

Drive-a-thon Tech Tips

Coming Events
 Rambling Ruminations
 Driving School Review

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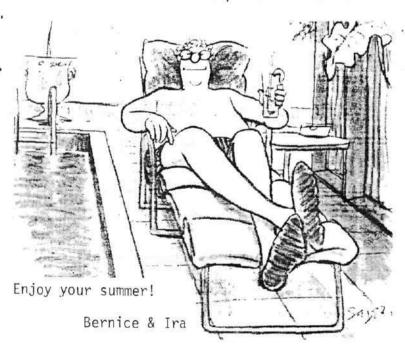
2762\*82\*12\*4 C. Eldred and W. Riblett 924 S. 28th Street Arlington, VA 22202

## COMING EVENTS

#### NTW Tech Session -- TIRES

National Tire Wholesalers will host a tech session on tires for BMWs on July 21, 1982, in Alexandria, Virginia. The session is scheduled for 8:00 p.m. to 10:00 p.m. and all members and their guests are cordially invited. The briefing will include: the tire manufacturing process; tire maintenance (e.g., alignments, balance and rotation); NTW's services and capabilities; and BMW's unique problems. The session promises to be interesting. Manufactures representatives will be on hand for questions and answers. You can expect tips on "knowing if you're getting a good deal". NTW will be serving refreshments and give away door-prizes -- free wheel alignment and a front-wheel tune balance.

The store is located at 2000 Eisenhower Avenue, Alexandria, exit 2 North of I-495-Telegraph Road. For directions call Jeff Cooper at 960-7025.



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#### SCCA SUMMER NATIONAL RACES August 18

The Chapter will sponsor a corral and participate in parade laps at Summit Point Raceway on the 18th.

> BMWCCA National Oktoberfest August 18th thru 22nd in Albany, New York. See past ROUNDELs for complete details.

## der bayerische

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On the cover: 1980 BMW 733i, photographed at the East Wing of the National Gallery of Art. Photo by Victoria O. Wiseman.

## President's Message

I find it hard to believe July is upon us! The year is progressing quickly and with success.

The dirving school in May had an excellent turnout under Bill Loftin's and Don Kellam's guidance. Over 35 enthusiasts drove each day. A delicious steak dinner was served to 120 members and guests. This was a most impressive show of faith considering Saturdays weather was monsoonish.

Our club was the very first to take advantage of the new asphalt pavement at Summit Point. This turned out to be a questionable benefit as the oil in the fresh asphalt had not yet worn off. This, coupled with heavy rain, made for some off track exploring among some members, including, yours truly. I was very impressed with my Goodyear NCT's in the wet and during my spins in the mud. The SCCA instructors called it "planting corn". On Sunday the sun dried the track of oil and water and the lap times came tumbling down.

On behalf of the club I would like to thank BMW of Fairfax for donating a generous door prize, a custom car cover. This was the highlight of the after dinner bonfire. Our secretary, Sally Young was the winner, after Bill Tucker decided a car cover was 12 years too late for his 2800. Sally wants to express her thanks to Dave Bohn, Parts Manager and Ralph Knieriem, Sales Manager for their help in ordering the

Heishman BMW once again continued their support by helping us with our tech session. Their mechanics came in on a Saturday to assist with the lifts and inspections.

If you have not attended a driving school I personally feel you are really missing one hell of a great time. Like other experiences, one can't describe the sensations (which reminds me of a T-shirt at Oktoberfest, "BMW-Second only to sex).

Please mark your calendar for Friday October 15, the date of our inexpensive (\$15-\$20) driving school

at Summit Point. We are also looking for a volunteer chairperson. If you're interested, call me.

Voyager Sound in Rockville, Md. hosted a delightful champagne brunch on June 12. Approximately 40 members experienced the quality installation and concert hall sound which is Voyager's trademark. I was impressed with the professionalism and enthusiasm of Paul and Rob. Their concern for a BMW being integrated with the appropriate system and their recommendation to add one component at a time convinced me to recommend them as the place to go for quality stereo work.

Looking to the future, brings us to the NTW meeting on Wednesday July 21. See our coming events column on page 2 for details.

I'm looking forward to Sunday, August 15 at Summit Point. The SCCA National is the premier racing event of the year. The club will have a corral. (safe place to parkno door dings), beer and soft drinks. This is the best SCCA racing of the year. We will have a slow parade lap in order to experience driving on the track. Bring the family.

Have you registered yet for the Oktoberfest in Albany NY? A large contingent of national capital members plan to be there.

Special thanks go to Bill Ross for his work on advertising in the der Bayerische. As you can see by the quality and number of ads his accomplishments speak for themselves. Bill has also set up a mailing system with Fairfax Opportunities to make sure your newsletter arrives on time.

Bernice and Ira Winthrop, our editors, continue to improve the quality of der Bayerische every month, even with a baby to keep them

Our club storekeeper, Alan Price, is being transferred to Greece in October. Alan has gotten the club store organized and well stocked with excellent bargains. Upon Alan's transfer, past president Bill Riblett will become the new store manager, and promises to continue Alan's fine work.

Have a nice summer,

## PERFORMANCE . . .

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### Editorial

We hope you liked our last issue, we did! It has taken a while, but we are quite pleased with the appearance and content of the newsletter. DER BAYERISCHE is now on par with any chapter newsletter. We want to make it even better, your contributions can do that. Remember, you do not have to be BMW's equivalent of Mr. Goodwrench. We will print just about anything that can get past our censors.

