

Der Vayerische

volume four number nine

september 1974



OFFICAL PUBLICATION OF BMW Car Club of America / National Capital Chapter

Per Bayerische

BOX 41046 BETHESDA, MD. 20014

| Editor | | | | | | | | | | Paul Schauble |
|----------|-------|--|-------|--|--|--|--|---|---|----------------|
| | | | | | | | | | | (301) 434-3755 |
| Photogra | apher | | ÷ | | | | | ŝ | • | Rick Price |
| Artwork | | | | | | | | | | Estelle Watts |

Staff

| Gretchen Blankenship | Jim Blankenship |
|----------------------|----------------------|
| Patti Cavallero | Ric Cavallero |
| Dave Roach | Nancy Stutsman |

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National Capital Chapter Officers

| President | Suzie Wyban | (703) 979-5733 |
|-----------------|-----------------|----------------|
| Vice President. | Nancy Stutsman | (703) 525-4094 |
| Secretary | Denise Price | • |
| Treasurer | Jim Blankenship | (301) 657-2178 |

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Committee Chairmen

| Activities | Ron Beavers | (703) 360-7212 |
|-----------------|----------------------|----------------|
| Autocross | Ric Cavallero | (301) 871-1131 |
| Council | Mike Leeper | (703) 491-3038 |
| | Chet Kingsbury | (301) 345-2915 |
| Membership | Gretchen Blankenship | (301) 657-2178 |
| Oktoberfest '74 | Ric Cavallero | (301) 871-1131 |
| Racing | Jerry Coffey | (202) 223-9194 |
| Rally | Kathy Leeper | (703) 491-3038 |
| Serv. Rpts | Mel Morganstein | (301) 384-5858 |
| Storekeeper | Paul MacInnis | (301) 449-6599 |
| Technical | Terry Wyban | (703) 979-5733 |
| | | |

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\$5.50 of the annual chapter membership dues is for a subscription to DER BAYERISCHE. Single copy price is \$.50.

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Editor's Ramblings

Well, let's see. We'll just get comfortable here in the editor's seat. Hmm...this is more difficult than I thought. Paul must be enjoying himself out in Arizona without this newsletter to worry him. Then again, with me minding the store, maybe he is worrying.

Perhaps we shouldn't do this in our first issue, but we're going to get controversial. Did you know that the National Capital Chapter is the second largest chapter in BMWCCA? What we're pointing out is that you wouldn't know it from the attendance at events. It seems to us that most of you out there are sitting on your...er...differentials and not supporting your club by taking advantage of its events. We seem to have a hard core of fanatics that do everything. What we need is a broader base of interest. If you're dissatisfied about our events, don't sit in your easy chair and grumble at the coffee table--take a little action. Come to a meeting, stand up, and speak your peace. Or, if you can't come to a meeting, then at least write a letter. Who knows, maybe you'll see it here in print. We, the newsletter staff, want to know what you're thinking and what you want your club to do. What kind of activities do you want? How can we improve this newsletter? To pick up and dust off a worn-out cliche, this club is only as good as you care to make it.

Acknowledgements

It's time for a note of thanks. For the past seventeen issues, we have been blessed with the use of the offices of the National Council of Teachers of Mathematics. They have allowed us to use their very expensive typewriters and other office equipment to type this newsletter, and all they've gotten in return is a few new carbon ribbons. To them we are deeply indebted. If you're an elementary school teacher or a high school mathematics teacher, you might be interested in joining the National Council of Teachers of Mathematics and subscribing to one of their journals, the ARITHMETIC TEACHER or the MATHEMATICS TEACHER. Membership is \$13 a year, including a subscription to one of the journals. Write to the NCTM at 1906 Association Drive, Reston, Virginia 22091. In any case, we appreciate their generosity in lending us their office.

