

NEWSLETTER OF THE NATIONAL CAPITAL CHAPTER
OF THE BMW CAR CLUB OF AMERICA



SEPT/OCT 1989
VOL XXIV, ISSUE 5

der bayerische



IN THIS ISSUE:

WOODY, WOODY EVERYWHERE,
WOODY HAIR WILL TAKE YOU TO
AUTOCROSS, OKTOBERFEST,
AND COMPETITION CORNER

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Please Note: Changes of address are to be sent directly to National headquarters. Change of address form (and application form) at the back of this issue.



OK; You've seen his M3 on the cover, his profile on Page 1; Now meet Ray Korman, fresh from recent wins and records, at our next Open Meeting. See Page 3 for details.

FRONT COVER

Colorado Corral M3, 328, 507, M1 at Keystone's Lakeside Plaza.

Photo by Woody Hair

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'89 CALENDAR

SEPTEMBER

Wed 6	Board Meeting
Sat 9	"Back to School" Drivers School, <i>Summit Point</i>
Wed 13	Open Meeting
Sun 17	Oktoberfest Tour <i>Bavarian Inn</i>
Sat 30	Autoy/Autowerke Oktoberfest

OCTOBER

Sun 1	<i>der Bayerische</i> deadline
Sun 8	Vintage Races, Corral <i>Summit Point</i>
Sat 14	Winefest and Concours
Sat 21	Tire Tech Session/Driving School Inspection
Sat 28	TUV Transmission Tech Session

NOVEMBER

Sat 11	Ferrari & BMW Drivers School
Sun 12	Hot Shoe Drivers School
Wed 8	Board Meeting
Fri 17	Annual Dinner

DECEMBER

Fri 1	<i>der Bayerische</i> deadline
Sat 16	Holiday Social

1990

UPCOMING TECH SESSIONS

- auto sound
- cylinder head refurbishing
- differentials

• *Calendar is tentative* •

COMING EVENTS

BACK TO SCHOOL DRIVERS SCHOOL

Saturday, September 9

Time: 7:45am

Take a trip into the scenic mountains of West "By God" Virginia with your ultimate zoomer and spend the day at Summit Point Raceway observing the flora and fauna from the luxurious cockpit of your Bimmer. "Drift" your way to total relaxation as you and your car discover the oneness of Zen driving.

The "Back to School Drivers School" is a one day high performance drivers school for beginners and "experts" alike. No prior experience is necessary, the purpose of this and all drivers schools is to learn how to drive more smoothly and you will quickly see that by driving more smoothly you will be able to drive faster.

No special equipment is required; you must have a helmet that carries a Snell 75 or later certification and your vehicle must pass a safety inspection prior to coming to the track. Complete details are included in the registration package that you receive after you mail in your application.

Cost of the school is \$125 for BMW CCA members and \$145 for nonmembers; (if your application was mailed BEFORE midnight August 26, 1989, you are eligible for a \$25 DISCOUNT.)

As usual, workers are needed. The first fifteen workers to register with Mark Yaworski will be rewarded with a free lunch. Hey you drivers, the worker situation has gotten serious at some of the schools in the past, if you don't start bringing helpers with you, you are going to wind up spending half of the day flagging which will mean a reduction in track time.

Spectators are welcome, if they wish to join us for lunch, reservations must be made in advance and the cost for lunch is \$8.

If you have any questions, please call Mark Yaworski weekday evenings between 7:30 and 9:30 at (301) 972-8237.

WANTED

Drivers School "Roadies". Regular, reliable help needed at driving schools with responsibilities ranging from manning the gas pumps staging the cars in the pits, even guarding the gate. Call Mark Yaworski at (301) 972-8237, eves. to volunteer.

COMING EVENTS

OPEN MEETING

Wednesday, September 13

Tysons CornerMarriott Hotel

Time: 7:30pm

At this, our second in a series of open membership meetings, you will have a rare treat. **Ray Korman**, proprietor of Korman Autoworks, and successful team leader/driver of his racing BMWs has agreed to visit our Chapter and share his thoughts on a variety of topics we're sure to find interesting. Following a short official report of Chapter business, Ray will dazzle us all with his wit and wisdom. Perhaps you've already been dazzled by some of his latest race results: a new lap record at West Palm Beach, a new race average speed, and win, at Portland. Come and see Ray for yourself. We've rented a larger hall than usual to accommodate the expected crowd. There will be a cash bar and light munchies available. This meeting is not to be missed! For more information, call Cory Laws, at (703) 450-2310, evenings till 9:59.

Directions: The Tysons Corner Marriott is located just outside the Beltway at Route 7. From the Beltway, take Route 7 west, and turn right into the Marriott grounds. Roy Rogers is a good landmark.

FALL TOUR/BAVARIAN INN OKTOBERFEST

Sunday, September 17

Time: 9:30am

The annual trek to the Bavarian Inn's Oktoberfest will take place Sunday September 17. As usual, we will depart from the lot of the Greenbriar Shopping Center on Route 50 in Fairfax, VA. This has always been a very popular event, and this year should be no exception. The Bavarian Inn features authentic German food and drink, plus entertainment by an Oompah band. We will have a separate covered area in which to relax between polkas or pitchers. The tour, as usual, will be very scenic; winding through the small towns and horse farms of the Virginia countryside.

As I write this, I do not have prices for dinners, but plan on no more than \$5-7 per person. If it turns out to be more than that, the Chapter will pick up the difference for the first 50 who register. If you're interested, please call Cory Laws at (703) 450-2310 to

register, or for more details. Please do not call after 9:59pm. You can also get the latest information on the HOTLINE at (202) 397-5970.

Directions: From the Beltway, take Route 66 West to Route 50. Follow Route 50 approximately 3 miles to the Greenbriar Shopping Center on the left. We will meet in the lot near the Roy Rogers or McDonalds.

AUTOY/AUTOWERKE OPEN HOUSE

Saturday, September 30

Time: 10am 'till dusk

Everyone is invited to the 12th Annual Open House of Autoy and Autowerke in Rockville. There will be rare and unusual automobiles on display, and beer (German, dark and light), bratwurst, and kraut on sale with proceeds going to Children's Hospital. There will not be a swap meet this year.

Directions: Take 355 North to Nicholson Lane and make a right. At the fourth light (after railroad underpass) make a right onto Boiling Brook Parkway. bear right at the fork, make a right onto Schuylkill Road (second Stop sign) and the next right onto Wyaconda. 4954 Wyaconda Road, Rockville.

VINTAGE RACES CORRAL

Summit Point Raceway, Summit Point, WV

Sunday, October 8

Time: 9am - 5pm

For the first time the Club's Fall corral at Summit Point will be at the races for vintage and classic sports cars. The event will be part of a series put on by the Spoortscar Vintage Racing Association. What is a corral? Just a certain area adjacent to the track where we will all park our cars and get a good view of the races. A canopy will be provided so we will have shelter in case of rain. Some liquid regreshments will be provided, but you may want to bring your own along with a picnic lunch.

Cars participating in the races will range from pre-WWII classics such as Bugattis to early Can-Am race cars such as McLaren Mk6s. The cars are separated into appropriate classes and are pretty much prepped to

continued on next page

COMING EVENTS, *Continued*

Vintage Races Corral,

continued from previous page

the same condition in which they raced in their heyday. Walk through the paddock (no charge) to get a close look at the cars.

Many clubs will be having their own corrals and Summit Point is instituting the President's Club award to the club that has the best "presentation" of cars. Details are sketchy at the time of this writing, but we hope to have a large number of our vintage coupes, etc. on hand. We especially encourage all of you members with pre-war models to come out and show the diversity of cars in our Club. The various clubs will also be taking parade laps of the track between races. For those of you that haven't been to our drivers schools this will be an opportunity to see the track up-close and personal.

For information on the corral call Jon Miller at 739-0656 (Alexandria).

Summit Point is located 65 miles west of DC, between Charles Town, WV and Winchester, VA.

WINEFEST AND CONCOURS '89

Saturday, October 14

Time: 11am until 5pm, and then...

What began as a wine tasting has increased somewhat in scope. It all started when local winerys were contacted to check their availability for our wine tasting and we found that Prince Michel Vineyards is having a Harvest Festival on our tasting day. Not only is he winery having a festival, but a concours as well — all European cars are welcome. The BMW, Mercedes and Porsche clubs are participating and prizes will be awarded.

The theme is French this year, in keeping with the owner's heritage. It will include wine, food, music and can can dancers (I like that last part!). In addition, there will be an air show by the Bealeton Flying Circus (antique aircraft), crafts, mimes, magic acts and,

of course, tours through the winery. The festival will be held outside under a large tent so a little rain won't dampen spirits (that came out nice didn't it).

Prince Michel Vineyards is easily located on Route 29 just a few miles South of the 3rd exit to Culpeper, Virginia. The most direct route is West on Interstate 66 from the Beltway, exit at the Gainesville/29 South ramp (first exit after Manassas), bypass Warrenton on 29 and it's open 4 lane highway until you get to the winery. The drive is beautiful and only 4 stop lights after the Beltway. Time, at speed, is approximately 1.5 hours from the Beltway. Your return trip may be by the country roads, which are interesting and scenic. Pick up a Virginia map on your way out at the Virginia visitors Information Center on I-66 just before you get to the Manassas exit.

Concours entry is \$10.00, which includes admission for the driver and 1 passenger. To enter, mail a check with your Name, Address and 'Phone Number, Class, Make, Model and Year of your car, before October 1, to Jack Alexander at 13108 Frog Hollow Court, Herndon, VA 22033. He may be reached in the evening before 10pm for more information at (703)481-6615.