Have you seen MOTORWEEK, the video equivalent of ROAD IRACK? It is produced locally by the Maryland Center for Public Broadcasting and is a pretty good show considering it must appeal to an audience who is not very familiar with cars beyond turning on an ignition key. Road tests are performed on a measured course belonging to the Maryland Department of Transportation. Quarter mile acceleration runs, 500 ft. acceleration (the equivalent of 0-60 mph), braking distances and handling through slalom courses are all performed in the normal course of a test. In addition, subjective items such as comfort and value are discussed. In a recent test, a BMW 528e was found to be a very capable car, worth the estimated \$25,000 price. Summit Point Raceway was used to compare a Camaro Z-28 and a five liter Mustang by running timed laps to determine the best handling car. Other segments have included discussions of the merits and drawbacks of quartz headlights. The show appears on Thursday evenings at 9:30 p.m. on channel 22; give it a try.

We need some help in locating a suitable restaurant for our fall ethnic dinner, our chapter's version of Oktoberfest (called Augustfest for not so obvious reasons since it takes place in November). For the past few years, we have held it at Blob's Park, but the food isn't very good and we want to try a new place. It doesn't have to be German, but it would be nice if we could reserve up

to 50 or 60 places and had entertain-

ment. If you have any ideas, please give us a call.

A reminder to members with special interest cars such as Tii's or CS's. There are a number of special interest groups which are designed to cater to your particular interests and needs. These affiliated clubs can provide valuable information and are well worth looking into. The back cover of the Roundel contains a list of the special interest groups affiliated with the BMWCCA.

Last, I would like to increase my collection of BMW literature with some recent European catalogs of the cars not available in the US such as the 323i and 745i. If you are planning a trip to Europe this year, I would appreciate whatever literature I could get on BMW's. I'll reimburse for postage, thanks.

#### 'Gray market' sales spur warning to BMW dealers

BMW of North America has explicitly warned its dealers not to get involved with the so-called "gray market" (AutoWeek, May 31) or to modify their own new cars with non-authorized equipment such as turbocharger or suspension kits.

The company told dealers that it does not intend to stock parts for "gray market" cars—European models that have been modified to meet U.S. specifications by independent importers—nor are such vehicles covered by a factory warranty. The company also suggested dealers advise customers of its official policy, adding "there is no way any second party can bring our cars up to (U.S.) safety standards without tearing the car apart and putting it back together again."

Among the more popular European models that are currently being imported and modified by independent firms are the BMW 323i, 535i and 745i. None of those models is presently offered in the U.S. by the factory.

The company also reminded dealers that the franchise agreement with the factory specifically prohibits dealers from modfying new BMWs and that such modifications could void the customer's warranty.

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Make sure your BMW isn't the training ground for an inexperienced mechanic. Our service technicians are all BMW certified, so bring the car BMW made to the man BMW trained.



On May 8, I and about 40 other club members descended upon Summit Point Raceway in West Virginia for the National Capital Chapter BMW drivers school. It was a rainy Saturday, but the track was freshly repaved and a contingent of SCCA-licensed racing drivers were on hand to instruct us in the finer points of fast driving. This was my first BMW club drivers school, although I had attended the Bill Scott Solo I school, which has an identical format, several years ago.

It is worth noting that the club schools are an ideal way to gently explore the capabilities of your car and yourself. There is no opposing traffic, no dogs will chase your car, there is very little to run into if you should overdo things. and - best of all - no flashing red light is going to appear in your rearview mirror. You can experiment at your own pace. Many drivers chose not to exceed 70-80 MPH on the straights in deference to the wet track and the value of their cars. Others pushed on with zealous (but not wild) abandon, leaving the track several times without damage - our new club president Gordon Kimpel was a prominent example in his 530i! Only one car managed to contact anything solid, and damage was quite limited thanks to the intervening tire wall.

We began the morning by learning the proper line around the course at slow speeds with instruction from the racing drivers. Subsequently, half of us practiced at a time during half-hour sessions with further instruction and at progressively higher speeds. During this period, the track actually dried out fairly completely and our lap times came tumbling down. It was not to last, however, as the skies opened sending drivers into the "Tin Shed" garage for cover and drenching a number of our stalwart volunteer corner work-

ers. After some time, the rain let up and we returned to the track for more practice.

During this time, I managed to cadge a ride with Ed Ullom in his two-litre 320i which he races in Showroom Stock class B. Now Ed is Garth's dad and the two of them have had some dingdong battles on the SCCA circuits. Both are first rate drivers and Ed in particular is one mean, hell-for-leather racing driver. On our first lap I was convinced that we were going to leave the road on each of the track's ten turns. I distinctly remember saying to myself "OK, I'm wearing a competition safety harness, this car has a roll cage, and if Ed wants to wreck his car just to impress me, well I'm not going to stop him." But by the second lap, it all began to make sense and by the third I was well and truly impressed with his ability to press on mightily but in complete control. Ed was far, far faster than I had been in my 320i - primarily as a result of his superior driving ability but also due to his Phoenix tires versus my stock Continentals. (In fact, this was a graphic demonstration of the difference in cornering speeds possible between the two types of tires. I couldn't help remembering the Road & Track tire test that showed Phoenix's cornering at higher speeds in the wet than Continentals in the dry!) All in all, it was a most impressive ride, one that has to be experienced to gain an appreciation for the almost violent braking and cornering capabilities of a BMW pushed to its absolute limits. Thanks Ed, I'll remember it for a long time to come. And by the way, I promise not to tell Garth that I looked over at one point and read your tach at 7500 RPM!