Another note of thanks goes to Mr. Mike Mannix, a salesman at VOB, who is doing his best to get VOB a more active role in the BMWCCA. Mike has arranged for us to use VOB's office to type this newsletter. If you care to show your appreciation in a big way, go by and buy a new BMW from him. Ron Beavers awarded the trophies for the club's fun rally in June.

The second Club-sponsored autocross held on July 21, was very successful. The trophies for this event will he awarded at the club meeting in September. An autocross school will be put on September 1 at the University of Md. Members of the USCC and some of our own club members will be instructors. O.D. will be Chet Kingsbury.

For the rally report, Mike Leeper handed out several flyers for the fourth PCA Friday Nighter, and the AJSTC Championship Rally.

Ric Cavallero reported a change in the autocross for Oktoberfest '74. It is now a driver's school with SCCA instructors.

Old Business: The Christmas party is on December 14th. The cost is \$10 per couple.

New Business: The Championship Rally put on by the club will be November 17th. A motion was made to buy a gavel to be passed on to each president. A plaque would also be bought to present to the outgoing president. The motion was carried.

After a buy-and-sell session a slide show was given by Rick Price with shots of last year's Oktoberfest and the IMSA Mid-Ohio Race.

Denise Price

chief of controls, and Patti Cavallero and Denise Price are the end/party planners. All these people need help. Dave, especially, could be saved a lot of phone work if members called him to offer to work and/or lend equipment. No previous experience is necessary. There will be plenty of jobs available for anyone who wants to join in this effort. More is not only merrier, more is necessary to put on a really top-notch event. There is a horrible amount of detail to be taken care of, coordinated, and dispatched before and after the day of the rally, too, so don't feel that because you have other plans for that weekend you are cut out of working. Please offer your assistance. The time to offer is now here,

Club members wishing to run prechecks of the rally for experience's sake as well as to check the course for errors should contact Mike Leeper within the next few weeks. It is possible that checks could be made as early as October 1. (That is <u>rash</u> speculation.)

Our championship last year was very well received by the rallying community. Relative lack of experience notwithstanding, club members sallied (pardon the pun) and did an excellent, professional job. Let's do it again!

Kathy Leeper

Activities

The sixteenth annual U.S Grand Prix will be held at Watkins Glen, New York, on 6 October, with practice and qualifying scheduled for 4 and 5 October. The Glen is in central New York State, approximately seven hours from Washington. This year's race promises to hold lots of excitement - for the first time in U.S. Grand Prix racing history, the World Drivers' Championship will probably be decided at the Glen. Good vantage points for camera buffs are along the "S" curves. Camping is recommended, as accomodations are hard to find. See the richest, most famous racing - Formula 1.

Don't forget our club's championship rally on 17 November. Mike Leeper is rallymaster and Dave Roach is chairman of controls. Workers are needed - no experience necessary. Call Dave Roach at 301/593-1875 to volunteer. (Volunteer now - avoid being drafted!-ED.) A pre-run will be scheduled at a later date, as well as a worker's party.

Ron Beavers



RAILY BOX

There are a few items to write about this month. First, numbers have been reserved for club members for the upcoming WRC Championship Rally, which is on September 22. Preregistration is by mail only. Write Wanda Matthews, 3348 Gold Mine Road, Brookeville, MD 20729. I do not know of any close-in rallies other than this one and the other upcoming championships.

Our club fielded a team for the SESCA Championship on August 10 and managed to do better than PCA's B team and WRC's D team. Nancy Stutsman and Jean Frane were eighth senior pair, unequipped. The Critchlows showed well with a fourth novice placement. The Leepers were third overall. A club team has been fielded for most championships and club members are frequently running club events in the area with fine results.

November 17 BMWCCA will have its Championship Rally. Mike Leeper will be the O.D. this year, Dave Roach is

Nember Memorabilia

It's membership report time again. We only have a few new members this month, hopefully it's because of the time of the year. Let's give a glad welcometto:

Dennis and Susan Landry, 8700 Char Court #12, Laurel,MD. Dennis & Susan are the lucky owners of 1973 3.0CS.