General admission at the gate is \$9, or by mail for \$7, which includes the wine tasting and everything except the food. The food, which will include French of course, will also feature German and other European cuisine. There will be light fare for the kids such as hot dogs. The admission cost is worth it for the air show alone. Address requests for tickets to: Prince Michel Vineyards, HCR 4, Box 77, Leon, VA 22725. For additional information call Jack Chandler at (703)560-8698 also before 10pm.

This outing sounds like a lot of fun for a full day. Let's all turn out and enjoy the great Fall weather. In addition, we are looking into the possibility of assembling a group to continue on down to launch an attack on Charlottesville for the evening and an overnight stay. I'm sure Mr. Jefferson would approve. If you are interested, give Jack Chandler a call at the number above. Remember: keep all 4 wheels down.



For up-to-the-minute news

NCC HOTLINE (202) 397-5970



COMING EVENTS

DRIVING SCHOOL INSPECTION

Tech Session: Tires

Saturday, October 21

Time: 1pm

Bridgestone will present their line of performance radials and discuss tire technology at Merchants Tire in Tysons Corner, Virginia. Factory reps will be on hand to discuss all aspects of tire selection and performance, and to answer any questions you may have regarding the proper tires for your particular driving habits. In addition to the discussions, Merchants will be providing free tech inspections for the November Driving School. Call Scott Coulter at 893-1515 for more information. Mark your calendars.

Directions: Merchants is located at 8350 Leesburg Pike (Route 7) in Tysons Corner. From the Beltway, take Route 7 West approximately 1 mile. Merchants is on the right across the street from Wendy's.

TECH SESSION

TUV Engineering: Transmission Rebuild

Saturday, October 28

Time: 10am

Come on out and learn how to rebuild a manual transmission! In addition you may have the opportunity to learn how to perform your own clutch replacement. The session will be held at TUV Engineering located at 7200 Westmore Road, Rockville, MD.

Directions: Take 270 North to exit Rte 28. Take Rte 28 towards Rockville and make a left on East Montgomery Ave (3rd traffic light); follow to N. Washington St; take a left to next street; make a right. Follow this across Rockville Pike (Rte 355) and bear left at the 2nd traffic light after the overpass (Horners Lane); continue on to the end (Horners Lane becomes Westmore). TUV will be on the left.

It's a Boy! Steve and Carol Haygood have added a new member to their family. No, not another Bimmer but a baby boy. Brenton West Haygood was born on August 3, 1989 at 1:33 P.M., weighing in at 9 lb. 4 oz. with a length of 21 inches. His first sounds were, "Dad, can I have the keys to the coupe?"

DRIVING SCHOOL

Joint BMW & Ferrari Clubs School

Sat/Sun, November 11& 12

Summit Point Raceway

Our Club has an opportunity in November to participate with the Ferrari Club in a driving school. I (*Gordon Kimpel*) attended the Ferrari School in July and had a wonderful time driving with three Testarossas, a Daytona, a 275 GTB, and lots of 308's and 328's.

The Ferrari Club is the host on Saturday. They have two run groups: Touring, for speeds under 85mph, with passengers welcome, and High Speed which resembles our schools.

The BMW Club School on Sunday is the proverbial "Hot Shoe" school for drivers with three or more driving school experiences. More advanced driving techniques are emphasized. A lot of fun quality track time is the goal. There will be several touring sessions for the Hot Shoe on Sunday to keep friends, track groupies, etc. happy.

Please note that if you do both schools, you must send two separate checks and applications as the two days are two separate club events. For costs and other information see the application form, to be found on page 17. Lunch will be available at the track through the Summit Point Concession Gourmet Restaurant.

ANNUAL DINNER

Friday, November 17

Details forthcoming

Don't forget to mark your calendars!

HOLIDAY SOCIAL

(formerly Black Tie Social)

Saturday, December 16

Time: To be announced

Stop! Forget the tux fitting. We never intended a dress code, just an attitude. Now no nonsense about attitude, and please don't use the Y-word! But do mark your Day-Timers™ for a fabulous Winter Holiday Social evening on Saturday, December 16.

President's Message

Getting down to Business. I'm happy to report that the National Capital Chapter has taken on a decidedly more businesslike air. In the past, we've allowed the Chapter to be run almost as a hobby, with success in spite of, not because of, the planning/management process. The financial situation we found ourselves in earlier this year caused us to take a closer look at the realities of a \$70,000 budget, and respond accordingly. We have streamlined our decision-making process, taken a closer look at how and why we spend money, and begun to map our expenditures against our income. This has allowed us to have a clearer picture of where we stand at any given point in time; not merely knowing the cash balance of our account.

Gearing up for the Future. As mentioned in my last column, the elections are rapidly approaching. I had hoped to organize a more formal election process, but was not able to with such short notice. We have some but not all candidates identified at this point, so we will handle the elections as in the past. Nominations will be from the floor at the Annual Dinner, and a vote will be taken. Nominations will be by consensus.

Exciting Happenings. We've got some great things happening soon. Ray Korman will grace us at our September 13 meeting. Ray is a very successful BMW aficionado, and always has good things to say. Please mark your calendars and plan to attend! In addition, our wine-tasting has changed somewhat. The Prince Michel Vineyards are having a wine festival complete with European car concours and an air show. We will be travelling to the vineyard, partaking in the activities, and optionally spending the night in the Charlottesville area. Tech Sessions return at Merchants Tire, which will host a tire tech session and drivers school inspection on October 21. See the coming events section for more details of these and other events.

See you soon...

Cory Laws

• Club Store •

Need an oil filter or an engine block? For the best deals in town, advice, sympathy or plain Bimmer indulgence, call our friendly Club Store operator, Steve Haygood, at:

• (703) 450-9175 •

Lynn Yaworski

Candidate for Treasurer

For those of you who do not know me, I have been the treasurer of the National Capital Chapter for the past two years. I was first introduced to the BMW CCA in 1985 when my husband (then boyfriend) took me to a drivers school to help — I was hooked. We have hardly missed an event since then; in fact, we planned our wedding around a drivers school. In mid 1987 I learned that Woody Hair was planning to step down as treasurer, I offered to run for the position and I was elected at the Annual Dinner that November. During my first year in office, I was the "new kid on the block" and did not want to challenge too many decisions because I was unfamiliar with how the club was run. This past year has been a real challenge, the year had barely gotten underway before we were deeply in debt. I have managed to get our head above water by cutting expenses without adversely affecting member services. I would like to continue as treasurer because I would like to see the Club through its financial crisis into a state of financial security. My qualifications include two years of accounting in college and a knowledge of computers which has allowed me to use state of the art accounting software to track and forecast the financial status of the Club. It has not been the easiest job but I feel I have done it well. I have plans and ideas for the continued success of the Club and would like to have the opportunity to see them to fruition.

From the Editor

There are some great events going on and a small group of some very dedicated, talented and fun-loving people making them happen. The kind of people you'd probably like to know. Come on out and meet them at the Open Meeting. Consider joining them. You've paid your dues, now join the Club.

Nuts, Bolts, & Cross-threadings.

What happens when a nut doesn't quite agree with a bolt? Well, it depends upon how hard you torque them. We hope you're enjoying the increased technical input into dB. Got a favorite topic, an always-wanted-to-know, a problem perhaps, drop us a line.

A Few Words From the Drivers School Coordinator

I had planned to print a list of the Maifest door prize donors and winners but through a feat of unequaled organization, I have lost all of the Maifest '89 door prize records. There is no excuse for this blunder and I apologize to all of our advertisers who were generous enough to donate services, parts, toys and clothing for the Maifest dinner. If I ever find that list, it will be published ASAP.

Every now and then, someone new comes out of nowhere and asks if there is anything that they can do to help with the running of an event, one of these rare people is Skip Menzies. Shortly before Maifest, Skip called me and asked if he could help at the drivers school and without no coercion he agreed to pick up and set up lunch for the Saturday school. Let me tell you, Skip and his two young nephews did a marvelous job, they cleaned the pavillion behind the tin shed, set up the lunch and cleaned up the mess after we were all done. Even more remarkable, Skip and his two helpers returned for the Firecracker school and repeated their fantastic performance. Thanks Skip, your help has been greatly appreciated.

You may not realize it but the Drivers School Program is in trouble. The costs of running a school are increasing: insurance premiums have doubled, track fees have gone up and a guard is now required at the track gate. Econ 101 taught us that there are three ways to deal with rising production costs: decrease expenses, sell more units or raise the price of the commodity. Expenses have been cut by changing suppliers for lunch and changing the after school beer tasting to an event sponsored by Quality Car Services (thanks Terry) but that has not been enough. Enrollment in the schools has been dropping leaving us stuck with jacking up the event fee again which will force enrollment lower which will... Well, you get the picture.

What is going on out there? The people running this club need your feedback if things are to change/improve. Drop a line to the dB and let us know what we are doing wrong. Are there too many drivers schools? Bad dates? Too expensive? What? I have distributed roughly 600 survey forms at drivers schools over the past two years and I have gotten about 30 sent back to me. If everything is perfect, why is drivers school enrollment dropping?

Mark Yaworski

Well Deserved Praise of the July Drivers School

Letter reprinted here was addressed to der Bayerische, dated July 25

Dear Sirs,

The July 1 drivers school at Summit Point was the best yet! I can say this despite having my throttle stick coming out of turn 1, receiving a dent in my bumper from the car parked(?) behind me, and discovering that my shifter was hanging free in my right hand as I dived toward turn 5. With the expert help offered by Max Rodriguez, Terry Luxford, and Bob Gammache I was able to run the entire day. A very apologetic driver promptly delivered a new bumper to fix the dent.

The school ran like clockwork from the timely start through the refreshing finish courtesy of Quality Car Services. The experience of planning and executing many driving schools by the driving school coordinator, his wife, and the head instructor was evident everywhere.

The school started with a tire pressure consultation. After a few hot laps around the skid pad, a tire pyrometer coupled with the expert interpretation of Terry Luxford and Bob Gammache was used to determine the optimum tire pressure for each car.* My tire pressures were changed significantly. The changes make a major improvement in the balance and stick of my car on the track.

