, a group of insurance hacks located a few hundred yards down Lee Highway, who I can say in all fairness, redid the panels in the same color (although I suspect their electric toothbrush needed a new battery). For three years the paint has adhered, as has a somewhat more recent (and better quality) job on the opposite quarter panel, applied by Wagonwork Corporation (Not my fault either).

A <u>caveat</u>: all this presupposes that the Polyglycoat on the sticker was also on the finish. What was for sure on the finish was a large amount of cosmolene. Draw your own conclusions. Returning to the question "why?" For the price of that stuff, you can get a pretty good buffer and a lifetime supply of Blue Coral. And finally, for what it's work dept.: J.C. Whitney sells a product (I've forgotten the name) that purports to remove Polyglycoat for painting preparation. I have no experience with it.

Terry Fleming





BASIC MAINTENANCE OF COOLING SYSTEM

1. Check coolant level by opening radiator cap. Level should be 3/4" below filler neck. To add coolant--the engine should be running and at operation temperature so the thermostat will be open. The heater control lever should also be on Hot. If adding coolant to a hot engine, make sure engine is running so that coolant will not crack the block. The entire system holds about 7 quarts.

2. Check condition of hoses for cracks, leaks and soft spots. Make sure clamps are tight and free of corrosion.

3. Check condition of fan belt--should be snug (1/4-1/2" play)--check also for cracking and wear.

4. Radiator caps must be secure and fully tightened. The inner rubber gasket must be intact.

5. Check radiator for leaks. The fins should be clean, free from dirt and bugs. They should not be soft and brittle. To clean--spray a hose through the fins. A wire brush may do damage.

6. Check fan for excessive movement back and forth. There should be very little or no movement. Excessive play indicates a worn water pump.

The coolant should be a 50/50 mixture of antifreeze and water. This should be completely changed every 2 years. The concentration of anti-freeze can be measured with an inexpensive hygrometer. This should be checked every fall before freezing temperatures are encountered.

To drain the radiator:

A 13mm wrench is needed. Remove the 13mm bolt from the lower left corner of the radiator--drain into container.

To drain block:

A 19mm wrench is needed. Remove bolt from right rear side of block, about 6" below exhaust manifold and just beside the bell housing. It is not necessary to remove and drain this area if the system is going to be flushed.



Changing hoses: drain radiator

Remove clamps at both ends of hose using screwdriver. Pull off and replace with new hose and clamps if needed.

Flushing the system:

This should be done when changing your coolant or may help if there is a problem with overheating or lack of heat. It removes all the sludge and dirt that collects inside and block your heater core and radiator. This can be done by purchasing a Prestone flushing T, 5/8" or 3/4" depending upon the size of the heater hose between the cylinder head and the heater valve. This hose must be cut and the T fitted and clamped into place. An ordinary garden hose connects to the opening. Remove the radiator cap and turn the heater control valve to hot. The water will cause a reverse flushing of the coolant, forcing the dirty coolant out throught the radiator neck. Refill with a 50/50 concentration of antifreeze and water.

Problems with overheating or taking too long to warm up may be caused by a defective or sticky thermostat. This is located just in front of the water pump and has 3 hoses connected to it, one running directly to the water pump.

To chance thermostat, drain the radiator, loosen clamps and disconnect the lower hose, water pump hose, and upper hose. Remove thermostat and replace with new one. Refill radiator.

There is an excellent article in the June '78 Bimmer on troubleshooting and care of your cooling system.

BETH FORTE |

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5 5" stock 2002 wheels from 1972 2002 tie with 165-13 XAS tires mounted, 3 with good tread, 2 with fair. \$150 or best offer. 4 stock hubcaps - excellent condition - \$60.00

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WILTIMATES' BY BMW. GIFTS AND GEAR THAT REFLECT YOUR LIFESTYLE.

BMW Chrome Pen, Pencil Set **BMW Chrome Ballpoint Pen BMW Chrome Nylon Tip Pen** Cross 12K Gold Filled Pen Cross 14K Gold Filled Pen **Dual Motorsport Key Chain** Motorsport Belt Buckle Motorsport Key Fob Motorsport Paperweight Motorsport Golf Umbrella Motorsport Seat Umbrella Motorsport Automatic Umbrella **BMW Sterling Silver Key Ring** Carved Wooden Model BMW 3201 BMW A History (Leather) BMW A History (Deluxe) Canvas Tote Bag Barrel Bag Crystal Cocktail Set Flask, Black Leather Ceramic Tankard (Blue) State Brewery Mug Ladies Trevira Scart Crystal Ash Tray Ceramic Mug Pewter Cover Butane Pocket Lighter (Black) Butane Pocket Lighter (Chrome) Butane Table Lighter Ceramic Vase w BMW Cars Ceramic Vase w Munich Scene Ceramic Dish w Munich Scene Sunglasses w Case Motorsport Garment Bag by Lark