Richard LeVine, 7740 Hwy. 72, Germantown, TN. Richard has a far piece to travel to come to a meeting, but he can certainly travel in style in his new 19/4 2002.

Wayne Coleman, #2 Boars Head Lane, Charlottesville, VA. Wayne has a new 1974 2002Tii.

Daniel C. Kaufman, 6018 Craig Street, Springfield, VA. Dan's car is a 1972 2002Tii.

Welcome all and we hope to you at our meetings.

Gretchen Blankenship

Treasurer's Report

| CORRECTION | | |
|-----------------|----------|----------|
| July 1 | Balance | \$131.37 |
| | IN | OUT |
| | \$271.50 | \$219.94 |
| | • | |
| Net | 51.56 | |
| | | |
| August 1 | \$182.93 | ĩ |
| | IN | OUT |
| Dues | \$152.00 | |
| BMWCCA | | 60.00 |
| Newsletter | | 82.16 |
| Rally Trophies | | 22.50 |
| s.c. | | 2.80 |
| Autocross | 240.95 | |
| Autocross | | 87.52 |
| Returned over p | ayment | 10.00 |
| | \$392.95 | \$264.98 |
| Net | 127.97 | |
| Balance | \$310.90 | |
| | | |

Jim Blankenship

AutoXtacy

Our autocross school went off very well, we had a total of 19 students in an assortment of cars. A few of the students developed a fascinating interest in the sport especially Jim Blankenship who after being very hesitant to try autocrossing got tremendously involved and obsessed with lowering his time. After eight runs he achieved the lowest student E-stock time of the day -1:08.7, too bad only the first four runs were official.

Results are as follows:

| FTD - Don Granger | Por. 911 | 1:03.2 |
|----------------------|----------|----------|
| FDD - Bonnie Granger | Por. 911 | 1:06.6+1 |
| C/S (members only) | | |
| *1st Mark Feroglia | Tii | 1:10.1 |
| *2nd Jim Blankensh | ip Honda | 1:11.0 |
| *3rd Jack Rolfe | Tii | 1:12.1 |
| 4th Paul Schauble | 2002 | 1:13.1 |
| 5th Fred Weinberg | 2002 | 1:12.3+1 |
| Ladies C/S | | |
| *lst Leslie Ferogl | ia Tii | 1:10.2 |
| *2nd Denise Price | 2002 | 1:14.4 |
| 3rd Ute Rolfe | Tii | 1:14.8 |
| 4th G. Blankenshi | p Honda | 1:15.6 |
| | | |

*Trophies

Trophies will, hopefully, be awarded at our next meeting on September 18.

Note the time of Leslie Feroglia--until her husband's last run, she was beating all the men quite handily.

On the Championship autocross trail, our club is doing pretty well. Top-ranked members are myself in fifth place in A/P, Ed Alber in sixth place A/P, Chet Kingsbury second in E/P, Harry Bacas in first in C/S, and Rick Price third in C/S. Teamwise, we are in fifth place in a field of twenty-two teams.

Ric Cavallero

Club Store

I have tune-up items, especially points for new cars, 2002 clutches, and two front mufflers and one resonator for a 2002. I also have all the usual items, especially BMWCCA grille badges.

If someone has a used air cleaner for a 2-barrell 2002, please lend it to me so I can find a cheaper air cleaner that will fit.

Also, one note on parking near the Brichskeller-several of us parked in the church parking spaces across the street at the last meeting and got tickets (apparently no ministers own BMWs--ed.).

Paul MacInnis

Technical

Suspension: Bump Steer

A few months back we looked at the toe changes built into steering geometry (Ackerman effects). If the car operated only at walking speeds with no weight transfer and no roll, this would be the only effect of toe change on steering. But as soon as the body rolls, the outside wheels assume a "bump" or "jounce" position relative to the chassis and the inside wheels assume a "rebound" position. If the direction the wheels point changes as they work into and out of the wheel wells, then they tend to alter the direction of the vehicle (steer the car). These effects are called roll steer, toe steer, or bump steer.