Another feature that is becoming standard at our Summit Point schools and deserves rave reviews is the practice of walking through a turn with the head instructor at each school. By getting up close and personal with the turn, you get a real feel for the proper line and learn precisely where to put your wheels for the quickest traverse. I have had the benefit of this schooling at 3 of the Summit Point corners so far. I look forward to learning the rest.

Let me close by thanking the many excellent instructors, the course workers and all of the other helpers who unselfishly volunteer their time so that us drivers can enjoy one of life's most exhilarating experiences. I especially want to thank Mr. and Mrs. Mark Yaworski for coordinating consistently great drivers schools, and our head instructor, Bob Gammache.

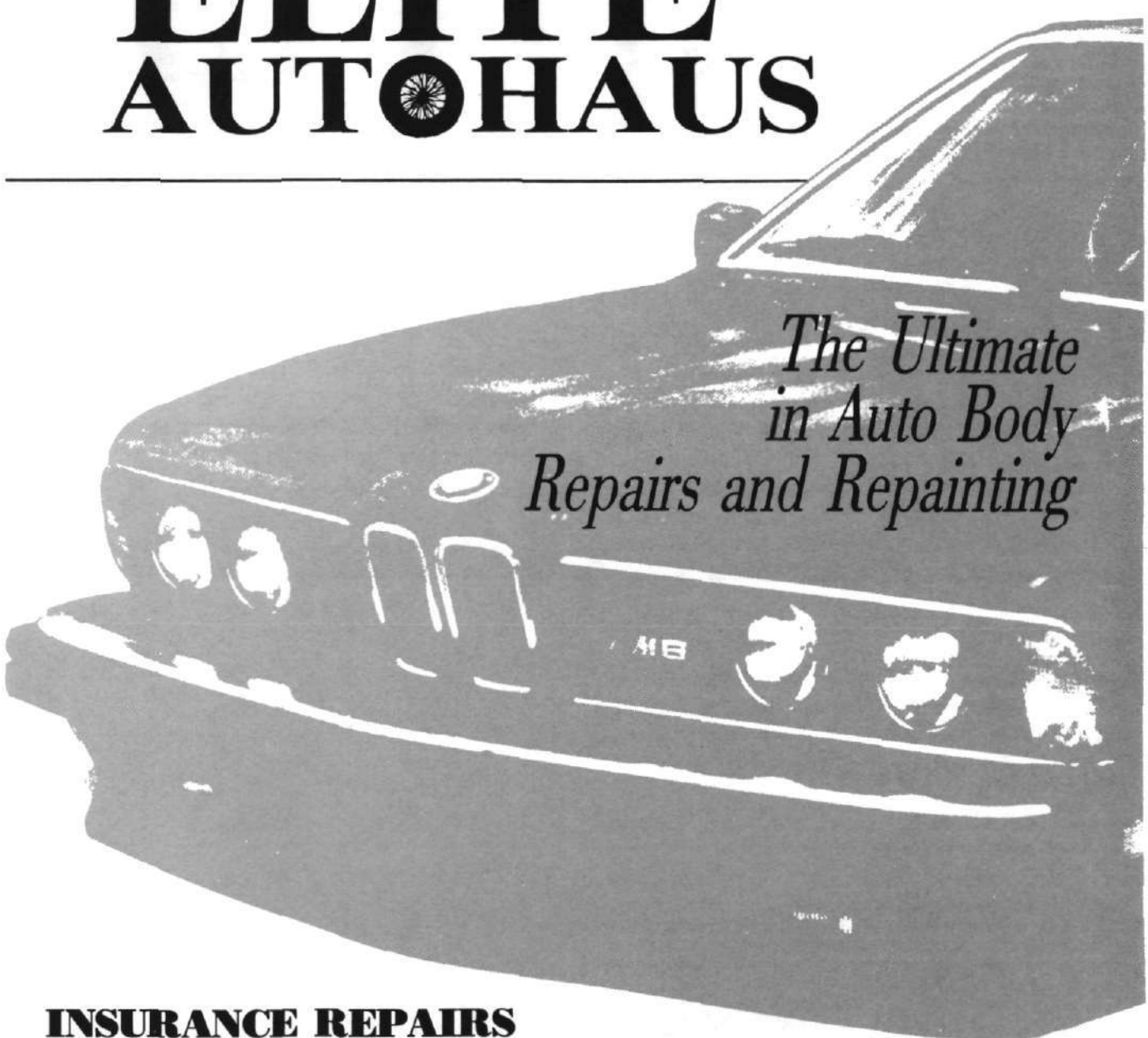
Sincerely,

Rob Woolley

*See Page 21 (in *As the Wrench Turns*) for table of optimal tire pressures.

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Road Apples Rally

Sunday June 18

Have you ever thought of following a set of instructions to take a Sunday drive through the picturesque horse country of Virginia? Well those who attended the Road Apples Rally did just that. This novice rally marked the second year the National Capital Chapter held such an event after a long absence.

For those who have never rallied, you are missing some fun in your Bimmer (or any car for that matter). Briefly, one must follow a set of clues or instructions as close as possible. This is to ensure that when a checkpoint is encountered along the course, one is obeying the rally master's instructions. If not, one accumulates penalty points (number of seconds). This nifty event allows driver and navigator to test their respective skills, share a couple fleeting views and operate as a team. Officially, the speeds are all reasonable and within the legal limits. Traffic citations are grounds for disqualification.

On the sunny Sunday afternoon of June 18, fourteen cars rolled out of Greenbriar Shopping Center on Route 50 in Fairfax, to boldly tour the unknown. The calibration leg headed us away from the suburban sprawl (and this took a while) until we were instructed to turn left onto a narrow, two-lane tree-lined road. Plenty of curves followed, marked by those yellow diamond shaped signs which indicate, mostly minor, challenges to maintaining the rallymaster's designated speed. And so it began, up and down deserted roads, on a very temperate day.

Along the twists and stretches appeared our check-

points. Sharp eyes were needed for the "do it yourself controls." While waiting at a checkpoint to start the next leg of this self-competitive event, concerns arose: "How did we do? How are we doing overall? What comes next? Let's do our next calculations." In Middleburg, our instructors indicated a short break to grab some food or stretch. Here is where Lynn and I spotted a "road apple" in a country bakery. We purchased one and went off on part two.

The course seemed more relaxing than in part one, perhaps having come to understand the instructions, fill our stomachs, and assess our progress. Things went smoothly, but not necessarily as timely as hoped. At one point we were fortunate to have brought along our Passports to enter the rallymaster's foreign curve. *[Ed. Beware too of familiar domestic curves as you may be just as heavily taxed for carrying too much speed "across the border."]* We passed through without incident, though this did require new calculations and unofficial changes. Soon we found ourselves heading into more congested roads, then our final destination. All the participants were accounted for and the event came to a blissful close.

Many thanks are in order to those who volunteered their time for this event. A special thanks to Rally Master Mike Leeper and the registrars Woody Hair and John Hartge. Without the capable checkpoint crews everyone would have simply gone driving by, racking up the penalty points... thanks for your efforts. For those who like numbers and cars, here is the list of finishers. Lastly, for those who are interested in knowing what a "road apple" is, as found on our trip, see Lynn or myself at a future event.

Alan Warner

Road Apples Rally Results

Driver/Navigator	Car	Score (seconds)
Ricardo Puig/Gonzalo Puig	Bavaria	156
Fred Kuhnert/Martina Kuhnert	530i	332
Jim Harrison/Suzie Harrison	RX-7	381
Mark Saunders/David Lewis	528i	444
Dwight Derr/Tania Kastelic	528i	497
Mike Surdyk/Wendy Hayden	528e	556
Joe Pandolfino/Judy Pandolfino	535is	729
Fernando Puig/Scott Fuller	2002	750
Alan Warner/Lynn Sures	2002	844
Mike Early/Wendy Early	633 CSI	896
Jon Miller/Sharon Miller	320i	947
Adam Koons/Stacy Surla Koons	2002	1015
Alan Taffel/Martha Goodwin	325is	1124
John Hydro/Angelo Mangano	635 CSI	1402

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Technical Backfire

Letter from Jim Rowe, Metric Mechanic, Inc.

The *der Bayerische* is an excellent chapter Newsletter and you're fortunate to have so many great technical writers...Max Rodriguez, Terry Luxford and John Hartge. We appreciate having been mentioned by Max in the July/August Issue as this affords us an opportunity to expand on the information he gave about our company.

Twelve of us make up Metric Mechanic. We're enthusiastic about what we do here and always eager to answer questions and explain our ways. And explaining is often necessary because one sure thing about us is—we're not exactly conventional. This is both our crown and our curse in that it tends to polarize opinion.

But, although we go our own direction in many respects, we still use what we consider a creative, yet sound, engineering approach in developing Metric Mechanic products. After all, its at least in our own best interest to be careful. We love this work and want to stay in it! While striving for the new and improved, we're also pursuing the proven.

When developing a new product, we first engineer out the problem areas (as we see them) and then add in a new higher level of performance...the "Ultimate Transmission" for example. It was already 3 1/2 years old when we introduced it nationally. It had been race proven, consumer tested and offered superior longevity with unrestricted shifting style. Since 1985, we've produced hundreds of these each year backing them with a 5 year warrantee (that's 5 times as long as a factory warrantee).

Our engines? We were interested in totally upgrading the conventional 2 & 3 liter engines. Again, our goals were to improve weak areas, then add more power through increased torque and finally to maintain stock driveability.

The quickest way to add meaningful torque is to increase engine displacement. This means an increase in bore and stroke. Initially, we developed a mechanical method for checking cylinder wall thickness. But what's safe? This puzzle was tackled by testing the outer limits first. We built 7 engines with the cylinder walls stressed to 94mm...and sold them to good friends in the Kansas City area. After one year and no failures, we felt confident in establishing 92mm as the standard bore size for our 2200 engine.

