

**BMW ACA**  
**Boyet Sound Region**

# Zündfolge

**April 1992**



**Bellevue BMW**  
**On April 22nd**

**More on the New**  
**3-Series Coupe**

**Autocross School**  
**On May 16th**

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Cover: The 2002 factory turbo, circa 1974.

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April 1992

# Inhalt

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**BMW ACA events are partially supported by a generous grant from BMW of North America, Inc.**

# Activities Calendar

## Autocross 101

Autocross is a timed event on a course defined by cones. Usually there is a practice run and two runs that count. The fastest time wins. How do you learn the techniques needed to be successful? An autocross school of course. The opportunity to learn these skills will take place on May 16 and 17. On Saturday, May 16, the day will be divided into two sessions. The first will be a classroom session. You will be taught about oversteer, understeer and all that other car term stuff. The second session will find you in your car driving a course practicing what was taught in the classroom. The second day will be a continued practice of things taught on Saturday.

If you are worried about damaging your car, don't be. Because speeds are not high, there should be no excess stress on the car. The exceptions are tires and brake pads that will see a bit of extra wear.

So make sure your car is in good working order and your tires have at least 36 psi of air, because there will be an inspection. If you do not have a helmet, there will be some available. If you have one bring it. The cost of the two days is only \$12. Such a bargain.

Please plan to join us on May 16 at 8:30 in the west parking lot of the Boeing Kent Space Center. Directions: take exit 152 off I-5 - southbound - make sure you take Orillia Rd. Follow Orillia Rd. down the hill and take a left at the first stop light. Turn left into the first parking area. Afterward we will all drive to the north end of the lot.

For those wishing to continue we will be co-hosting a practice with the Mustang Club on June 7. Since this is a practice it will be low keyed. So mark your calendar to join us for our first two autocross events of the year.

-Michael Thompson

April 22

**General Meeting at Bellevue BMW.** The topic is European Delivery. Don't miss our first meeting at Bellevue in years. This is on *Wednesday* at 7:30 p.m. Be there.

May 7

**Board Meeting** at Tom Cox's home. See page 10 for phone number and address.

May 16

**Autocross School.** Learn the fine art of autocrossing. See Michael Thompson's article for more details.

May 17

**Autocross** at Boeing Kent Space Center. Try what you learned the day before. WWSCC hot line is 255-0658 to check on any changes.

June 7

**Autocross** co-sponsored by us and the Mustang Club. Our re-entry into WWSCC.

June 13

**Wine Tour** of Western Washington, led by Tom Williams.

July 1

**Wednesday Nighter at SIR.**

July 11

**Concours d'Elegance.** Location to be announced (no more Ste. Michelle!). Note date change from July 12th.

July 18

**Track Day at PIR** hosted by the Portland chapter, but we're invited.

August 17

**Track Day at SIR.** Our first ever Monday, all day. Prior experience required. Drive till you drop!

October 18

**High Performance Driving School.** Accept no substitutes; this is the real thing.

## Upcoming SIR Events

The club's track season at Seattle International Raceway will kick off July 1 with a Wednesday Nighter and a full day at the track Monday, August 17.

The Wednesday Nighter will be run the same as in years past. You'll need to have your log book signed off to level one or if you've attended a club school we'll have instructors available to ride with you to continue your training. It's possible to get your level one sign-off at any track event if you've attended at least one of the club's schools. We'll run from 4 p.m. till dusk.

Our next event will be Monday, August 17. There's a great reason to take a day from work and enjoy a summer's day at the track. The agenda for the day hasn't been finalized yet but may include an informal school in the morning. Anyway, you'll be guaranteed all the track time you could want. Here's another opportunity to increase your experience, from novice to level one or from level one to level two. Prior school experience is required. We'll be offering discounts for pre-registration. Watch in future issues for more info.

See you track side.

- Gary Parr



# General Meeting at Bellevue BMW

by Andy Kubelbeck

The April general meeting will be held at Bellevue BMW on Wednesday, April 22, 1992 at 7:30 p.m. This promises to be a very informative and entertaining event especially for those considering the purchase of a new BMW.

You may have noticed that Bellevue BMW hasn't participated in club activities in the past few years. According to sales manager Steve Woody, this is going to change, and to get the point across, Steve has scheduled a multimedia slide show focusing on European delivery of a new BMW direct from the factory. A complete information packet will be available for the excellent program BMW has set up for European delivery.

In addition to the slide show, Steve has arranged to have travel agents present to help with travel plans. Complimentary refreshments will be available and the parts department will be open with special pricing. This sounds like a good opportunity to take a vacation and get a break on a beautiful new BMW straight from the factory.