Under a steady rain, we held time trials. The lap times on the wet track ranged from a low of around 1:50 for well-driven modified 2002's to about 2:10 for conservatively-driven stock 320i's. For comparison, the Showroom Stock Class B lap record (dry track) is 1:39.5 held by a Mazda RX-3 but matched in practice by The Ultimate Racer, Garth Ullom. Once

the time trials were completed, 3-car teams were formed by taking a car with a fast time, one with an inbetween time, and one with a slow time.

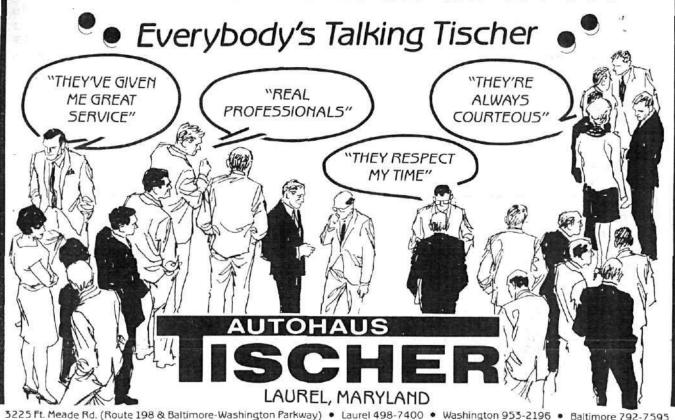
Team racing was conducted by pairing off two teams at a time. The first driver of each team would make a standing start, complete one lap, stop within a prescribed area. and run (on foot) to tag his next teammate, who would in turn complete one lap, etc. The final driver of each team would make a flying finish for his lap. Needless to say. this head-to-head racing was very exciting and some of the finishes were quite close. But after all the intermediate pairings had been run, the finish of the final event was absolutely remarkable with the third driver on my team edging the competition by a scant two feet!

My teammates and I were congratulating each other on our skill, daring, and overall victory when the message arrived: we had been challenged to a no-holds-barred team race by the instructors. You remember them, the hard-charging, fearless tyros who do this kind of thing for real. Were we intimidated by the challenge? Hell no! Once we were located and dragged out of the Porta-Potties, we took them on with scarcely a whimper. Now the instructors' team was comprised of Bob McKeithen in his Fiat X1/9 (which he had qualified second in class at the SCCA national championships in Atlanta), Garth Ullom in his 320i (which he had driven to third in class at the SCCA national runoffs), and a racing driver in a Triumph TR7 who shall, uh, remain nameless. A fearsome lot, I assure you. Well, in the first turn of the first lap, the TR7 spun off the course and stalled so my team built up a huge lead which the instructors couldn't hope to overcome.

But the "organizers" made us stop and start over although we were credited with a moral victory, hence my claim that I raced against Garth Ullom and won - sort of. On the restart, teammate Pat Grisafi of Jamaica, New York, managed to pull in his Alpina 2002 almost 3 seconds ahead of a somewhat more cautious TR7 driver. I was next in line, and with my Continentals spinning furiously I dragged down the main straight, gaining another second or so on Bob McKeithen in his X1/9. By the start of the very fast, downhill "Chute", however, ob was right on my back bumper. Now, Tob had been my instructor earlier in the day and I had diligently learned his preferred line through the turns. I figured that all I had to do was stay on his line so that he couldn't get by in the turns, and outdrag him on the straights. The best laid plans ...! At the bottom of the "Chute" you have to brake hard for the slowest turn on the track. It dawned on me that Pob wouldn't expect me to begin braking as early as I normally had been and since he was only a license plate behind me. I stood a good chance of being bunted off into the infield! Discretion and thoughts of my car's book value (not to mention visions of my insurance agent's incredulous expression) led me to take a wide line through turn 5, allowing Bob to slip through on the inside. I locked onto him as best I could through the twisty parts but in truth he pulled out a good 7 or 8 seconds on me - in one lap! I tagged my third teammate, who was driving a modified 2002 (and whose name I regret I never got), but the peerless Garth Ullom was already off in the distance and proceeded to turn in a lap that was curling toenails throughout the pits. Suffice it to say that the instructors beat us fair and square, not to mention thoroughly! But just wait 'til next year.

Family rides were offered after the team racing and then we all tore into steak dinners, campfire stories, etc. A fitting close to a most exciting and rewarding day.

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#### WORKING WITH THE HANDICAPPED

The Chapter had a problem with preparing our newsletter for mailing. We tried calling special meetings, asked for volunteers, we even tried bribing those who would help. Each met with little success. We then turned to the Op Shop — professional problem solvers with a community goal. We are now in our thired or fourth mailing.

The Op Shop is the trade name for Fairfax Opportunities, and indeed, their product is opportunity for the handicapped residents of Northern Virginia. Fairfax Opportunities Unlimited offers vocational rehabilitation and employment services to the mentally and physically impaired through work adjustment training, vocational evaluation, and sheltered employment.

The primary facility is a direct mail operation on Port Royal Road, near Springfield. Here, under the Sheltered Workshop Program, the Op Shop offers remunerative employment in a structured setting for those who are otherwise unable to compete in the general labor market due to limited work skills, slow work speed or the need for additional development of social or inter-personal skills.

Over 120 clients come to this facility to perform the envelope-stuffing, label-sticking, and zip code sorting seen in any direct mail operation. Their work is provided from private companies, clubs and community organizations who contract with the Op Shop to perform these duties.