Later, we again offered a 94mm 6 cylinder "Big

Bore" for a short time. Using an ultrasonic tester (non destructive wall thickness test), we hand selected non-Siamese blocks and soon discovered that some blocks made by BMW in the past were very close to Siamese style and could safely take the 94mm bore. but in the end, our inability to supply enough of these blocks to keep up with the high demand for this engine...led to its discontinuation.

At present, 94mm boring here is restricted to Siamese engine blocks only. Getting back to the cylinder wall thickness of a 2200 or 3500 engine, its approximately .180" on the major and minor walls. Also, the cast iron used in a BMW block is very malleable - ie. tough! The bottom line here is that 92mm is a good safe bore limit and 94 is possible. That's our thinking on the matter and we base it on theory and experience. In the 4 years that we've offered these engines, we've NEVER had a cylinder wall failure—NEVER!

What about using an 89.5mm piston and the M3 (84mm stroke) crank in a 2 liter engine? This is a hypothetical engine (about 2113cc) and would require several adjustments in its creation:

1. The piston is going to stick about 2mm out the top of the block;
2. The skirt of the piston will hit the ocunter weights

(the M3 has much larger counterweights);

3. The nose of the M3 crank is 34mm vs. 22mm for a stock 2 liter crank so the front timing chain sprocket and the front seal and pulley all need to be changed.

We've used the M3 crank in our 2300 engines (92x86 stroke) and we liked the engine so much that at one time every available M3 crank in the country was on our shelves. The only problem was that this engine was just too expensive for us to build. In fact, by the time you read this, our 2300 engine will be history...having been replaced by a "new" 2500cc 4 cylinder engine...the smoothest 4 cylinder we've ever experienced.

By the way, we're also building a 4000cc 6-cylinder engine now. Both the 2.5 and 4.0 liter engines are currently available but restricted to local (Kansas City) installation.

Engine warrantee? In a nutshell, its a two year prorated warranty...but in reality we don't follow a strict formula. Our basic concern is not to limit our liability but to be fair. Our track record to date is not perfect but we feel it is excellent. Anyone wishing to get more details on engine warranty coverage can call or write us for our catalogue or else just talk to me— Jim Rowe at Metric Mechanic, Inc., P.O. Box 4439, Kansas City, MO 64127—Telephone (816)231-0604.

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SPRING & SUMMER SPECIALS ON RECARO—MOMO—VDO—BILSTEIN—HELLA

English Driving

The first thing you notice is that everyone drives on the wrong side of the road. Well, actually, the left side of the road — but it sure *looks* wrong. To make matters worse, they went and put the steering wheel on the right side of the car (that's wrong). This means the average colonial tourist spends a lot of time trying to shift the door handle.

But it gets worse. There's too much car on the left side. And, right side narrowness notwithstanding, the roads give too little leeway between stone walls and oncoming cars.

This started out as a discourse on the adventure of British Motoring, but it does sound more like Driving in Hell, no?

Naah.

You cannot imagine the unbridled pleasure of cruising at an inconspicuous 92 miles an hour, through verdant, gently rolling countryside, with only the occasional 944 or Ford Sierra to justify a dodge (no pun intended) to the left to let it whoosh by. Oh yes,

FORD. You see, they don't fetter cars with anti-pollution ballast over there, yet. The abuse-a-car we were entrusted with, were anything like it to be made available in this part of the world, would find itself quickly in the stables of this writer.

The locals are quick to point out the impropriety of speeds exceeding about eighty miles per hour, but they do not have our perspective on the relative conspicuousness of the constabulary vehicles. All of the cop cars have brilliant, wide day-glow orange stripes down the sides and roof. The contrast against the pastoral scenery is quite striking.

The Brits also make use of a road sign not imagined in our fondest dreams:

"POLICE SPEED CHECK ZONE"

The remarkable thing is, despite the seemingly excessive rates of transit, the driving as a whole is wondrously disciplined. One of the most intelligent conventions is the practice of signalling right (think about it) when you come upon a relative slowpoke in the hammer lane that you wish to pass. Since the

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English use their mirrors, it is rare that you even have to lift off the throttle to make a smooth, clean, safe pass.

Wow. What a concept. Makes you wish we had driver training in this country. Another curious aspect of British roadways (one, in fact, that has stressed the coronary capacity of more than one American visitor) is the "Roundabout". Now there's a concept. There are no intersections as we know them. Instead, every cross-roads is implemented with a traffic circle. Image Chevy Chase circle at 60mph. 'Nuff said.

As you, Gentle Reader, can see by now, driving the British highways is not to be taken lightly. It is nonetheless, a delight to travel across a country so rich in culture and history with utmost efficiency. And not half so hazardous as you might think. The most serious compromise to the rental rocket in the hands of Your Faithful Servant was the scratchings of the peacock whose favorite roost was the arrest-me-red Ford Escort XR3i.

Keep the shiny side up.

Glen Stewart

A Day In Class

Firecracker Drivers School

Formula One Racing has its "professor," Alan Prost, and we in the National Capital Chapter are fortunate to have a professor, too, in Bob Gammache. Our professor held class in the form of the Firecracker Drivers School on July 1, and I was lucky enough to be a student.

Bob is a tall, friendly man, more like a "Good Ol' Boy" from NASCAR than a *prima don* from Formula One, but a short walk with him around the Carousel at Summit Point reveals a passionate student of the art and science of racing. Great teachers never cease being students, and it's evident that Bob is constantly studying ways to improve. As Bob King, another of our racing instructors, pointed out, one can learn by teaching, by verbalizing what almost comes instinctively in traveling the two miles of Summit Point at speed.

After walking the Carousel with Bob Gammache

and noting the exact spots where we were to try to place our cars, we had a different kind of lesson, one in the care and preparation of the tools of our trade — our cars. We went to the skidpad, where Bob and Terry Luxford had us heat up our tires so they could measure performance by degrees of tire temperature. Terry used a tire pyrometer to measure how our tires were gripping the track and advised us on tire pressures. [Ed. See "As the Wrench Turns" this issue where Terry summarizes his advice according to which car you drive.]

After that, it was out onto the track to test our skills. I was fortunate to have Bob King ride with me for an entire half-hour session, coaxing me to take just the right line, suggesting improvements, and applauding me when I did it right. I don't think I drove any faster than when Bob was right there as coach and witness.

I did go much faster in the afternoon, but not as a driver. I rode with Bob Gammache in his ITA 2002tii. Overall, my impression was this: If driving my street car around the track is an effort to coax myself and the car towards our limit, Bob's driving his race car is a study in controlled violence. The precision driving and coordination I struggle to achieve, Bob takes for granted as he pushes his car to its physical limits of adhesion. As an example, consider turn one: I approach the turn at about 105 mph (on a good lap) and get on the brakes at the first braking mark, never sure that I can bring it down to the 40 mph or so I need to make the corner. Riding with Bob, we'd approach at about 120 and wait until about halfway between the second and third braking marks to switch from full acceleration to full brakes in order to negotiate the turn at 50 mph. Each time I was sure we weren't going to make the corner; each time, we did. Riding with Bob gives a new appreciation of his skill as a driver and of the amazing ability of the car to accept the violent forces he makes it apply to the road. Once again I realized that the limits I approach when driving Summit Point are my limits, not my car's.

Leaving the track at the end of the day, I was never more sure of my abilities and my car as I was that Saturday. I thank Bob Gammache, Bob King, Terry and John Luxford, Mark Yaworski, and all of the other instructors and workers for an invigorating and instructive day in class.

Oh yes, one more detail: It was fun. Boy was it fun.

David Roach

Max Tech

Winterizing, Oils, Tires, Cheap & Fast

By the time you get to read this, Summer has past and now some other priorities take place. It is also a time to begin to get the car ready for the winter. **WINTERIZING:** To start, give your car a through inspection. Check the belts, hoses and replace as necessary. Check coolant(if older than one year, I replace) but you are safe up to two years. How about the brakes. Have the hydraulic system flushed. Check the tires(also the spare), washer fluid and of course the wiper blades. Before going on a winter trip, throw a blanket, flashlight, flares, a small shovel etc.. just in case. A portable CB would not be a bad idea. I bought one at BEST for \$39.95 and it is great.

OILS

The oil during this cold climate will depend on where you keep your car. If your car is garaged, 20W50 All Climate is fine, but if it sleeps outside, 10W30 is the ticket. Recently I started using synthetic oil in my 530i(1977). I immediately noticed smother idle, faster rev's and better fuel economy(4mpg +). I have been warned many time times about the use of synthetics. The warning has come from the fact that if you have a tired old engine, the oil will find its way out. Several years back, I had a problem with my 3.0

CS while using synthetics at a driving school, but the damage was not due to the oil but rather my own negligence. The damage resulted in a rod bearing failure. Would I switch to this permanently? The answer is no. Not only is synthetic much more expensive, you still need to change it. Maybe not as often as 2-3K miles but definitely at 5-7K miles. This is because the oil gets contaminated just as with other oils. How would you like to know the condition of your engine by examining your oil? As you know, oil is the blood of the engine. Just as we get our blood checked to determine certain physiological conditions, the same is for the engine. A friend and club member, couple years back told me that ever since he had bought his 533i, he was getting his oil analyzed every time it was due for a change. Thru this analysis, he was able to determine, how rich or lean the mixture was set, excessive wear, and if there was water in the oil. This last one was noticed once and immediately took his car to Evergreen Motors where they found the water pump to be defective. If you are interested in getting information and an oil kit, the company is: Minnesota Valley Testing Labs at 1-507-354-8517. I believe the cost is about \$10.00.