## BMWNA Focus

You may have seen the recent TV commercials showing a new 325i being put through its paces during a BMW driving school. Is this an emphasis on the part of BMW to return to its roots by prompting what its cars are all about? Steve Woody thinks so. Instead of building a high volume, boring "people mover", BMW is focusing on cars that are "entertainment systems for highway". Steve said that BMW will strive for cars that give a sense of driver participation while maintaining a level of exclusivity. He mentions that competition, both foreign and domestic has been good for BMW, pressuring them to be more responsive to the customers wants and needs. One way of obtaining more customer satisfaction and feedback is the structuring of its management by having only three people between the customer and the BMWNA president Karl Gerlinger.

## Bellevue BMW Focus

The management at Bellevue BMW is re-focusing for the future by more aggressively pursuing customers and raising the level of customer satisfaction. According to Steve Woody, to achieve long term success, "We are determined to treat everyone with respect and make them feel comfortable, with a professional and knowledgeable sales staff."

Another goal is improved and faster service with extended service hours until midnight on Mondays through Thursdays.

## The New Coupe

Don't forget, this will be an excellent opportunity to view the new 325i coupe, so mark your calendars and we'll see you there!



## Wine Tour To Feature Local Wineries

This year's wine tour will take place on Saturday, June 13. We plan to visit several local wineries in and around Seattle, beginning with Cascade Estates near the UW. The plan is to meet there informally between 10:30-11:00 a.m. We'll do some tasting, then head across the lake to the Snoqualmie Winery. A lunch stop or picnic (weather permitting) will break up the day, before we travel to the Columbia Winery in Woodinville. Time permitting, we'll stop at French Creek Winery (also in Woodinville) before we head north to Snohomish County to sample the award-winning Cabernet Sauvignon at the Quilceda Creek Winery.

More information will follow next month. In the interim, please contact Tom Williams at 283-1056 if you have any questions about the tour.



BMW Sales Manager Steve Woody welcomes the club back to Bellevue BMW.

# Stalls

by Thomas B. Nast

## Plane Thinking

What's higher tech than building 24 valve BMWs? Powering jetliners, of course. So how could I pass up Bill Proud's invitation to the Boeing Propulsion Systems' open house last fall?

The Propulsion Systems' propelling work is to design and assemble accessories and mounting systems to core jet engines. This includes pumps, alternators, the starter, a bleed air heat exchanger, and so forth, as well as cowling, thrust reversers and the "strut." The strut is not a dance designed by Herr Proud for the enrichment of chiropractors; rather, it attaches the engine to the wing and carries the associated wiring, hoses and ducts. There are all kinds of issues you wouldn't intuitively think about, such as maintaining a ground plane (0 volts) across composite parts and designing mounts which can transfer 60,000+ pounds of thrust but which will shear and drop the engine if vibration exceeds a safe level, to name but two. Bill can tell you more about struts, a lot more, if you are interested.

But perhaps the most interesting clue to what is transpiring is on the hundreds of NEC 5D monitors which litter the 777 engineering department. On those monitors one can view a program called CATIA, a joint effort of Boeing, IBM and Dassault (of Mirage and Falcon fame). CATIA, which runs on about nine interconnected mainframes, allows the drawing of any part, system or assembly, and allows the drawing to be layered. Take the (already drawn) core engine, push a button and the (previously drawn) hydraulic components are added. Push another and add the gearbox. Push another, and you strip off the bleed air systems. And so forth. This sort of thing has been developing for a while elsewhere, but the speed and depth of ability is remarkable. The plan is to direct the output to machine tools, to fabricate the parts so designed. Most remarkable was the "stereo lithography." Using



a container of plastic primordial soup and two lasers, any part (within size limits, of course) designed on CATIA can be made in a three dimensional model of rigid plastic. I was shown a rather complex multi-part valve made this way. With some cleaning up, these parts of it could easily be the basis for a casting mold.

Automobile manufacturers have been trying to implement similar schemes. That is why GM bought EDS some years ago, for way too much money. I do not know how far along the Japanese are, but would be interested in knowing (I suspect pretty far along). Once the systems are in place and debugged, it is obviously cheaper to change designs on a computer than by building prototypes. And you skip an entire layer of cost and delay by downloading the design, in digits, to the production machinery. But another reason to integrate design and production of both airplanes and cars is that, an awful lot of the design work on both is driven by regulation.

Cars, of course, have to meet certain DOT and EPA requirements, some of which have been pretty stupid. For example, the DOT required sealed beam headlights (still does, but at least now they can be halogens) while allowing Ford to use the Pinto's gas tank to do double duty as a bumper. But des-

pite all the bitching from the industry, the cars keep getting more efficient, better handling, faster and safer, and look a hell of a lot better than they did twenty years ago (mostly). We will never have cars that look "classic" again, like a 328 BMW or XKE Jag, not to mention Hispano Suizas and the like, but with Miatas and 500SLs and NSXs and such, the regulations clearly allow enough latitude to make products that are interesting as well as functional.