Motorsport Luggage Tags (Set of 3) BMW M1 toy car Radio-controlled BMW 3 5 CSL Men's Motorsport Parka (S. M. L. XL) Women's Motorsport Parka (S. M. L. XL) Men's Motorsport Jacket (S. M. L. XL) Women's Motorsport Jacket (S. M. L. XL) BMW Velour V-Neck (Unisex) (S. M. L. XL) BMW Hooded Sweatshut (S. M. L. XL) BMW S. S Knit Shirt (S. M. L) Men's White Fashion T-Shirt (S. M. L. XL) Men's Blue Fashion T-Shirt (S. M. L. XL) Women's White Fashion T-Shirt (S, M, L) Women's Blue Fashion T-Shirt (S. M. L) Racing Jacket w Piping (Unisex) (S. M. L. XL) Motorsport Anorak (Down) (S. M. L) Motorsport Pullover (Blue) (S. M. L. XL) Motorsport Pullover (White) (S. M. L. XL) Motorsport Cardigan Jacket (White) (S. M. L. XL) Cap. Blue (100% Wool) Adjustable Cap. White (100% Wool) Adjustable

MAIL ORDERS WELCOME. VOB AUTO SALES

JACKIE RANKIN MANAGER ULTIMATES BY BMW

770- 6100 * Set & Line



* And if you believe this, BMW of Great Britain has a bridge it wants to sell you. This ad ran throughout the U.K. last April 1—BMW's idea of an April Fools' Day gag.

CAUSE

Bimmer don'ts and causes

Conn. Valley Chapter

- DON'T Run 1/2 quart low on sil, nor over fill the sump. DON'T
- CAUSE The engine is oil cooled to a large extent, low oil level will result in high oil temperature. High oil level can result in a ruptured seal as the moving parts of the bottom end cause an extreme turbulance (thus dry sumps for performance machines).
- DON'T Rotate steel belt (or any other kind of belt-Ed.) radials from side to side on the car.
- CAUSE As a steel belt radial is "broken in," the belts shift slightly and DON'T this slippage is expected, but by changing the tires from side to CAUSE

side on the car reverses their direction of rotation and the belts would slip in the opposite direction; this second slippage can cause a slight separation between the steel belts and the tire can go out of round.

- I Insert spark plugs without some form of anti-seize compound applied to the threads. (Do not use motor oil --Ed.)
- E The head is aluminum, the spark plug shank is steel. Two dissimilar metals exposed to great heat changes will result in localized surface electrolysis and some movement of ions. Result is local welding and stuck threads and damage.

Go more than 90 days without changing your oil.

Hydrocarbon (oil) plus water (condensate) form carboxylic acid (ACID) which even Frantz toilet paper can't clean from the system.

Change oil without changing the filter, (or change oil with cold engine --ed).

Partially clogged filters slow the oil flow thru the fliter and increase the bypass flow (unfiltered)

Hold your car on a hill by slipping the clutch.

Clutch slippage results in heat dissipation difficulties for the flywheel and pressure plate (warpage), in addition to the abnormally fast wear (glazing) you'll be subjecting the clutch disk to.

hist add a couple of bucks worth of gas.

Partially empty tanks contain water vapor which condenses on the cool sides of the tank and the water droplets settle to the bottom to be carried to the fuel pump and carbs where they can wreak havoc. A full tank has no air pocket thus no water vapor. (Don't even ask about F.I. cars --ed).

Listen to me,

I've had 9 BMW's and cannot get one to work right.

15

Dan Patzer

	Membership Application
BMV	VCCA BMW CAR CLUB OF AMERICA, INC.
345 Harvard St. Cambridge MA 02138 617/492-2500	Please complete BOTH forms below and mail this application, along with your check for annual dues, to the BMW Car Club of America, Inc., National Office, 345 Harvard Street, Cambridge, MA 02138.
	For office use only
	Name Spouse
	Home Telephone
	Address Business Telephone
	CityStateZip
	BMW Model, Year
si w	I heard about BMWCCA from:
	(Check one) D No local chapter, dues \$15. D Local and national dues \$25.
	Check this box for Associate Membership 🗆 (please add \$5 to TOTAL)
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	Home Telephone
	Address Business Telephone
	City State Zip
62 M	BMW Model, Year BMW Model, Year
	I heard about BMWCCA from:
	(Check one). No local chapter, dues \$15. Local and national dues \$25.
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