TIRES

When buying tires, it is good to know a little about the brand you are buying. As I mentioned in the last issue, I am from the YOKOHAMA Club, thus I think they are the best all around. Again this is my opinion

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based on experience with Goodyear, Pirelli, and Michelins. When buying tires, people fall into what I believe two categories. Those in Category 1 (keep it stock) and Category 2 (improve on stock). If you are one of the fortunate many that got TRX tires as standard equipment, you don't have many choices. Your best bet is to remain with TRX or get another set of rims. Now there is nothing wrong with the Michelins TRX tires, the problem is that being a unique size, not many people have them in stock. Going back to the two categories, Category 1, is self explanatory. You want to remain with the stock size tire but may want to improve in WET handling. Here look at the Japanese tires. Yokohama has several models, Bridgestone, and a good but inexpensive is Falken. These are just a few. Now for those in Category 2, you have several options. As long as you have deep pockets you can go the the ultimate set of wheels and tires. This type of combination could easily set you back from two to three thousand dollars. First analyze what you want. The following chart will give you the most for your money:

2002/320 Use Stock rim with 205/60/13 tires. Rim size up to 6" require no surgery to the fenders. You can also use the 318/325 wheels & tires (14") 318/325 You can move up to a 15" wheels. Max 7" rim width.

5/6/7's 15 X 7 rims all around are recommended, but you may like 16" better. Keep the same tire size front & rear. The best combination for the money is 15 X 7 with 215/60/15. As I stated earlier, you can go full out and spend a bundle. I am using 15 X 7's with 215/60/15 on my 5 series and it is great. Remember, the bigger the footprint in the wet, the more hydroplaning you'll experience and the more dangerous is to drive.

SLEEPER CARS

Ok, so you are looking at a second car. You want a fast car but can not afford an "M" car. Well, I got an interesting choice for you. I recently had the opportunity to drive, the MERKUR XR4Ti. You know the weird looking one. The one with the two wings in the back. This car by all means is almost as fast as the M3. The handling is not as brisk as the M3 but nothing a little fine tuning can't fix. I recently priced one in the paper 1986 with 28k miles in excellent condition for \$5,800. This car in Europe comes with a DOHC Turbocharged Cosworth Engine and a better suspension. They currently race against BMW, a similar Dual as they had in the early seventies.

Max Rodriguez

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Home Telephone: (703)978-6599



BMW CCA "Hot Shoe" School: Sunday, November 12

All drivers need to have successfully attended at least three (3) previous schools. NO NOVICES. There will be several touring sessions for drivers attending the Hot Shoe.



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SOME ENGINE MODIFICATIONS MAY BE ILLEGAL
FOR STREET USE

In As the Wrench Turns, each issue, Terry Luxford, with 30 years of street, track and full dyno experience, tells us what he knows

ENGINE SECRETS—REVEALED

Think of the engine as a heat pump. It turns the heat of the combustion into twisting force at the crankshaft. You can increase this force by increasing the heat; e.g., raising the compression ratio or increasing the timing advance. We aren't going to get into any theory; rather, we are going to make empirical observations aimed at improving the street performance.

Keep in mind that this heat pump is a system and changes have to be evaluated in terms of the effect(s) on the system. Some of the less desirable effects result

in subtle problems in tuning or refinement, restrictions in operating range, or limitations to longevity.

Unfortunately we are going to be driving our creations into the 1990s where fuel efficiency and clean emissions characteristics will become far more advantageous than they are today. So this isn't going to be about race cars or even the ultimate street racer. Just as we did with suspensions, this is going to tie some trends to some hardware so you can approach a rebuild/restoration/reincarnation with some idea of what to expect when you are finished.

CAMSHAFTS

The camshaft is the brains of the group. The lift, duration and especially, the lobe center determine the rpm band that the engine will operate within most efficiently.

Cam Type	Lobe Centers ¹	Practical Power Band	Compatible Int System
Stock	112°-114°	3000-5500	Fuel Injection or Down Draft Carb(s)
Reground Stock	112°-114°	3000-6000	Fuel Injection or Down Draft Carb(s) ²
280-290 Schrick	108°	3000-6500	Fuel Injection or Down Draft Carb(s); Side Draft O.K. ³
300 Factory	110°	3000-6500	Fuel Injection; Side Draft O.K. ³
304 Schrick	105°	3500-8000	Side Draft Carbs ⁴
324 Factory	105°	4000-8500	Side Draft Carbs ⁴
316 Schrick	100°	4500-9000	Side Draft Carbs ⁵

¹ Measured, therefore, approximate. If you want to know the "real" values, talk to the cam grinder, his equipment is 102X the accuracy of the common machine shop—for only this measurement—and 1014X for measurements like slope.

² Reground cams offer some advantages in power but are more inclined to break rockers when the rpms get too high. Their \$100 cost makes them attractive but you must be *very* careful about revs.

³ Remember the objectives: the side draft carburetors will make more power but set-up will be fussy and require seasonal adjustments.

⁴ This is really the practical limit in street-worthy engines. These engines, side draft carbs and all still accommodate AC and meet emission specs. Side drafts don't return enough horsepower to justify the costs, however.

⁵ Currently, these are the outer limits of streetability. Forget AC and in-town conditions but the raw power is neat. Also neat is the ability to meet emissions specs. Just remember that the minimum *cruise* rpm is 5000 and you must be doing 5500, *minimum* before you can go to wide open throttle. This is, indeed, the outer limits.

continued on next page

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As the Wrench Turns continued from previous page

PISTONS

Use 9:1 or 9.5:1 pistons where you are going to use a stock cam or a regrind on a stock cam. You will find 10:1 to be pretty fuel sensitive; i.e., the engine will tend to ping at the lower end of the power band.

When you decide to use the hotter cams; i.e., the "factory" 300° cam or the Schrick 280-290° cams then use 9.5:1 to 10:1 pistons.

When you use sidedraft carbs you *must* use 10:1 pistons—use 9.5:1 only if no one makes a 10:1 piston.

When you get deeply enough into a motor to change pistons, it is best to have the block bored and use an over size piston. Use the biggest pistons available (+1.0mm) and have the machine shop deck the block 0.010". This ensures plenty of squish area and a practical minimum squish volume which translates as higher efficiency and reduced tendency to "pinging" (detonation).

I have run engines of greater than 2mm overbores without problems. Also, now that you are designing your engine to operate in harmony with your intended uses, you may expect 10 to 15 years of reliable performance. By the turn of the century I suspect that our transportation needs will be handled very much differently than today.

COMBUSTION CHAMBER

Alex von Falkenhausen knew a lot more than you or me. He designed the combustion chamber and the *only* thing you can do is to remove the sharp edges from the aluminum surfaces. You can do it with a pocket knife. Don't touch the seals, valves, or piston crowns.

CARBURETION/FUEL INJECTION

Once you have selected the powerband, the carburetion/fuel injection system choices are more clear. If you have fuel injection, keep it; it's far more simple to accomodate. You have a lot of choices in down draft carburetion; SOLEX, WEBER, or HOLLEY. On the scale where 1 is best:

	POWER	EFFICIENCY	EMISSIONS
SOLEX	3	1	2
WEBER	2	2	1
HOLLEY	1	3	3

EXHAUST SYSTEM

Jere Stahl makes the best headers. Period.

TIMING

Use 38° BTDC total advance.

BOTTOM END

Balance and size the rods, crank, pistons, etc. Shaking your motor to pieces wastes a lot of power in the process. Send the parts to Bob Reese; he's the best.

Be careful of "stroker" cranks, they aren't useful at high rpms; i.e., they will work O.K. at street stresses but will increase the side loads on the cylinder walls from the pistons. The ring seal, piston skirts, and the cylinder walls will suffer. The fundamental problem comes from the connecting rods, which are nearly too short for the sock stroke. Remember these are supposed to be 10-15 year engines.

INTAKE & EXHAUST PORTING

All the big gains, particularly those of the last 15 years, have been on the exhaust side of the heads. That is, a careful matching of the exhaust ports to the exhaust system has been the most effective force in racing and street engines.

The concept of surface turbulence has been in the patent literature since before 1920. Essentially, proponents of using surface turbulence on the intake side claim significant gains in fuel economy, as well as more power. The notion that a wide open throttle fuel requirement for an engine of 30% greater displacement calls for 20% less fuel isn't reasonable—and didn't come true for us.

Terry Luxford

SAVE BOUCOUP BUCKS!

Group Purchase of 2.5 lb HALON Fire Extinguishers

(made by American LaFrance)

Send your name, address, telephone numbers and Club Membership Number, along with a check for \$30 made out to BMW CCA, to P.O. Box 685, Arlington, VA 22216

Real Time Problems

I. Lydia writes with a problem with a 320i which is odd: In rush-hour, the **temperature guage** will touch the red and bounces thereafter.

- If the bouncing guage is accompanied with a loss of coolant, then it is time to fix the loss as the sender for the guage is "seeing" splashes of coolant and the engine is close to death.

- If the guage is affected by a change in the electrical load, e.g., flashing the passing signal or tooting the horn, then the guage reading is most likely in error because of a problem in the guage ground circuit.

- The guage sender and the wiring, in that order, are the least likely source of the (mis-)information. But, check the sender for signs of corrosion at the mechanical or electrical connections. You never know.

II. Front End Problems (A) for '82 and later 5-Series: Is your steering more vague than you remember that of the new car? And do you have feathering on the inside or outside of the tires on the front of your car?

- Have your service pro check the ball joints and caster link bushings—they're worn out. It's a simple check with the car on the lift, use a large set of "water pump" pliers to check for vertical play. Anything over 1/8" (what's that in millimeters?) is bad! While you're at it, watch what happens to the alignment when you check the ball joints and you will understand why the feathered material left you tires. We are seeing the problems between 40K and 80K miles.