The sheltered Workshop is a full-fledged direct-mail operation which includes a loading dock, inventory stores for regular customers, mail machines and production lines. Every

work team is headed by a supervisor handling 16 to 20 clients each. In addition, the work activity is supported by individual counseling for the clients. Each counsellor has a case load of 25 to 40 clients and are responsible for evaluating the client's abilities and progress. Recommendations for additional training or vocational experience are made on the basis of these evaluations.

Clients in this program have acquired basic life skills, such as taking public transportation to work, but are not yet ready to work in the competitive labor market.

The Op Shop receives its funding from state, local and municipal sources, as well as donations from charitable organizations and private individuals. Clients are referred to Op Shop by the Virginia Department of Rehabilitative Services. Once at the Op Shop, they are given training on work habits and skills, and placed in the appropriate work environment.

The Op Shop has been a model community agency for other rehabilitative facilities. It has received the highest rating, three-year national accreditation, from the Commission of Accreditation of Rehabilitation Facilities. In 1979, it received a Certificate of Achievement from the National Industries for the Severely Handicapped.

Our mailings now receiving professional attention and the service is dependable and trouble-free. The Op Shop maintains our mailing list, makes special mailings, produces and affixes labels, sorts mail by zip code for bulk mailing and delivers directly to the Post Office. The Op Shop is the solution for us! They can also help other clubs and organizations.

Bill Poss

### Rambling Ruminations

Another cost - Conventional wisdom holds that depreciation is the single greatest cost of automobile ownership. I have no quarrel with that proposition generally applied, although it has been my pleasure to own a car or two that depreciated hardly at all. The point I would make is that a particular car's relatively low rate of depreciation may be more than offset by the relatively high opportunity cost that is attendant upon its purchase price. Here, I use opportunity cost to describe the potential income that we forego when we expend a given sum for a nonincome producing asset, i.e., the private automobile.

For a simplified comparison, let us assume (somewhat conservatively in today's world) that we could through investment realize an annual return of 6 percent (net after taxes) on the money we otherwise pay for a car, and let us further assume that this is true for each year of ownership. We thus ignore, for simplicity, the fact that the car may be paid for over a period of, say, three years (which would reduce the opportunity cost for that period), and we ignore the fact that each year's net earnings could be reinvested (which would increase opportunity cost).

Given these assumptions, the opportunity cost of owning a \$30,000 automobile is \$1800 per year (or \$150 per month), whereas the comparable figure for a \$15,000 automobile is half that, i.e., \$900 per year (or \$75 per month). Would you be impressed by the fact that, based on prior experience, the \$30,000 car could be expected to be worth 80% of its original purchase (and not base) price figure after three years, and 65% after five years, whereas comparable figures for the \$15,000 car would be only 60% and 40%, respectively? Careful.

In three years, the depreciation on the \$30,000 car would be \$6,000 and the opportunity cost \$5400, for a sum of \$11,400. Comparable figures for the \$15,000 car would be \$6,000 depreciation and \$2700 opportunity cost, for a sum of \$8700, or a \$2700 advantage for the three years. In five years, the depreciation on the \$30,000 car would be \$10,500 and the opportunity cost \$9000, for a sum of \$19,500. Comparable figures for the \$15,000 car would be \$9000 depreciation and \$4500 opportunity cost, for a sum of \$13,500, or a \$6000 advantage.

To be sure, there are other factors to be reckoned into the total cost of ownership, and there are subjective considerations as well. The message is that we shouldn't overlook opportunity cost, lest we make a purchasing decision on an erroneous rationale. You will note, however, that while advertisements by the manufacturers of expensive automobiles play up a relatively favorable depreciation rate, not one (to my knowledge) has ever addressed the opportunity cost factor.

Changing the other oil - Most car enthusiasts are aware of the benefits of frequent changes of motor oil and filters--at least every 3000 miles, and more often under certain conditions. Gordon Fletcher, deputy guru at J&F Motors Ltd. in Arlington, points out that it is also a good idea to change the lubricant in the gear box and manual transmission periodically, say about every 25,000 miles under typical conditions. I had this done at the 37,500 mile service, although the 530i owner's manual only prescribes a topping off, if needed. As a result, gear changes in my car are of the butter-smooth, snick-snick, variety once again. Happily, the cost for this improvement was nominal. (If your car has an automatic transmission, other rules apply. My advice would be, change to a manual transmission.)

Some service - Several months ago, it was related to me by a reliable source that a BMW dealer charged nearly \$800 for a by-the-book, routine 25,000 mile service on a five-series car. This alleged incident—and unconscionable thievery, if true—took place a considerable distance from the greater Washington, D.C. metropolitan area, but gives ample cause for concern nonetheless.

Omission - You must have seen the ad by BMW ballyhooing the relatively high resale value of the 1979 320i, which seems to me to take some liberty in its representation of the average price at which those cars were originally pur-

#### THE TEN COMMANDMENTS OF A BMW ENTHUSIAST

- 1) Thy BMW shall take precedence over all other things.
- 2) Thou shalt know thy BMW well and drive it wisely at all times.
- 3) Thou shalt treat thy BMW with kindness and devotion each day.
- 4) Thou shalt obey its whining camshaft urging you on.
- 5) Thou shalt respect and trust thy BMW's cornering ability.
- 6) Thou shalt faithfully attend the meetings and events of the BMW Club.
- 7) Thou shalt not steal life from the BMW by keeping it in disrepair.
- 8) Thou shalt not buy regular gas, inexpensive tires, or cheap oil.
- 9) Thou shalt visit thy dealer occasionally to rever the new BMWs.
- 10) Thou shalt do all in thy power to maintain thy BMW in concours condition.