General aviation is a bit different. Airliners excepted, I don't think there has been a new airplane certified in this country since about 1983, and that (Piper Malibu) was the first one in quite a few years. Engine technology (again, airliners excepted) was frozen in about 1948 (no, I'm not exaggerating). The only thing interesting going on is in kit planes, which are not certified. The cost of certification is simply so great that it cannot be absorbed by the numbers produced; meanwhile, the cost of the planes produced is so high that they cannot be sold in numbers sufficient to pay for new certifications. This is the conundrum Detroit threatens us with every time new regulations are adopted, but unlike the automotive industry, it really came to pass in general aviation. Which leads me to the thought, what would cars look like if a FAA analogue, such as the "Federal Automobile Administration," certified them (assuming any got built at all)?

I think they would look like cars from GM. The Chevy Caprice comes to mind [accompanied by the sound of dinner rising]. The first time I saw this car I wanted to call the Coast Guard and have it hauled back into the ocean. It is, optimistically, a 1970's car with a body drawn by a committee. ("How can we make this car look different from a Taurus?") It looks as bad in the metal as it did in the ads after two bottles of wine. Mostly it seems that just fleet buyers, namely rental chains

and the police, own them; I have seen very few in the hands of taxpaying citizens.

A few days ago, I had the misfortune of briefly tailing a new Eldorado. This is the car which the business pages tell us is going to save the Cadillac Division. From the back, it certainly catches the eye, like a left hook, but not quite so pleasingly. It looks like Brezhnev's face after too much Vodka, with those big bushy eyebrows trying to intimidate you. From the front (I had to pass this thing before it damaged my vision) it looks like a Buick. And underneath the clothes lurks the same old emperor. Why innovate, when you already meet all the regulations? It just invites delay, expense, recalls and lawsuits.

Well, one reason is that if you stand still, everyone passes you. In GM's case, a 1.5 billion dollar (and rising) loss second quarter is a result. I think the innovators (Porsche excepted, which like light plane builders, has too much development cost spread over too few products) are doing at least a little better, despite the recalls and lawsuits, but they don't have the FAA to make their lives miserable. But Boeing is innovating, more in how it makes its product than what that product is. I wonder what the world would be like if Boeing had a car division? I wonder what aviation would be like if Honda or Toyota built planes?



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There is a lot of confusion when it comes to new-car warranties. There's an important difference between the repair of defects and the act of service. Service includes such routine maintenance as oil changes, tuneups and brake jobs.

Many car owners are afraid that they'll void their new-car warranty if the car isn't serviced by the car dealership. That's not true. According to the federal Magnuson-Moss Warranty Act, you can have your car serviced by any competent independent service station, shop or garage and still maintain your warranty.

All you have to do to keep your warranty in force is have the car serviced at the intervals specified in your owners manual or warranty booklet, and keep careful records. Read all the fine print about service requirements. Note that the carmaker's definition of "severe service" (which requires more frequent oil and filter changes) may be what you consider normal driving.

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## More on the New 3-Series Coupe

by David Lightfoot

Last month we featured an article on the new 3-series coupe by Jim Tulk. Jim is the editor of the *Whispering Bomb*, the Los Angeles chapter's answer to *Zündfolge*. Lucky Jim attended the new car introduction in Malaga, Spain. This month we will go into a bit more detail on some select aspects of the new 3-series coupe.

### Special Features

Because the trunk lid opens so far, almost flush against the rear window, a special grab handle is fitted to ease closing the trunk. It is finished in body color paint. The rear seats of the coupe fold down to allow through-loading from the trunk. Great for skis. The rear seats are split so that either side or both can be lowered. This feature is available as an option on the four-door.

The quarter light windows of the 325i coupe swing out, as in previous models. What's new is that the windows are electrically operated!

The ASC+T (Automatic Stability Control plus Traction) will be available on the smallest bimmer for the first time. An optional roof rack system has

been designed. The rack follows the curvature of roof. The tensioning rods are fitted to the support beams, allowing up to 165 pounds to be carried.

### Passive Safety

As with all BMWs, this new 3er meets and exceeds all safety standards set by the government. But BMW takes safety further. Let's start with passenger restraint. Belt latch tensioners on the front seat belts tighten the lap and shoulder belts in case of a frontal collision. Special sensors respond when a certain deceleration level is reached. The belts themselves have adjustable anchor points on the B-pillars. This helps insure optimum belt geometry to prevent two rear seat occupants from hitting one another during a crash.