III. Front End Problems (B) for '84 and later 3-Series (and some manufactured in March 1983):

- I am seeing the sickle-arm ball joints and the bushings go bad. The symptoms are the same as the 5-series—vague steering and feathering of the front tires. These problems are showing up between 30K and 70K miles.

IV. Tire Pressures: After some work on the skid pad and the track with a tire pressure guage and a tire pyrometer at a past Drivers School, we evolved optimal pressures, which follow. Everyone's handling "feel" was much improved.

- If the ride is too harsh for Pot-Hole City, try 1 psi less, front and rear, but no more than 2 psi less. These pressures will enhance the tire life, too.

ENGINE GROUP	psi FRONT	psi REAR
Big 6	36	34
Small 6	36	33
320i	35	32
2002	33	30

As you may be aware, the National Capital Chapter has put on one "Eagle-Eye" and two TSD rallies in the last 14 months. The turnout for these events has not been great but all of the participants' comments to me has been "why don't we do more?" Well one problem is that it takes an awful lot of work and a large number of workers. For several years now this column has encouraged Club members to participate in the two annual beginner rally series put on by the Washington Rally Club and the Branded Club. Several have done so with varying degrees of success but I think we all learned something and had fun in our Bimmers while doing so.

Doug Sheatsley, rally writer for the weekly STOPWATCHER, has mentioned the fading interest in rallying in the Washington-Baltimore area several times lately. The following is an excerpt from the July 21 issue: . . .

"We were reminiscing about the days when lots of clubs (not just three) used to put on rallies in the DC area. And, as the Editor pointed out, some of those clubs are still in existence today - and he wondered what happened to their rally-putting-on activities. The clubs prominently mentioned in this discussion were the marque clubs - BMW and Porsche primarily - and the Editor suggested that I chide them a little to see if we couldn't maybe strike a nerve and get them back into the sport.

Since that time, two things have occurred that will let me write this column with a little more background. While meandering around some back roads a couple of weeks ago on a nice Sunday afternoon, I crested a hill and what did I find but a checkpoint sign . . . so I pulled over at the timing car (and immediately complained about the time they had given me) . . . I turns out this was a BMW Club members-only rally put on by Mike Leeper. Considering that everyone in the club who even knew what a rally is was working the event, they still got 14 cars out to compete. Now 14 may not sound like many, but considering that these are all basically rally novices who don't run the MWCSCC events, it was excellent. Of course now the trick is to get some (or even better, all) of them to come out for a "real" rally, and we could almost double the attendance at many of our rallies. And maybe, if we really work on it, we could even get BMW to put on a council rally open to everyone. Next time you see a BMW member, you might mention it.

The second event was a phone call from Chuck Fontaine of the Potomac Region of PCA. He was looking for a guest speaker for their June meeting and would I be interested in coming out and talking about rallying for their members . . . Chuck explained that they would only have several hundred of their 1,600 members present and when they put on a club members-only rally, which they did four or five times a year, that they only got forty or so cars to compete. . . Here was another hundred or so potential rallyists. Even if just a fraction of them could be interested in "real" rallies (there is that term again), the sport would be booming."

In future STOPWATCHER columns Doug plans to discuss what "non-rallyist" rallyists, such as BMW and PCA members are looking for in the sport. I have just one comment: Our past June rally will probably be used by the Washington Rally Club (of which Doug is president) as one of their "real" rallies next year.

RACE RESULTS: The third round of the MARRS series saw our locals travel out of region for two days of racing at Watkins Glen. Bob Gammache suffered fuel injections problems with his ITA class 2002tii. He finished 12th in the seven lap race and 7th in the 12 lapper. Max Rodriguez started last in the 12 lap race and powered through the entire field (setting an ITA lap record of 2:22.47) before his tii blew a rod through the block. In ITB our boys had the following finishes with their 2002s: Jim Epting 3rd and 4th, Gary Green 6th and 6th, Alan Green 12th and 11th. Apparently there are some fast Volvos and Alfas running in New York.

In the IMSA Firehawk 24 Hour race at Watkins Glen on June 10-11, there were forty three lead changes. The Ray Korman/Ron Christensen M3 led with three hours to go and looked like a sure winner but a burned up wheel bearing put an end to their run. The Sports class winner was the Yves Coleon/Steve Parker 325is that finished third overall in the Summit Point 6-Hour. At Lime Rock on July 4 the Korman M3 led the 4-Hour Firehawk GS race until overheating cause them to drop back and finish 3rd. The Coleon/Parker 325is led the 6-Hour Sports Class race until the last lap when a broken rear sway bar caused a partial spin and the BMW was passed by Terry Earwood's 4WD Eagle Talon.

On June 17-18 there was a 24-Hour race at the

Nurburgring's old 14.7 mile circuit. A field of 180 Group A and Group N (showroom stock) started the event. In addition the the normal Touring cars such as the Mercedes 190E-16V and Ford Sierra Cosworths there were Porsche 944 Turbos and AMG Mercedes 500s. Two BMW M3s finished 1st and 2nd.

AUTOCROSS RESULTS: At ALTD's round 3 of the MWCSCC series May 21 Gary Green (ITB 2002) was 1st in ESP, Cory Laws (535) was 2nd, and Tom Baruch (3.0 CS) took 1st in FSP. Leah Epting (2002) was 2nd in the Novice class. SCCA's round 4 was June 18 in Hagerstown (great lot, lousy course). Tom's Coupe was 2nd in FSP and Don Whitaker's M5 just beat out Leah in the Novice class. Bonnie Butler and I (325s), Klaus Hirtes (528i) and Gary Green (2002) all finished out of the money. We had three class winners at the Children's Hospital Benefit Autocross on May 28: Don Whitaker - 1st Novice, myself - 1st CS, Dwight Derr (528i) - 1st ESP. Tom Baruch was 2nd in class. Many other BMWs competed. Bill Gould drove his 325iC to 2nd in the Novice class at the Corvette Club of Baltimore's June 11 event. The newly formed Council of Motorsports Clubs (CMC) is staging a series of regional "championship" autocrosses around the country. Top finishers in each class are eligible for a national championship to be held at Pocono Raceway Labor Day weekend. At CMC's July 2 event at Timonium, Maryland my 325is was first in Stock B. Don Whitaker's M5 and Klaus Hirtes' 528i were 2nd and 3rd in Stock F.

M3 WATCH: Since my comments in the last issue we had two M3s at the July 1 drivers school: Richard John's from Fincastle, Va. (Tar Heel Chapter) and John Scholes's from Connecticut. Jan Nethen and friend (wife?) entered the Children's Hospital Autocross and Al Torres did well in our Championship event (his first autocross).

SPEED SHIFTS: Bob Gammache and Max Rodriguez had their 2002tiis protested by a fellow MARRS competitor. The SCCA upheld the protest over what constituted a stock piston. Bob and Max built their cars using the pistons fitted to new U. S. tiis when they were imported in the early seventies. The SCCA would only recognize the piston mentioned in a BMW NA shop manual written in 1975. BMW NA was not established when the early tiis were imported. BMW will soon import a new model - the K1. It sports

COMPETITION CORNER CALENDAR

- Sept 9** NCC Drivers School, Summit Point, WV
- Sept 10** AJSTC Petit GP Autocross, Ft. Meade, MD
- Sept 10** Gunston Hall Car Show, Lorton, VA
- Sept 10** NASCAR Winston Cup, Richmond, VA
- Sept 17** NASCAR Winston Cup, Dover, DE
- Sept 23, 24** IMSA GTO/GTU/Firehawk GS/S/T, Watkins Glen, NY
- Sept 24** CART Indy Cars, Nazareth, PA
- Sept 24** USCC Champ Autocross, College Park, MD
- Sept 30, 1** SCCA MARRS races, Summit Point, WV
- Sept 30** IMSA GTO/GTU, Lime Rock, CT
- Oct 1** Porsche Club Champ Autocross, location unknown
- Oct 8** Vintage Races, Summit Point, WV
- Oct 8** SESCO Rally, DC outer suburbs
- Oct 22** SCCA Champ Autocross, location unknown
- Oct 28, 29** SCCA Race Drivers School, Summit Point, WV
- Oct 29** WRC Rally, DC outer suburbs
- Nov 5** Saab Club Champ Autocross, location unknown
- Nov 11** Ferrari Club Drivers School, Summit Point, WV
- Nov 12** NCC-BMWCCA Drivers School, Summit Point, WV
- Nov 19** Lotus Club Champ Autocross, location unknown

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a 1,000cc in-line four with double overhead cams, 16 valves and 100 horsepower. This motorcycle is BMW's first legitimate entry in the hot sportsbike (or "crotch rocket") class. The cost is expected to be \$13,500 and only 200 examples (about one per dealer) will be brought into the U.S. in the next year. The August '89 issue of VW & PORSCHE magazine has an interesting article about two different modified U.S. M3s. The same issue has a comparison test of six compact European sedans: BMW 325i, Audi 90 Quattro, Mercedes 190 2.6, Peugeot 405 Mi16, Saab 900 and VW Jetta GLI-16V. Their testers rated the BMW most desirable if cost were no object and the VW best when cost is a factor. The Mercedes lists for almost \$10,000 more than the BMW. The TV guide in a recent Hartford COURANT listed the following: "ESPN Golf - How to Drive with Bob Bondurant". CRUNCH.