The simplest example of this phenomenon is the "Hotchkiss" (non-independent, with leaf springs) rear end so popular in Detroit for so long. As the leaf springs flex under load, the distance from the fixed front spring pivot to the axle changes slightly as the spring flattens and arches. This means that the axle moves forward or rearward as it moves up and down--the pattern of movement being dictated by location points, spring arch, and so on. The important point is that the two ends of the axle usually move by different amounts (and sometimes in different directions) when the body rolls in a corner. Since the wheels are firmly located by the axle, the whole assembly steers like a child's wagon. If the wheels point slightly toward the inside of the curve, the effect is roll understeer; if they point toward the outside, the effect is roll oversteer.

When a car is cornered hard or if it has a lot of roll stiffness, the picture is further complicated by weight transfer. Taking the extreme example, when the inside wheels are off the ground, it doesn't make much difference which way they are pointed. We had a graphic demonstration of this simple fact at Summit Point last season. One of our cars suffered a huge cut in the right front tire on the short straight before paddock bend. The unsuspecting driver negotiated paddock as well as turns one and two (all right-handers) with his.**usua**l enthusiasm, but he got an extensive tour of the West Virginia countryside when he tried to turn left into wagon bend.

If a car is very stiff in roll, suspension motion is greatly inhibited as to the point where weight transfer is the dominant factor. This allows a chassis tuner to ignore toe changes in the rebound portion of the suspension arc of movement. In fact, the need for stiff sway bars is a pretty good indicator of crummy rebound geometry (witness BRE Datsun rear end). In softly spring cars, a great deal of body roll occurs before weight transfer eliminates the inside wheels from the equation.

In all-out racing cars, the center of gravity is very low to reduce weight transfer and keep all four tires working as much as possible. Thus bump steer comes to the fore again. The setup preferred by most drivers entails moderate amounts of bump toe-out at the front and bump toe-in at the rear. Both of these factors contribute to mild, predictable understeer as well as increasing stability on rough surfaces (real "bumps").

If you have modified your BMW's suspension, you can determine whether the bump steer has been degraded

with a simple test. Find a nice wide constant-radius turn where the car can be cornered moderately hard at reasonable speeds (right, a "skid pad"). Enter the corner under normal power and find the throttle and steering wheel positions which allow the car to negotiate the corner without making corrections (this may take practice). When you can go through without steering corrections, try this test:

Once the car is turning stably, punch the throttle and then back off completely, noting the car's reaction to each input. Punching the throttle causes the front end to lift (front wheels in rebound) and the rear end to squat (rear wheels in bump). Backing off reverses the situation. Any bump steer problem will exhibit itself as a noticeable change in the car's direction. If the car's reaction is not dead neutral it should show only slight trailing throttle oversteer or slight full throttle understeer. Even if you don't know how to correct any problem that appears, you will at least learn something about your car's behavior, and you can adjust your driving accordingly.

Jerry Coffey

Freude am Fahren



Service Reports

Those of you who have bought cars at VOB (among other places) are probably wondering about the Castrol guarantee. The way it works is this: it guarantees all parts lubricated by Castrol products, provided you have the lubricants serviced by your dealer at the manufacturer's prescribed service intervals. The guarantee covers 100% parts and labor for the first five years after the manufacturer's warranty runs out and then 65% parts and labor "for the duration." The best part of this guarantee is that it really works. My differential began to show signs of locking up at 33,000, and VOB installed a new differential <u>free</u>! I estimate that I'm about \$150 ahead right now.