The seats themselves are well bolstered and "ramped-up" at the front. This raised front helps prevent "submarining" under the belts in a severe frontal collision. Rear seats are sculpted into buckets to better hold the occupants. A driver-side airbag is standard.

Minor collisions up to 2½ mph are absorbed by the bumpers. Impact tubes take the damage up to 9 mph with the car's structure remaining unharmed. Above 9 mph the car's crumple zones spread the impact throughout the exterior to minimize the forces the occupants must "ride down."

The new 3-series is even designed to minimize the amount of injuries a pedestrian or cyclist might suffer upon impact. The entire front of the car is smooth and the lights are integrated into the body. Side mirrors tilt back easily.

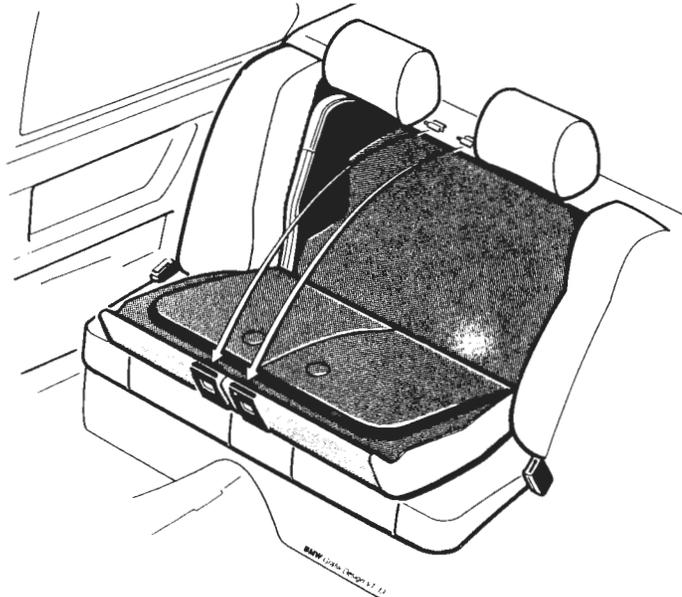
### Active Safety

Besides passive safety, BMWs have always meant active safety. Something the safety Nazi's in this country can't comprehend. First, to achieve active safety, one must start with excellent handling and responsiveness. As last month's *Zündfolge* reported, the rear 3 provides this in ample portions. Weight distribution is 50/50. The new rear axle design, first used on the Z1, provides sports car handling with less of the familiar trailing throttle oversteer. In other words, the new car is very forgiving.

Slim pillars mean excellent outward visibility. Ellipsoid headlights provide better illumination with less scatter. The ergonomically designed cockpit means controls are easy to reach and driver fatigue is minimized. This is important in reducing driver error.

### Engines

Both the four cylinder in the 318i and the six cylinder of the 325i feature four-valve per cylinder technology. To enhance torque at all levels and increase top end power, the engines feature BMW's Individual Control Intake System (ICIS). The concept uses the pulse charge principle. Gas columns flowing through the reservoir or pipe are drawn in periodically to generate an oscillation motion. For further



## President's Out Box

by Paul Touby

refinement this oscillating system is carefully tuned to improve the cylinder charge. This is achieved by varying the effective length of the intake manifold runners as a function of engine speed via a butterfly valve in the intake system.

To make optimum use of the fuel injected, cylinder-selective knock control is used. That is, ignition timing can be altered to specific cylinders based on what the knock sensors are reporting to the engine management computer.

The six cylinder engine, the now familiar M50 motor, uses a plastic intake manifold with very smooth interior surfaces. Valve clearance is automatically adjusted by hydraulically compensating tappets. The camshaft and its drive system are maintenance-free. The ignition system is fully encapsulated and features spark plugs with triangular electrodes. Although not maintenance-free, the plugs should have a very long life.

### Want One?

If you want to buy one of these marvels, and a lot of club members will, the dealers have a few of the cars in stock. Although not supposed to be available until this month, they started trickling in in early March. Most of the early cars are sold but you can take a look and place your order.

When I became president of the club, I made a promise to myself that I would do as little as possible in normal club operations. So far that has been an easy promise to keep. However, I decided instead that I would concentrate on special projects to help promote club membership and event participation by club members. To that end I have been working on a number of projects. A couple have already been tossed in the file for future reference, while others are still in the planning stage. However, a couple of my pet projects are about to see the light of day.

Number one on my list was to reestablish a working relationship with Bellevue BMW. And as you have read in the previous newsletter this has been accomplished. Bellevue BMW will be host to a club meeting on April 22. My meeting with the dealer's sales manager, Steve Woody, was very positive with a number of proposals exchanged that would be of benefit to both the club membership and the dealership. Discussions on those proposals will continue, with hopefully an announcement or two at the April 22nd meeting.