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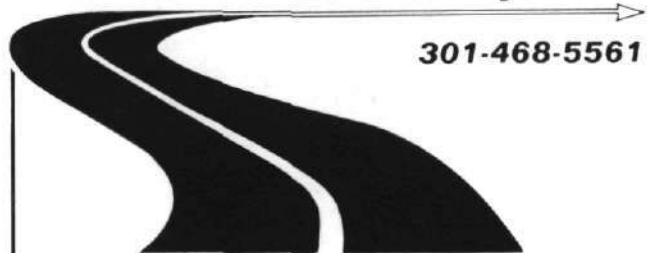
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Championship Autocross

"WORLD'S FASTEST" Wins Our Championship Autocross

The August '89 issue of GRASSROOTS MOTORSPORTS magazine proclaims George and Todd Bowland's supercharged VW powered LeGrand formula car to be the world's fastest autocross car. It sports a wing that is almost as big as the car. At the National Capital Chapter's MWCSCC Championship Autocross on July 23 the father-son duo duked it out for Fastest Time of the Day honors. It took the third run by each to settle it and son Todd prevailed with a 35.368 to George's 35.737. No one else was within four seconds of Todd's time.

A field of 64 cars (25% of them BMWs) and at least 26 club members who acted as workers suffered through 100 degree plus temperatures in downtown Baltimore. That's right - while the Orioles were on the road Dwight Derr arranged for us to use the large south parking lot at Memorial Stadium. Since this was a D. C. Council event being held more than 30 miles from the White House we also had to receive their express waiver. Picture neighbors spectating while leaning on their backyard fence. We also entertained a large portion of a church congregation.

The mid-summer date and last-minute acquisition of the lot may have kept some of the regulars away but they missed one of the better events of the season. Officer of the Day Tom Baruch laid out a course that favored neither power nor nimble handling. Some dips and rises in inappropriate locations did play havoc with some suspension set-ups however. A number of cars were lifting their inside front wheel while bouncing through one decreasing radius sweeper.

In addition to the Bowlands' winged wonder there were several unusual entries. A Porsche 928 took second in the A Stock class and 1990 models of the Nissan 300ZX and Mazda Miata competed in the Novice and Ladies Class respectfully.

Stewart Street's immaculate 535is was not placed in the D-Street Prepared class because of his last name but the oversized aftermarket wheels. Being the sole entry in class, Stewart picked up 12 quick points towards the season championship. Leo Balzereit brought his beautiful red and silver 2002ti down from York, Pa. and took the E-SP title for the third year in a row. His best time of 41.342 was also good for the Fastest Prepared Time of the Day title. I am glad he

didn't decide to enter his 325is. Gary Green and Jim Epting normally battle at Summit Point, Watkins Glen, and Charlotte Motor Speedway with their Improved Touring 2002s race cars. Today it was for second place in E-SP. Gary had run several autocrosses already this year, but I don't think Jim has done any autocrossing for several years. Gary prevailed by .345 seconds. Cory Laws could only manage a fourth in class with his "535". Maybe it was the pressure of having his dad watch. Tom Baruch took time out from his supervisory duties to take the F-SP class in his 1973 3.0 CS.

As I approached the starting line for my third run I knew I only needed to improve by six-thousandths of a second to move past Al Slaughter who had the C-Stock class lead in a Chevy Z24. My effort was only rewarded with a re-run due to a timer malfunction (thanks alot Mark). The re-run exceeded my expectations by six-tenths. Just one problem - a pylon was sent flying during the 43.646 run resulting in a two second penalty. Deja-vu. This was the second year in a row this has happened to me at our event. Roy Melloni drew the biggest cheers of the day for his full-throttle, opposite-lock, two hundred foot slides through the decreasing radius sweeper. Somehow he managed to do it all three runs without spinning or hitting a pylon with his 325is. Klaus Hirtes was third in the D-S class with his 528i.

Seven BMW owners choose to run in the Novice class where their times would be indexed according to the class their car would normally run. Don Whitaker (M5) and Leah Epting (Dad's 2002) have been running nip-and-tuck all season in these two dis-similar Bimmers. Today was no exception as Don eeked-out a win with an indexed time of 38.147 to Leah's 38.159. Their raw times were almost as close.

There are about four more championship autocrosses left on the schedule this fall. Come on out and enter, or at least cheer for the BMWs that are running.

This autocross was very labor intensive. Tom had alot of help from a crew of workers recruited by Raine Mantysalo. Some put in six hours of work on a very hot, humid day. Among the registrars, tech inspectors, timers, scorers, announcers, course marshalls were the following: Sue Baruch, Sylvia Harrison, Sunny Caton, Gary Toyama, Sharon and Jon Miller, Klaus Hirtes, Debbie Greene, Dwight Derr, Raine Mantysalo, John Hartge, Roy Melloni, Mike Early, Erik Klasons, Larry Park, Leah Epting, Woody Hair, Don Whitaker, Chris Leeper, Kay Heatherley, Larry Matsen, John Kenworthy, Lynn and Mark Yaworski, Fred Fernald, Jim Epting and

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Championship Autocross

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Gary Green. My apologies to any I missed. In particular I want to mention John Kenworthy. John just transferred to this area and called a Club member to find out what the National Capital Chapter did. Told

about the upcoming autocross, John called Raine to volunteer as a worker, also ended up entering his beautiful 528i, and after gridding cars all afternoon, drove back to Northern Virginia so he could go to work. We need more members like that.

Woody Hair

BMW RESULTS

Leo Balzereit	2002ti	1st ESP	41.342
Gary Green	2002	2nd ESP	42.875
Jim Epting	2002	3rd ESP	43.220
Tom Baruch	3.0 CS	1st FSP	44.123
Woody Hair	325is	2nd CS	44.256
Don Whitaker	M5	1st Novice	44.491
Leah Epting	2002	2nd Novice	44.552
Cory Laws	535i	4th ESP	45.129
Roy Melloni	325is	5th CS	45.220
George Milonogiannis	2002	Novice	46.054
Al Torres	M3	Novice	46.429
John Hartge	M5	7th CS	46.630
Stewart Street	535is	1st DSP	47.265
Bill Gould	325iC	Novice	47.375
Mike Early	2002tii	Novice	48.136
John Kenworthy	528i	Novice	50.206

Note that the Novice Class indexes for finishing positions have only been figured for Don and Leah.

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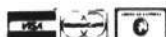


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OKTOBERFEST

Rocky Mountain Style

Nine members of the National Capital Chapter and their children traveled 1,800 miles west to attend Oktoberfest at the Rocky Mountain resort of Keystone. In all, about 500 enthusiasts from all over the USA and Canada took part in this intensive four day celebration of driving, showing and talking BMWs. Keystone is set in a narrow valley on the west side of Loveland Pass, about 75 miles from Denver. The 9,300 ft. elevation at the resort had quite an effect on car performance. One notice on the registration area bulletin board sought help in locating about 65 hp lost from a 325i. As if the Oktoberfest itself did not offer enough activities to keep one busy 13 hours a day, the area recreation opportunities included golf, tennis, sailing, fly fishing, horseback riding, kayaking, and back country Jeep tours.

After a Sunday evening welcoming party, things got started in earnest at 5:45 am Monday morning. That was the departure time for a caravan of six-cylinder models going to the drivers school at Second Creek Raceway. This is a tight 1.7 mile road course located in the rural northeast corner of Denver. When I say tight I am talking second and third gear only! Four run groups of 20 cars each got four 20 minute sessions on the track. One of the sessions included braking and accident avoidance exercises into each lap. Two classroom sessions were also given: one on how to drive safely and one on how to drive fast. Bridgestone Tires sponsored the event and had their large semi-trailer truck present for air, service, etc. Among the instructors, who came from all parts of the country, was our own Glen Stewart who was combining the O'fest school with a business trip to Boulder.

At the same time, the four cylinder cars were having their autocross at the base of Keystone's River Run gondola. B. F. Goodrich sponsored this event and had their large truck on hand for service, advice and Comp T/A sales. Due to the lack of a suitable parking lot, the course used two parallel access roads. These narrow roads had sandy shoulders, rock-strewn ditches, and were lined with a forest of sturdy pine trees. The organizers were lucky there was only one mishap - an M3 bent a wheel when it went into a ditch. Totally stock cars were classed as either Stock, Prepared or Modified according to their theoretical performance. Certain modifications moved the cars up one or two classifications. For example, all M models

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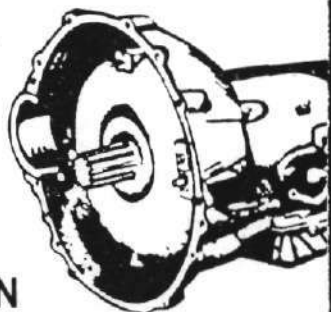
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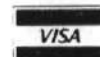
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Oktoberfest

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and all European models were considered "Modified".

Adjacent to the autocross course was a small parking lot where the gymkhana was run at the same time. These low-key events can take many forms and in this case the driver had to negotiate a tight course that included backing into a "garage". This was made more difficult by the presence of a beach ball in a large, but shallow, hood-mounted bowl. Meanwhile the passenger was responsible for starting the timer before getting in the car, picking up and later replacing tennis balls from several traffic cones, retrieving the beach ball if necessary, and then getting out of the car to stop the timer at the finish line. The time for the best of two runs was combined with the time for one run without the beach ball. Everyone used the same car - a 325i convertible supplied by Ralph Schomp BMW of Denver. It was a fun time with lots of laughs. For the second Oktoberfest in a row, Blue Ridge (Charlottesville) chapter president Byron McCauley and SueAnn Meskell had the second best time out of over 100 entrants. Meanwhile, some Concours entrants were already busy washing their cars.

Monday evening there was a reception hosted by Korman Autoworks and Red Line Lubricants. Ray's timing could not have been better since he had just arrived from Portland, Oregon where his M3 won its first Firehawk race of the season. (The car arrived Tuesday and was parked in the lakeside plaza the rest of the week.) Kathleen Kimpel won a case of Red Line Oil as a door prize.

Tuesday the four cylinder cars went to Second Creek while the sixes autocrossed and/or gymkhanaed. Official results are not available but I think fastest time for the two days was set by Russell Wiles of South Dakota in his stock (Prepared 6 Class) 325is. At least the top five cars in the Prepared 6 class were stock 325is's, all wearing Yokohama A008Rs. Dan Tackett of California won the Modified 6 class with a 535i.