Dave Roach

Racing Notes

Full-Time Racer

Nick Craw, director of the Peace Corps and racing driver extraordinaire (although no necessarily in that order), has recently resigned from his Peace Corps post to devote more of his time racing. He currently drives the number 64 Miller & Norburn BMW 2002 in the IMSA/B.F. Goodrich Racing Sedan Series. We wish Nick the best of luck in his racing career, although we're not sure he needs it-Nick is currently well in first place in the IMSA RS driver's standings.

Car and Driver Challenge

This year, <u>Car and Driver</u> magazine has offered to take on all comers with its Pinto in the Car and Driver Challenge race at Lime Rock Park, Connecticut on October 12, which is Saturday of a 3-day weekend. The competing cars are SCCA Showroom Stock Sedans. A number of people in this area will be going up to watch and work that event. Lime Rock is also the track where the Oktoberfest driver's school is being held. If enough interest is shown, we can arrange a caravan up to the track. If you're interested in going, give Dave Roach a call at 593-1875.

On the Cover

Ever wonder what your little car is doing while it waits out in that hot parking lot for you to come out from work? Now you know.

How About a Mugl

If you're going to the next meeting at the Carling Brewery, you'll need a mug to drink your beer from. Special National Capital Chapter mugs are available from the club store at the meager price of \$6. They are ceramic, white, and stamped with the NCC logo. Call Paul MacInnis at 449-6599 or Ric Cavallero at 871-1131.



It is with much shock and sadness that we note the death of George Burhoe. Although George was not a member of EMWCCA, he was a prominent figure in the Washington Sports Car Community, and his death will be felt by us all. For those of us who knew him, a special contribution to the Epilepsy Foundation of America is being made as a memorial. Send your contribution to the organizer, Rod McNeil, 7501 Democracy Blvd., #B-330, Bethesda, MD 20034.

Oktoberfest '74

Fantastic! There has been a change in the activities for Oktoberfest '74--the autocross will be a drivers' school at Lime Rock Race Course, complete with qualified SCCA instructors, all at no extra cost; sounds too good to be true.

Again the dates for Oktoberfest are October 18, 19, and 20 1974, and it is to be headquartered at the Red Bull Inn in Waterbury, Connecticut. Room rates are \$20 per day, regardless of how many people are in the room. So if you want to share a room with someone, càll me and I'll pair someone up with you! Save money, shower with a friend!

Caravan

There will be a caravan leaving at 3:30 p.m. on Thursday, October 17, from the parking lot of the Holiday Inn at the intersection of Route 1 and the Washington Beltway. If you want the trip up to be more enjoyable, give me a call at 871-1131 and sign up for this caravan.

Tech Session

All people who are going to O'fest and are planning to participate in the Drivers' School on Friday, October 18, should have their cars checked out, safetywise, before the event. For this purpose I will be holding a tech session at my house on Saturday, October 5, beginning at 10 a.m. Make sure that you bring a new set of brake pads if your old ones are worh (you can get them from the club store at a great price), as well as a change of brake fluid. Remember, you can't be too safe; I'm sure your safety is worth more than a set of brake pads. A good set of shocks is also important. Call me if you plan to come for this tech session.

Ric Cavallero

Editor's Addition

If you don't want to go to Oktoberfest to compete, you can still have a ball in Connecticut that weekend. First, on Friday, you can take the scenic drive to Lime Rock Park and wander around and watch all the maniacs try to race their cars. You can get some neat pictures, too. If TSD rallies aren't your game, then have fun on the gimmick rally, which is designed to let you see the countryside and tour interesting places. After a leisurely shower and breakfast, you can go watch all the clean car contesters frantically finish their preparations as the judges draw near. You'll see BMWs of all shapes, sizes, and conditions. You can talk to fellow BMW owners about their pleasures and sorrows, you can drink beer at the Bierfest, you can eat a huge meal at the banquet. If fun is what you're after, come to O'fest '74.

etc.