I would at this time like to take the

opportunity to thank Bill Bauer for all his help in getting the club and the dealership together. Also, thanks to David Lightfoot for his help.

Number two on my wish list was to get the club involved in autocrossing again. The club used to be very active in autocrossing in past years. But due to a number of circumstances, club participation in autocrossing events fell by the wayside. Last year I made a feeble attempt to again make autocrossing a major club activity. The one good thing that came out of that is that it lit the fires in enough members to continue on this year with a stepped up program.

Our Autocross Chairman, Michael Thompson, has gotten the club back in the Western Washington Sportscar Council (otherwise known as WWSCC) and has set up a schedule of events that our club will participate in. One of those events will be co-sponsored by our club and the Mustang club. The first event will be the SCCA Autocross school. I urge all former club autocrossers to come on down and help get the new seasons off to a rousing start. It's only \$12 for the whole weekend! (See Michael's article for full details.) For those of you that have never tried autocrossing, I particularly urge you to come and give it a try. Autocrossing is like the roller coaster at the fair. Watching from a distance it doesn't seem all that exciting, but when you're along for the ride it's a whole different story. So come on out to the Autocross school, you'll be thrilled, I promise.



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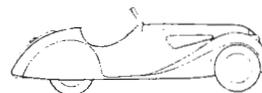
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## BMW Engineers Work Station

Computers are changing our working environment, and BMW is a company on the leading edge. Computer aided techniques have been embraced by BMW at every level of the work force. Computer aided techniques are especially important for the company's many engineers.

The new BMW research and engineering center, known by the German initials FIZ, was set up to offer the ideal conditions for integration and communication that BMW sees as essential for high tech research. More than 5,000 people work on research and development at the FIZ. BMW sees the engineer's work station of the future being governed by integration. They mean integration in the most comprehensive sense, with a combination of human beings, organization, and technical resources contributing to the complete system. As a result of increasing complexity, communication between specialist areas has become an important element in the research and development process. Thus the FIZ has been laid out to accommodate all the specialists' departments and encourage their interaction. Each technical department is equipped with the latest computer aids and an efficient central information system.

BMW employs what is known as computer integrated manufacturing, which refers to the company's integration of the entire product development and manufacturing process. The various areas within computer integrated manufacturing include computer aided styling, computer aided engineering, computer aided design (CAD), computer aided manufacturing (CAM), computer aided robotics, and computer aided quality assurance.

Computer aided styling will enable designers of future models to shape complete vehicles with the aid of computerized graphic systems. A visualization of a component can be produced

in three dimensions with the proper perspective, and with every visual detail including color, reflections and light. These computer aided styling systems are being linked to CAM techniques so that the design and preparation process can become more cost effective and quicker.

Computer aided engineering is used to check all of the design calculations at every stage of development work. This is done by computer aided analysis and optimizing, and by simulating component performance and behavior, either in isolation or in conjunction with other components. Computer aided engineering includes crash analysis, analysis of vibration, noise and strength, and even advance determination of interior noise level. Computations are made using the finite element method. Another useful area for computer aided engineering is aerodynamics. Computers make calculations based on the laws of flow mechanics, and with the aid of complex differential equations. Data are obtained from the computer on pressure distribution, air flow friction, and flow velocities. After processing, this yields a full picture of the aerodynamics on the body surface. Finite element method analyses also are being introduced in the production area. For example, to determine the flow pattern of thermoplastics during injection molding. Tool design can be optimized to avoid temperature drop zones. Computer aided engineering is also used to analyze the dynamic movements of the automobile in motion, so that improvements can be designed in at an early stage.

BMW uses a Cray supercomputer to handle the immense volume of data which occurs during this type of calculation. Input is first processed on separate computers before being fed into the Cray. The Cray then produces high performance graphic workstation out-

put, which can be recorded on video equipment.

BMW currently has a system of 700 CAD workstations which are networked to a linked series of large mainframe computers. Design work at the CAD workstations is gradually replacing the traditional drawing board design methods. For example, the 3-series introduced in 1984 only had a small number of outer panels designed using CAD techniques. The newly introduced 3-series had all of its exterior panels designed using CAD.

Computer aided manufacturing takes the CAD data and applies it to production. For example in tool making and machining of components.

BMW currently operates about 1,100 industrial robots in its production and assembly areas. Previously the robots were moved manually to the desired operating position, which was then memorized for the robots' control systems. However, for the last three years BMW has used computer aided robotic programs to simulate and optimize robot movements on a graphic computer screen. When the simulation is complete, the resulting programs are used to program the robots' control systems.