Other on-going events for the less competitive included a 160 mile do-it-yourself "Eagle Eye" fun rally and a mini-autocross using radio controlled cars. This was popular with both kids and adults. A number of suggested auto tours were provided for O'fest participants. Drives to Aspen, Rocky Mountain National Park and to the top of 14,110 ft. Pikes Peak were very popular. Many vendors and tire companies had display booths set up and BMW NA was showing theater released movies (that just happened to have



John Hartge's M5



Woody Hair at Second Creek Raceway

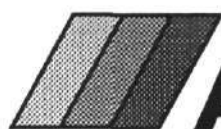
Photos by Brian Hair

BMW's in them). A lot of the concours entrants were still busy washing their cars, but the resultant rain that evening didn't dampen anyone's spirits at the Goodyear reception.

Wednesday morning saw over 100 cars start the Passport sponsored TSD rally. There were 7 1/2 pages of General Instructions to be digested compared to last year's 1 1/2 page, but everyone managed to find their way to the finish. The route took us through Vail and over several high passes near Leadville, the old mining town where we were allowed a 40 minute lunch break. National Capital members Mario and Cecelia Messina, and Fred and Nancy Yane-Fernald were honorable mention finishers in their class. John Hartge and I started well with errors of 5 seconds and 3 seconds on the first two legs. Then, not believing we should be continuing to creep at 13 mph after leaving the remote village of Red Cliff, we picked up the pace and soon came into a checkpoint 1 minute, 27 seconds early. The hour and a half long fourth leg was better - we had an 8 second penalty. On the fifth and final leg we made a wrong turn in Frisco, missed a maze of

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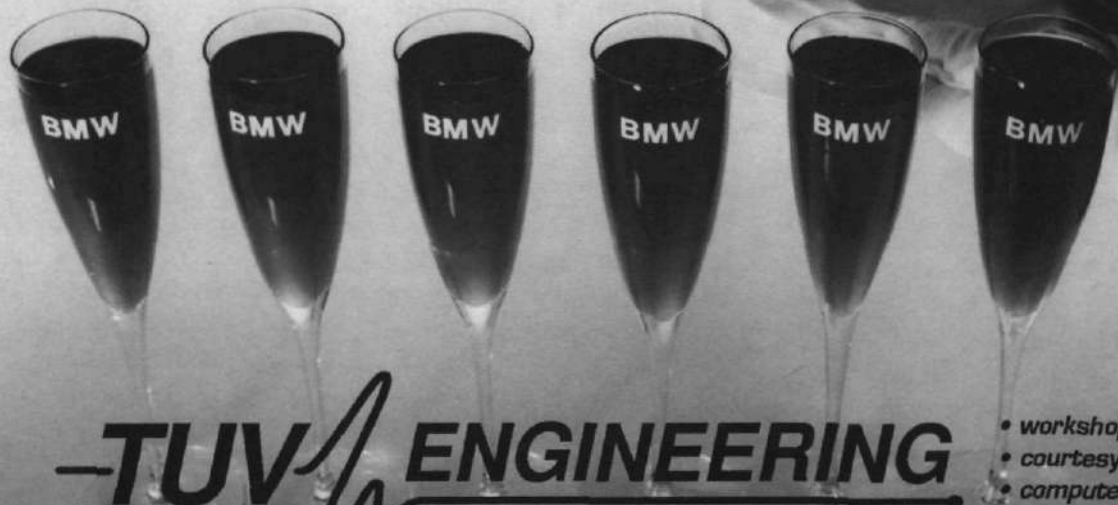
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turns that used several "Main Road" and "Protection" rules and ended up at the checkpoint over 5 minutes early. Back at Keystone, afternoon activities included a trivia quiz sponsored by BMW NA, and more radio controlled autocrossing. Entries in the photo and miniature car display contests were judged. Concours entrants were busy cleaning their cars - particularly the few that had entered them in the driving events.

That evening everyone but some car washers rode the 1 3/4 mile long gondola to the top of Keystone mountain (11,640 ft) for a barbeque dinner and dancing courtesy of Yokohama. Gordon Kimpel won a Bell helmet as a door prize. The view of the surrounding peaks and the distant Lake Dillon was spectacular.

Thursday morning John Hartge was up at 7:00 am for a group photo of the five M5s in attendance. The weather was perfect as the concours entrants lined up their cars in a nearby field by 8:30 am. While the lab-coated judges went over the cars with white gloves and Q-tips, everyone was able to form their own opinions for the "Peoples Choice" vote. The music of a live classical string quartet added to the atmosphere. The cars entered included a 328, 507, two Isettas, 1600 GT, an M1, and a winged 3.0 CSL. There were several rare '02s: two cabriolets, two Tourings, and a factory Turbo. I believe the best of show was a 2002 with 8,900 miles.

All week BMW NA had provided a fleet of cars for 1/2 hour test drives. At 8:00 am every day a line formed to sign up for the M3. Other models were more readily available and included a 735i, 535i, 525i, and two 325i's, a four door and convertible. The mandatory test route took you to the top of the Continental Divide at Loveland Pass (11,990 ft.). One of the highlights of O'fest for me was my unimpeded run in the red M3 Wednesday afternoon. Thursday Ray Korman arranged to use the M3 (his race car is not registered or muffled) after the last official test drive ended at 4:30. He asked me and my son Brian to go along and videotape the run. Around 4:00 we got word that the M3 was badly crunched on the next to last test drive of the week. Thankfully the driver (if he can be called that) and passenger were unhurt. It was quite a testimony for the energy-absorbing deformation of the 3 series. Ray quickly arranged to use the white M3 that belonged to the Ralph Schomp dealership. That ride was a thrill too, but not as good as driving it yourself.



NCC Contingent at Keystone

Some of the National Capital Chapter members who attended Oktoberfest are pictured here at the Pirelli Banquet, (from left to right) Gordon Kimpel, John Hartge, Kathleen Kimpel, Isetta, Fred Fernald, Woody Hair and Nancy Yane-Fernald.

Photo by Marv Jensen

The Oktoberfest activities concluded Thursday evening with the Pirelli Banquet for the 500 adult participants. Various annual awards and trophies for the competitive events were presented. The trophies were the work of a local Sculptor and depicted a 507 at speed - quite impressive! The raffle drawing for eight 535i's was also held. Jeff Lutes, president of the Buckeye Chapter that will be hosting Oktoberfest next year, was the only winner in attendance. With approximately 17,000 entries, someone yelled, "Fix!".

The amount of volunteer work that goes on at one of these Oktoberfests is really mind-boggling. Rocky Mountain chapter president Jim Nelson instructed in the classroom at Second Creek on Monday (he races a Sports Renault), was autocross starter for 400 some runs on Tuesday, conducted the rally seminar Tuesday evening, started the rally and worked a checkpoint Wednesday and was master of ceremonies at the banquet Thursday evening. The chapter's O'fest coordinators probably did more work and that's not mentioning the behind the scenes work that their chapter members did for more than the past year. Sure, there were some glitches, but Rocky Mountain chapter can be real proud of this event.

Plan on attending next year's Oktoberfest July 15 to 20 in Columbus, Ohio.

Woody Hair



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CARS FOR SALE

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'77 320i Mild suspension and engine mods; 12K on engine and oversize HD clutch; allows, MOMO wheel; vented rotors; a/c; no body rot; orig. paint, needs repainting; overall VG cond.; about \$900 recent mechanical work; \$2,750; please ask only for Alfred (not about car), (202)245-2976 wkdays, (202)966-1752 home.

PARTS FOR SALE

(4) Michelin TRX **wheels and tires** (200/60 VR 390) removed from '87 535is. New, never used. \$900. Call Louis (301)652-5993 work, (301)926-1413 home.

Parts: 1988 325i transmission \$600 (5 speed); drive-shaft \$200; 325e engine \$1,300; differential \$200. Call Craig (703)450-9175.

Parts: Auto trans. ZF3HP22 w/67K, fits most 3,5,6 & 7 series \$650; front springs, new OE for 3.0 CS, 530i or 528i \$100 pair; 320i front brake calipers w/20K miles \$125; 320i Neuspeed stressbar \$60. Overbudget on Coupe resoration. Call Mike (301)527-0055.

Parts: 320i right front fender, new and used flywheels, right grill, 4 and 5 speed guibos. Parting out '71 2002, you want it, I probably got it. New 2002 tie rod ends, center track rod, brake shoes. Help me save my basement. Mark (301)972-8237 eves.

WANTED

BMW Sports Seats: 2 for 3-series, tan vinyl. Need to replace kitchen chairs in '89 325i. Call Ben (703)370-2235 eves.

More photos! Of Club events or fun Bimmer shots, for publication in *der Bayerische*. Write your name and the event (with date) on the back and send them to *der Bayerische*, c/o Bumper Crop Studios, 6939 33rd Street, NW, Washington, DC 20015.

Membership Application



Send To:

BMW CAR CLUB OF AMERICA, INC.
345 Harvard Street, Cambridge, MA 02138

Name _____ Spouse _____

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City _____ State _____ Zip _____

Home Telephone _____ Business Telephone _____

BMW Model _____ Year _____ Serial No. _____

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Your check made payable to **BMW CCA**
 must accompany this application.

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Please send this portion of the form and your old
 mailing label to National at the address above.

NAME _____

NEW ADDRESS _____

CITY _____ STATE _____ ZIP _____

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Radial Tire	Kay Heatherley
Quality Car	*
Kraftwagen	Cory Laws
Kirsten Motor Werkes	Jonathan Jones

* We still need liaisons for these shops, folks. So sign up and join
 the membership race! Call Gordon Kimpel at (703) 847-9660 days
 or 527-3234 in the evenings if you would like to offer your support.

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