#### THE TEN COMMANDMENTS AS WRITTEN BY THE WIFE OF A BMW ENTHUSIAST

- 1) Thou shalt remember to bring thy wife to Club meetings and flatter her with attention so that she will come again.
- 2) Thou shalt not show more concern for thy ailing BMW than for thy neglected
- 3) Thou shalt remember to say "Good night" to thy wife after thou hast tucked thy BMW into the garage.
- 4) Thou shalt love, honor, and cherish thy wife as well as thy BMW.
- 5) Thou shalt not kill thy marriage by preferring the companionship of thy BMW.
- 6) Thou shalt not commit idolatry with thy
- Thou shalt not steal time from thy wife to spend on thy BMW.
- 8) Thou shalt not praise the performance and beauty of thy BMW without praising thy wife.
- 9) Thou shalt not covet thy dealer's BMWs.
- 10) Thou shalt not dress thy BMW in rims, lights, and racing stripes while thy wife goes in rags.

## DRIVING IN THE D.C. AREA

One needs to be familiar with the rules of the road as practiced in this part of the country. The relevant law books, although only slightly smaller than the Sears & Roebuck catalog, tell only half the story. There are a number of unwritten laws in the National Capitol area that the visitor should be aware of. I will attempt to list the most

1. Cars travelling more than 15 mph below the speed limit

are required to use the fast lane.

2. When entering an expressway, 1200cc Volkswagens

are required to pull immediately to the fast lane.

3. If mechanical difficulties are encountered, stop in the lane you are in. Do not coast to a safe location or use the shoulder.

- 4. Tourists are not allowed to use road maps. Simply stop in the traffic lane and ask directions, preferably from another
- 5. When taking an exit, you must stay in the opposite lane to within not more than 1/10 mile of the exit.
- 6. Anyone over 65 years old is requested to drive around sightseeing during rush hour traffic.

7. When crossing a long bridge, gas gauge must be on empty.

8. On any car more than five years old, if both headlights work they may not be aimed in the same direction.

- 9. Use of turn signals is not allowed. If you cannot resist, signal wrong direction or use 4-way flashers. Sticking arm out window and waving up and down is also acceptable.
- 10. Ditches along roads are for trash. Old beds and appliances are especially desirable.

11. Unused garbage bags should be placed over fences or tree limbs so the wind may flutter them gracefully.

12. Loads may not be securely strapped down. Pickup truck tailgates may not be in up position unless bed is already empty.

13. Lastly, traffic signals are used slightly differently here. On green, put down beer, fold up Playboy/Playgirl and put car in gear, preferably the wrong one. Yellow means proceed as rapidly as possible. When the light turns red, only five more cars are allowed through the intersection (unless bearing government tags).

Good luck!

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#### Continued from page 8

Would I recommend the drivers school to other non-racer type club members? On balance, yes I would. If you approach the school with the proper outlook, you can learn a great deal about controlling your car in high-speed or emergency situations but without risking your health or your car's health. I was reasonably cautious throughout the whole day, pressing fully as hard as I could only in certain "risk-free" areas, staying well away from other cars on the track, and not trying to set any lap records. My car suffered no damage whatsoever (not even excessive tire wear) and in the 100 miles of track time the engine never came close to overheating or misbehaving in any other way. I even managed to drive to the track, on it, and back from it on one tank of gas - an average of over 20 miles per gallon. (On the other hand. I discovered that my trunk leaks slightly at speeds over 100 MPH.) All in all, if you approach the school sensibly you can become a better and more confident driver at a very low cost and even lower risk. You should try it. Rick Foster



#### Continued from page 11

chased at retail. But that is not the point. There is no mention in the ad of the fact that 1979 was the last year of the two-litre three-series car for the U.S. market to date, a fact which no doubt enhances the value of the 1979 320i. If BMW wants to learn a lesson or two about resale value, and about a segment of the U.S. market that it is now neglecting, it ought to survey the current selling prices for decent examples of the 2002tii, whether 1972, 1973 or 1974.

Round 'em up - In the club parking area at Summit Point Raceway on May 16, there was a very keen 2002tii, as well as a ti model, a new looking 633CSi, a fair number of three-series cars, and there were six five-series cars, but not a one of them was of the current "e" variety.

Smart aleck - A domestic enthusiast magazine, pointing out that, in revising the three-series cars, BMW will depart drastically from the "evolutionary" tradition that produced the 1982 five-series cars, adds: "Welcome to the '80s, BMW."

Bill Via



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## Tech Tips

#### Four Cylinder Valve Adjustment

(The following is adapted from an article by Rodger Moon of the IA Chapter, published in National Capital Chapter's newsletter, "Der Bayerische.")

Most every EMW owner knows that when his engine goes "clack-clack" instead of "click-click", it is time for a valve adjustment. What isn't so well known is that properly adjusted valves not only eliminate the noise, but avoid what could result in catastrophic failure. Too little clearance between the valve stem tip and rocker arm may result in the valve being held slightly open due to thermal expansion when the engine is hot. Hot exhaust gases can then rush through the clearance causing the proverbial "burnt valve." On the other hand, too great a clearance can result in the valve being snapped shut by the valve spring (especially at high engine speeds). On occasion, the valve stem breaks under the impact, allowing the valve head to drop into the cylinder and mangle the piston.