The final use of computers in the manufacturing process is quality control. Computer controlled measuring apparatus has now superseded almost all manual component checking. The computer checks the final shapes and tolerances from the production line, then compares this information with the nominal data stored as a CAD model.

All computer aided techniques are regarded by BMW as tools, and subject to continuous development. By the same token, the company's employees are constantly undergoing follow-up training and knowledge updates, so that they can operate this sophisticated equipment.

— David Lightfoot

## The Secrets of Detailing Revealed

Some 40 club members as well as assorted family and friends attended a session on automobile detailing at *Details, Details*, in Bellevue. The hospitality suite wasn't bad, either: cold cuts, pasta and potato salads, cold drinks. First class.

Doug's presentation focused on the proper use and method of application of various chemicals used in the detailing process. There were several overall themes:

- get a professional detail once a year.
- use as little of a chemical as possible.
- work from the weakest to the strongest chemical.
- don't scrub any surface; if you have to rub hard, you need to go to the next compound.
- use the right tool for the job.

Doug uses products by Auto-Glym (England) and One Grand (VanNuys, CA) in the shop, and said that these are

available for retail sale at the shop.

Doug also passed along some observations that he has gained through his experience in the detailing trade:

*Car washes:* Avoid those using brushes. If you use a pressure washer, don't use it very close to the paint.

*Paint sealants:* Avoid like the plague. They don't let the paint breathe.

*Armorall:* Don't use, as it *harms* plastic, like other silicon products. Use petroleum-based ones instead.

Some of the techniques demonstrated surprised many of those present. Steel wool (00 or finer) to get rid of water spots on exterior glass surfaces (not on mirrors, though). And applying wax on top of the polish *before* buffing out the former.

As for the future of D.I.Y. detailing, Doug offered the sobering observation that increasing public concern with water quality could lead to a permanent ban on home car washing within 5 years.

The Club thanks Doug and his wife Nancy for taking the time to share some of the techniques of professional detailing with us, not to mention (again) the wonderful lunch they served. Doug emphasized that he is happy to answer car care questions - give him a call at the shop at 746-1976.

*Details, Details* will be offering a 10% discount on services and supplies to club members. Just show your membership card. *Details, Details* is located at 13500 Bel-Red Road in Bellevue.



*Details, Details* owner Doug Garvey demonstrates on an M3 to an attentive group of club members.

DETAILS  
DETAILS

A thank you  
to those who  
participated in our  
March 28 seminar.  
We look forward  
to serving BMW club  
members.

- Doug and Nancy Garvey

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## Classified Marketplace

**For Sale:** BMW 320i Parts; 5 BBS alloys, complete air conditioning unit including console, 2 Michelin 185 70R 13s (75%), alternator, 4spd tranny, and many other engine parts (77-79). I am also parting out a complete 320i body (77-83). Everything goes so let me know what you need. Also a Kenwood KRC-2001 high powered AM/FM cassette deck. Call anytime between 9 a.m.-7 p.m. seven days a week. Please leave your name and number and the parts you need and I will get in touch as soon as possible. Keith 1 (206) 935-3892.

**For Sale:** 1980 BMW 745i turbo. Mint condition, 4 door, automatic, sapphire blue, 2-way sunroof. New tires and factory alloy wheels. Four way stereo, ABS, 235 hp, 80 K miles. Asking \$9,500 OBO. Rick Santos 885-2376 / 345-1413.

**For Sale:** 1970 2800 CS, 45,000 mi. on total restoration, wht. w/red leather, PS, PB, PW, 3.0-L. eng., Webers, dual point, w/compuensor ign., new steering & Korman comp. susp., ltd. slip, 5-sp., Soundstream stereo, alarm, much more, \$13,000 OBO, 206-697-1529.

**For Sale:** 1972 2002, AT, sunroof, 200,000+ miles, body 99% straight. 206-833-5055 after 8 p.m.

**Classified Advertising Policy:** Classified ads are free to members in good standing (paid up dues). There is a \$5 fee to non-members. Photo classifieds are \$15 to members, \$20 to non-members. Ads will be run for two consecutive months, space permitting. *Zündfolge* staff reserves the right to edit all classified ads. Ads must be typed or neatly printed and sent to BMW ACA; P.O. Box 1259; Bellevue, WA 98009; Attn: Classified ads. Make checks payable to BMW ACA.

**For Sale:** 4 - 16" wheels for 5 or 6-series BMW, DP5 five spoke pattern, excellent condition. New cost over \$800, buy these at \$450, Denny Organ. 228-2539.