From DAS KUMMET, November, December 1972

Ed Phillips of the Tidewater Bey Em Vey Club 1 solution to a fuel pump that stops pumping. 1 want to replace the pump and a BMW pump is not a Volkswagen "Beetle" pump will fit. Usually is needed for a fix is to replace the diaphram a fuel pump rebuild kit. If the BMW dealer dc have one, a VW "Beetle" rebuild kit is a direc placement for about \$4.00.

From DAS KUMMET, April 1972

A distributor cap for the 1200 cc, 36 hp beetl the same Bosch part number as that for the 200 it wells for much less.

The key is the last three digits, 187. It mus hp unit, the 40 hp caps are larger.

SMALL ADVANTAGES AND DISADVANTAGES OF OWNING A BMW

1. <u>Disadvantage</u>. Having to park your car a mi from the grocery store when you go (or do you spend all your time and money on your car and live on worn out radiator hoses and motor oil? to avoid getting nicks in the paint.

2. <u>Advantage</u>. As you walk all that way to the (don't forget your water supply), knowing that won't pass a car that you'd rather own, except a rare 3.0 CS (oh, you already own a 3.0 CS? We

3. <u>Disadvantage</u>. As you pass a cop or a radar slowing down automatically, because you're <u>alw</u>. speeding.

As you can see, the disadvantages outweigh the advantages, when you get right down to it.

for sale

Rubber mats for 2002 - gray front mats with BM emblems, black rear mats. \$10 the set

Four BMW hubcaps for 1973 or earlier 2002 - th: perfect, one with slightly scratched BMW embler No dents. \$25 for all four.

Stock 1973 BMW steering wheel in perfect condi-

For all of the above items, call Dave Roach at

Wanted - hub inserts for Borrani steel wheels. Dave Roach at 301/593-1875.

1962 BMW 501 V-8. 99,000 Kilometers on speedo Sunroof, wood interior trim, immaculate. \$6000 Mike Mannix, VOB Datsun Sales 770-6100.



p.o. box 41046 bethesda, md. 20014

first class

Jim Miner 1909 Everglade Ct. Crofton, MD 21113

NCC Calendar

September

- 13 PCA Potomac Friday Night Rally 4. The last rally in the 1974 series. Starts Kettering Plaza, 1.7 miles east on rt. 214 from 495 in Maryland. Reg. 7 p.m., first car off 7:31. \$4.50. Registrar is Ruth Nelson (301) 299-2971.
- 15 MGCC Championship Autocross. Landmark Shopping Center, Duke St. & 195, Alexandria, Va. Reg. 8:30, first car off 9:30. \$4.00. Registrar is Dorothy Lewis (703) 532-3471.
- 18 BMWCCA Monthly Meeting, Carling Brewery, Baltimore, Md. See map and directions on this page.
- 21-22 SCCA regional races, Summit Point Raceway, W. Va.
- 29 BRSCC Outlaw Series #3 Autocross. Motgomery Wards, Rt. 236, Manassas, Va. Reg. 10:00 a.m. First car off 11:00. \$3.00, preregistered to Dick Smith (703) 354-3422.

October

- 6 BRSCC Outlaw Series #4 Autocross. See above for details.
- 6 U.S. Grand Prix, Watkins Glen, N.Y.
- 12 CAR and DRIVER Challenge, Lime Rock Park, Conn.
- 15 BMWCCA Monthly Meeting, Brickskeller, Washington, D.C.

next meeting

The September is being held on WEDNESDAY September 18 at the Carling brewery in Baltimore. To get there, take I-95 north to I-695, the Baltimore beltway, east to exit 9, which is Hollins Ferry Road. Turn left on Hollins Ferry, take the next left toward the plant, and turn left into the parking lot. Or take the Baltimore-Washington Parkway to I-695, go west to exit 9, and turn right (south) on Hollins Ferry to the Brewery. There's lotsa free beer--both Carling and Tuborg-so bring a mug. But don't forget you have to drive all the way back to D.C. or wherever. The program will be a fascinating tour of the brewery.





Wundercar!