Now that you have been suitably forewarned, you can either take your car into your local dealer and drop about \$36 for every 8000 miles, or do the job yourself for the cost of a valve cover gasket. Estimated time for the project is one hour your first time through, but it can easily be done in half that time with a little experience.

Since valve adjustment is relatively simple, some owners adjust their valves more frequently. It is also important that the head bolts are properly torqued down to 50.6 +/- 1.4 ft/lb. This should be checked every 8000 miles as the head bolts can back themselves out causing major problems if not taken care of. When torquing the head bolts, make sure that the engine is cold -- preferably left standing overnight. This is also important when adjusting the valves.

The valve adjustment procedure is essentially the same for four and six cylinder models except for the firing order. For the sake of simplicity, I'll just discuss the four cylinder. Assuming that you don't have a BMW cranking tool, the procedure is as follows:

- 1. Since you'll have to crank the engine into the proper position by hand using the fan as a lever, or by using the starter motor, I recommend removing the spark plugs to reduce the load. This is also a good opportunity to clean and gap or replace the plugs.
- Remove the breather hose connecting the valve cover and the air cleaner.
- 3. Remove the six (10mm) nuts and the one (10mm) bolt from the valve cover. Make sure the clips holding the ignition wires are free before pulling off the cover. Set the cover aside in a clean place.
- 4. Begin by setting the #1 cylinder (at the front of the car) at Top Dead Center (TDC) so that the notch in the crankshaft pulley is in line with the pointer on the block. When viewed from the left side of the engine. There is also a notch in the front flange of the cramshaft, which should be directly under the oil distributor tube.
- 5. Note the position on the cam lobes on the #4 cylinder when the #1 is at TDC. The #4 exhaust rocker arm should be halfway down the nose of the cam, while the intake rocker should be halfway up the nose of the adjacent cam; these valves are in the overlap position. The basic idea is to check the valve clearances for each cylinder when it is at TDC. TDC for a cylinder can be double-checked by verifying that the proper cylinder is in the overlap position, as shown here:

TDC		Valve Overlap
Cylinder		Cylinder
#1		#4
#3		#2
#4	23	#1
#2		#3

You can triple-check TDC by removing the distributor cap to see which cylinder is firing (by noting which ignition wire the rotor points to) and making sure that the rockers for that cylinder are off the cam lobe.

- 6. The correct valve clearance for both the intake and exhaust valves is 0.006 to 0.008 inches (or 0.15 to 0.20mm). To measure the clearance, a feeler gauge should be inserted between the valve and the rocker arm. If they are out of spec, adjust the valve clearance by loosening the hex nut (10mm) on the eccentric cam of the rocker arm. Using a piece of steel wire (bent on the end) or 0.1 inch thick allen wrench, turn the eccentric adjuster until the correct clearance can be measured. Retighten the hex nut (carefully) and check that the clearance has not changed. Repeat if necessary.
- 7. Now crank the engine so that the #3 cylinder is at TDC. (This usually requires two very quick cranks of the starter.) You can tell that #3 is at the TDC position when the #2 valves are in the overlap position. Now repeat step number six.
- 8. Now repeat step number six again after cranking #4 cylinder to TDC (#1 is in the overlap position) and finally #2 at TDC (cylinder #3 in the overlap position).
- 9. After all the valves have been adjusted, install a new valve cover gasket, or salvage the old one and spray gasket sealer. Bolt down the valve cover GENTLY. Replace the breather hose.
  - 10. Install the spark plugs.

Although the procedure may seem complicated, it is really straightforward. You can never adjust the valves too often. A valve adjustment should always be part of a major tune-up.

--Bill Elftman, Golden Gate Chapter; Chris Theodore, BMW Car Club of Michigan.

#### DIRTY HANDS - 1

My co-workers (vocation) know that my avocation is working on BMWs. On Monday mornings, they try to find evidence of weekend work under my fingernails, but are almost always frustrated. The answer is a simple one - I use GO-JO.

GO-JO is a waterless handcleaner, sold in cans, which - with judicious application - will keep your fingernails, cuticles, and hands almost as clean as a surgeon's. It is easy to use, and gives results which amaze the uninitiated. I suggest buying the 1/2 gallon can (under \$6.00) as it lasts me about six - eight months.

Harmon Fischer (Mr. Clean)

## Calendar of Events

- 7/21 NTW Tech Session on tires 8 p.m. to 10 p.m. at their Alexandria location at 200 Eisenhauer Avenue Exit 2N of I495 Telegraph Road.
- 8/15 BMWCCA Corral and Parade Laps at SCCA Summer National Races at Summit Point this is the big race of the year!
- 8/18-22 National Octoberfest Albany, New York
  - 9/19 Fall tour in Virginia no charge (rain date 9/26)
  - 9/23 History of BMW presented by Lothar Schuetler. Grovesnor Apartment Complex in Rockville.
  - 10/2 Octoberfest at Autoy in Rockville No charge
  - 10/10 Winery Tour Merydth Vineyards, Middleburg, Virginia \$2.00 at Winery (Rain date 10/17)
  - 10/15 El Cheapo Driving School
  - 11/12 Augustfest Ethnic Party Free
  - 12/3 Wine and Cheese Party at Grovesnor Apartment Complex 8 p.m.

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320i IGNITION KEY NUMBERS - Connecticut Valley Chapter.