**For Sale:** 1984 Dodge GLH Omni, low mileage, only driven on Sundays. O.K., so it was a former showroom stock race car. This would make a fun car for the high school student that wants something with a little zip and Omni insurance rates, \$1,200 or best offer. Call for details, Denny Organ. 228-2539.

**For Sale:** 318i Getrag 5-speed transmission. All new parts. \$800 OBO. Installation available. Call Greg at 833-8161/872-0085.

**For Sale:** Concours winner: red/tan 1976 2002, 4-sp, 137 K, Webers, KYB shocks, sports suspension pkg., \$11,000 in new equipment, paint, stereo, parts, alarm. Beautiful clean car. \$6000, June 526-0465 eves or message.

**For Sale:** 1976 2002 gray, 150,000 mi. by 2nd owner since 1980. Good running condition, 1969 2002 runs well, 1969 1602 runs well, 1969 2002 parts car, lots of extra parts. Call Tim 780-5411.

**For Sale:** 1977 530i, one owner, all records, low miles, no wrecks, 4sp, mags, air, roof, no head problems, excellent mechanicals and interior, exterior needs paint. R BARON personalized plates. \$2950, 467-6606 days, 745-9624 eves.

**For Sale:** 1972 2002 Touring. Very rare fastback. Dual Webers, 318i wheels, Fittipaldi steering wheel, factory sunroof. Mechanically strong, needs paint. \$5000. David or Lucetta 282-2641.

**For Sale:** 1987 BMW 325is, Delphin/Black, orig. owner, 5 spd, LSD, A/C, sunroof w/dflctr, remote digital alarm (user adj.), Repecos, ABS, Susp. Tech w/Bilsteins, front and rear stress bars, 15" Motorsport (MD-11) wheels w/205/50 VR15 A008RS, 23.5k freeway, no commute miles. \$18,000. Bob, day 619-560-8534.

**Wanted:** Owner's manual for 1983 320i. Call collect 509-246-0744 Marion.

**For Sale:** Four silver BBS wheels with serviceable 195 70VR14 Continental tires - fits 5, 6, 7-series - track or snow tire wheels. \$300. 323i coil springs - \$35. 323i steering wheel - \$25. Dusty 627-7639.

**For Sale:** Old Iron-oxide has too much stuff! Five speeds, motors, diffs, distributors, some sheet metal, 320i spoilers, carbs, manifolds, right hand mirrors, wiper motors, wheels/tires to fit everything. Contacts in Germany will find *anything* (legal!). Bill Proud. 206-824-8242 eves.

**For Sale:** Four factory steel wheels, size 6Jx14, and 1 new factory original 4-spoke steering wheel, fits 5, 6 and 7-series. New set Bosch foglamps. Price . . . any reasonable offer. Call 778-6514, eves or message.

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BMW Motorsport announced a third team to contest the '92 German Touring Car Championship. Replacing Team Linder will be the BMW Motorsport R&D team. The factory team will be made up of young engineers and experienced mechanics. Driver will be Johnny Cecotto. (*Roundel*)

The parent company of Rolls-Royce has rejected a takeover bid by BMW. Rolls officials admit that they'd be happy to form some kind of cooperation with another car company, but deny the company is officially for sale. Chairman Sir David Plastow adds, "unless we received an astonishingly good offer." (*Car & Driver*)

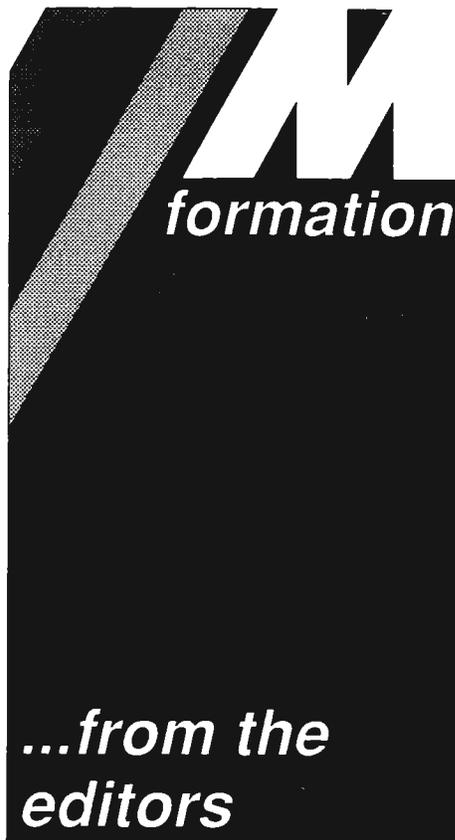
BMW's 5.0 liter V-12 will be getting a higher compression ratio, pushing power to 315 hp. (*Automobile*)