So, you want to have another ignition key made but can't seem to find that little tag with the key number? No need to call Montvale, as the number is in plain sight in the trunk. It is stamped on the copper level arm on the end of the lock cylinder, and is visible through the square opening just above it. You may have to turn the lock with your keyp to get the entire number, or remove the lever arm by loosening the allen set-screw.

#### · SPARE PARTS

On the way to the recent car stereo seminar presented by Voyager Sound (see review elsewhere in this issue), my car started to miss and cough. Since it wasn't too serious and because I'm a firm believer in the first rule for do-it-yourself mechanics--don't fool with your car away from home (you'll always find that you need a part you don't have and...how do you get to where you can get the part with your car all apart).

Not being very adept under the hood of the car, I was pretty much limited to checking for spark plugs sparking and the rotor rotating. Five of the plugs looked great. Now we come to the second rule for do-it-yourselfers-basically it's Murphy's Law--The one you don't bother to check is the bugaboo. As I pulled off the sixth plug connector it desintegrated in my hand--which just goes to prove the first rule is Golden and the second Silver.

I had found the problem! But... where do you find a spark plus wire on a Sunday evening?, which leads us to the third rule--keep used parts, In my spare parts bin, I had saved a spark plug wire from my 2002 for cases just like this. It was really too long, but it'll do until I can replace the full set.

Moral: Keep and carry some spare parts. It can help prevent an expensive towing bill if a part fails on the road or at least, save you the inconvenience of tying up your car until you find a new part.

Ira Winthrop

#### PUMPED

Have your windshield washers died? Before you opt for a new pump, try the following: Empty the bottle and remove from car. Unpiug the plastic tubes and remove the four screws that hold the pump motor on the bracket. This will also separate the pump from the motor. Wash the grit and deposits out of the pump—they're probably what the unit from working. The operation takes about ten minutes and has worked for the 2002 and the Bavaria. While you have every—thing apart, check the motor to make sure that it isn't the problem.

Burke Jensen Tarheel Footnotes



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#### TIPS FOR PAINT CHIPS

All of us loose chips of paint on the front cowling and along the fender walls. I have sometimes looked at my 2002 and thought I had been following a 328 roadster in a prewar Mille Miglia (probably a gravel truck on I-94). Here is my technique. If the ding has not broken through the primer, apply the finish coat. First the factory touchup kit--cut off the brush in the cap, it is useless. As Harrah's restoration shop recommends, the brush tip should always be smaller than the ding in the paint. A pointed sable tip brush is my choice. After touching up a spot, let it dry overnight. Then use Classic Car Wax finish restorer and rub the spot out: then wax. Clean the brush in laquer thinner and then in warm soapy water. Before it is dry, draw the tip back to a sharp point (these brushes will cost about \$1.50). If the chip goes to the bare metal, first check for rust. If the rust is only a day or so old the metal is probably not pitted. In this situation Naval Jelly will remove it. Apply with a 0-tip and follow directions. If the chip is older and the metal pitted, I have resorted to a more radical solution. Remember, the spot must be absolutely free of rust. I use a Dremel hobby grinder with an accurate pointed conical stone. After the spot is brought to bare metal, clean with acetone, alcohol or lacquer thinner. This insures a clean dry surface: Prime the spot with a zinc chromate primer and allow to dry over night. Then apply the finish paint as previously described. These techniques have worked for me and the dings will not rust again. I guess the only true solution is to buy the new BMW-Lamborghini fiberglass coupe and forget all this nonsense about rust and dings.

Tarheel Chapter

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DOOR LATCH FIX. Can't get your door adjusted, you say? Got to slam it like Steve Reeves in order to get it shut? Having difficulty locking it? Worked with the door lock striker located in the door jamb until you've carved out the Phillips screw heads? It still stands out a quarter inch proud and you're ready to start monkeying with the hinges? Relax!! Help is only 99¢ away, in part #52.21.1.809.735, "Puffer" in German, "Buffer" in English. Look at the "C" shaped latch mechanism (toggle spring lock) located in full view on the edge of the door. There should be a small plastic tip (the puffer) over the upper end of the "C". This end of the "C" is notched to take the puffer — if it's not there, then you need it. It's about the size of your index finger nail and about a quarter of an inch thick. When installing, take care to install the thicker, convex side toward the passenger compartment so that it strikes the cylindrical post located on the door lock striker on the door jamb. Simply force the puffer down over the notched end of the "C" and your door will be as smooth as silk again; re-adjust the door lock striker as necessary.

#### ANTENNA ATTENTION

If your radio reception is getting worse these days, the problem may be with the antenna. The automotive environment is a harsh one and the antenna can wear out. If this were an April Fool's column, I would launch into some detailed explanation of how the electrons in the antenna get pushed into the radio by the transmitting stations and that after awhile, there are too few left to carry a good signal.

The fact is that water can and does find its way into the antenna. After enough years, it seeps into the antenna lead, between the signal lead and the dielectric layer, where it effectively shorts out all but the strongest signals. There is a Datsun antenna that costs half the BMW's price, and even is available with a signal splitter and loading coil so that it can be used with a CB without a separate CB antenna.

Bill Machrone, NJ BMWCCA

#### TURN YOUR RAIN ROOF BACK INTO A SUN ROOF

Under each front fender well, there is a small (7 - 9mm) hose with a dangling open end. This hose must be in a vertical position, clear of all debris, road dirt, moths, etc. The hose goes through the window pillar and connects to the two drain troughs in the corners of the roof opening. Clean the hose with a coat hanger to remove accumulated debris (my right hose was packed solid for the last 4" with debris). Check by carefully pouring water in each drain trough and watching it run unrestricted out the tubes.