The BMW 3-series was chosen Japan's inaugural Import Car of the Year. The Mercedes S-class came in second. (*Autoweek*)

Two M5s placed first and second in the luxury class, and sixth and eighth overall in the 2600 mile One Lap of America Rally. (*Roundel*)

BMW has spent \$4.5 million to purchase half-interest in Designworks/USA, a design consultant based in Newbury Park, Calif. (*Autoweek*)

Wolfgang Reitzle, head of BMW research and development, has been pegged by many as the next chairman. Recently, however, he has fallen from favor somewhat. His pet project, the 850i, isn't selling. Then there were embarrassing quality problems with the early E-36 3-series sedans. Reitzle has cut back on business trips so that he can spend more time tending to business. (*Roundel*)



U.S. dealers were treated to a preview of the new 525i Touring (wagon) in March in Los Angeles. The group was impressed with the handsome car. It should be available very soon.

Would you believe an M2? BMW will use its 3-series at the platform for a product to take on Volkswagen's Golf VR6.

Wolfgang Reitzle, BMW's chief of research and development, said the new bimmer will have a redesigned body and specialized drivetrain.

BMW indicated the car's engine will produce about 175hp, but would give no timetable for its introduction into the marketplace.

A BMW-badged hatchback reportedly has been seen testing in the Phoenix area. (*Autoweek*)

BMW announced a pilot program to study recycling all BMWs in this country when they reach the end of their useful lives. Such a program is already underway in Germany. The U.S. effort is in conjunction with the Automotive Dismantlers and Recyclers Association (ADRA) and will involve ADRA members in three cities. During the pilot phase, BMW will give owners who bring their cars to an authorized center a certificate worth \$500 on the purchase of a new BMW or BMW-approved used car. (*Autoweek*)

Mark Kent, 35, of Boston, was killed when his BMW M3 flipped over a 12 foot high fence at Sebring International Raceway during practice for a support race for the 12 Hours of Sebring. (*Seattle Times*)

## 2 for 1 Sale

BMW products have a universal appeal, for lovers of engineering and motor sports, as well as luxury. This, coupled with today's low rates being offered by BMW, have resulted in a landslide of new customers buying the new models from Munich. This fact was recently illustrated by a purchase made by Bill Buckingham, owner of Buckingham BMW Motorcycles at Greenlake in Seattle.

Bill has been a successful dealer for a number of years now, and his daughter Gina works with him, selling BMW Motorcycles. Bill wanted a new car, but like any lover of good engineering, decided to look at the whole market. He was impressed with Mercedes-Benz in fact. However, after taking a close look at a few examples from BMW Seattle, he finally decided on two cars. He found he could lease a 735i for himself and a 525i for Gina for the same lease payments as the one Benz. That pretty much says it all, doesn't it!

Bill and Gina are happy with the new BMWs, and believe that the cars serve as ample testimony to their belief in BMW engineering.

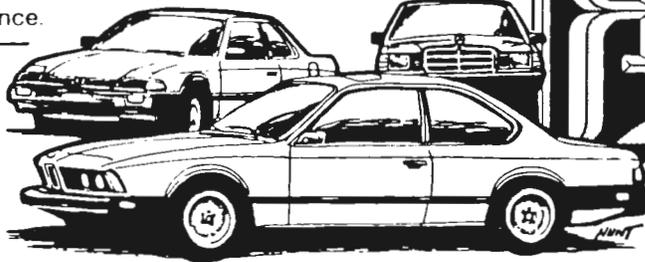
We have noticed a growing trend among BMW owners to be interested in not only the automobiles, but motorcycles. Anyone who has not seen the new BMW bikes lately is in for a surprise. Bill and Gina would love to give you a guided tour of their store.

— Rick Arendt

(Editors note: Rick is a salesman at BMW Seattle.)

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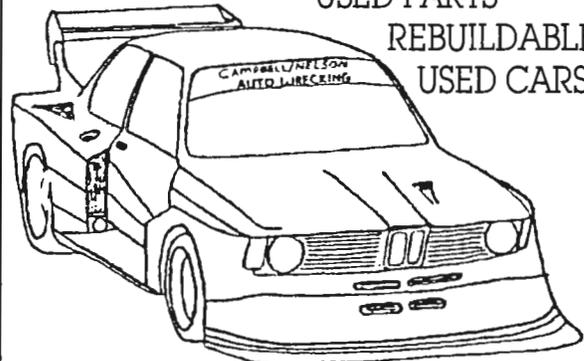
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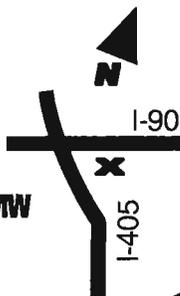
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