#### Buckeye Chapter BMWCCA

And don't forget to clean the drain tubes in the engine compartment. There are three tubes that drain water from the windshield area and they fill up with leaves and needles if you park anywhere close to a tree. Cut off about 2 or 3 inches on these hoses as they tend to close up at the bottom and trap the leaves and water and other debris and it backs up and somehow gets in the inside of your car and wets the carpet.

Harmon W. Fischer

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15615 Frederick Road Rockville, Maryland 20855 (301) 251-0252 In a short time, Bayou Chapter has its annual election of officers. The nominating committe will face its usual dilemma ... "Who in the Chapter is willing to work?"

If you will check the officers' names over the last seven years, if you look at the organizers and workers for special events, if you ask someone who to call for information, you'll find the same names over and over.

Bayou Chapter has rendered a service to its membership that has been a financial advantage with its parts store, tech sessions, diagnostic clinics, and do-ityourself sessions. The organizers and instructors are usually those same willing workers. It is hoped that the social occasions have been a pleasant experience for the members, but if you look behind the scenes, you'll find the wives of those willing workers have given of their time and talents to make the occasion a success.

As the wife of a past president and willing worker, may I offer some suggestions, or perhaps solutions to problems that have arisen for some of the officers and workers, and their families. These problems have caused some workers to drop out after serving your Club well for a short time, or have caused them and others to refuse to accept nomination to elective

Please bear in mind that the time spent on Club activities is the time left after earning a living. These members also have personal business, home chores, and family obligations to take their time, plus a need for relaxation. An active officer spends an average of one night a week and two weekends a month attending meetings and Club events, in addition to time spent organizing events, enlisting prospective members, writing for the newsletter, etc., etc.

- Please limit the time for telephone calls to 7:30 to 9:00 PM. The telephone numbers listed for officers, parts store managers, and workers in the newsletter are home numbers, and that person is not available until evening. Check the calendar of events to be sure that person will be at
- 2. Read your newsletter. The information or telephone number you want may be there. Save your newsletter for reference ... at least until you receive the next one.
- 3. Members who have benefitted from Club activities should volunteer their time and talents to help organize and put on events. In short, spread the work load.



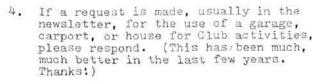












- If you are really a part of this organization and have leadership ability, then for heaven sake come forward: there are more officer candidates, or people willing to accept committee appointments, then the work load will not fall on so few. Besides, the Club will benefit from new ideas.
- Show your appreciation to the officers and workers by having consideration for their time and privacy. Please make prior arrangements before going to someone's home to watch them work on their car, receive help with your car, pick up parts or borrow something, and remember that their time is limited. Please do not expect to be offered refreshments, or the use of facilities that would infringe on the privacy of family members.
- Write an article about your experiences with BMW, share a good tech tip, or information on products and services. Gwen will appreciate any contributions: If you want assistance in editing, mail your article to Gwen or Harmon with that request and your telephone number. Or better still ... is there someone out there who would serve as a ghost writer?
- Offer to take reservations or give information about scheduled events. Share the telephone load.
- Find a place for the monthly meeting. Don't leave it up to the president. (Ware still looking for the back room of a moderately priced restaurant, offering a varied menu. Meetings held where food and beverage were available have had better attendance.)
  - Attend the Board Meetings, the sunshine law is observed: But definitely attend the monthly meetings. (Average attendance is only about 7% and that includes officers.)
- 11. If asked, please serve on a committee. The workers who have done so much for you for so long are beginning to suffer from "burn out".

Barbara Fischer



I think we'll all agree Barbara deserves a medal for her years of patiently accepting the hours of phone calls that tie up Harmon each week, plus the influx of shade tree mechanics seeking help when the acorns start falling on their heads, and now he gets calls nationwide since becoming a well-known BMWCCA officer. Hang in there, Barbara, it's got to get better!

By now you have received and hopefully responded to the Opinion Poll on the Charity Drive-A-Thon. The concept has generated considerable interest both within and outside of our Club. If you have not expressed your opinion, either by phone or by mail, please contact me.

In brief, we are contemplating a "people event" in which each of 40 to 50 BMWs departs from Mount Vernon on a Sunday morning in September or October with a rider served by a charity. Not only can we raise money, but also provide a nice outing for handicapped children or riders from another charity selected by our membership. Each car will have a banner reflecting the total amount pledged per mile for the 30 mile course along G.W. Parkway. A U.S. Park Police escort and Alexandria City Police traffic control will ensure that the drive to and from Arlington Cemetary are unimpeded. Club advertisers will provide refreshments at the Mount Vernon staging area. Media coverage will include Public Service Announcements (PSA) and possible coverage of the event



by PM Magazine. The PSA spots will direct the public to the Club's advertisers who will have pledge cards available for their use. Donations will be tax deductible and all proceeds will go directly to the charity.

You should note that a decision to proceed with this event is dependent on the number of replies we receive and the level of member and advertisers interest.

Our Club, with almost 700 members has many diverse interests. Annually, we sponsor many events for members and advertisers. A charity event could be of real benefit to our community and positively boost our Club's image and that of other car clubs in this area. Mark Luckman, Executive Director, BMWCCA, agrees and feels that our image would benefit nationally as well.

Again, if you have not responded, please respond. If you can help with PSA spots or other activities, please call Bill Ross at 382-2198 (days) or 654-7987 (evenings).

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