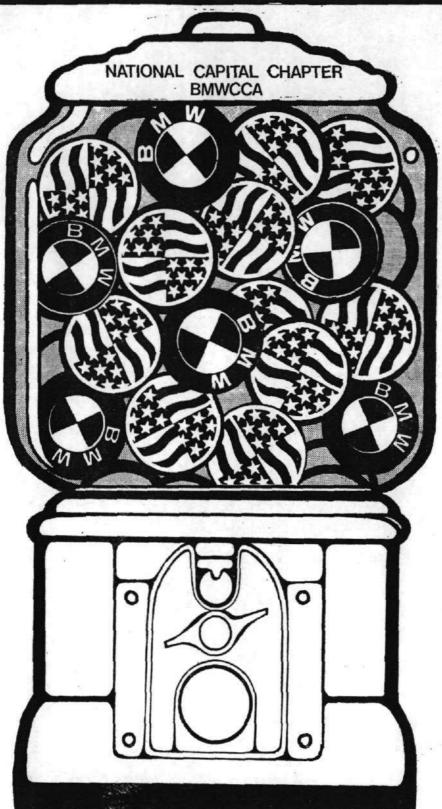
der baverische

VOL. 7 NO. 9

NOVEMBER 1977



Editor's Notebook

A National Capital Chapter member from Charlottesville writes: "Can you please send me some information on local chapters that I would be able to join? I would like very much to be a member of a local chapter and to participate in its activities."

Well, there are no local chapters in Charlottesville. But his question brings up a good point that applies as well to our many members in Baltimore, Annapolis and other relatively distant places.

The purpose of our organization is to offer knowledge and aid to other members so we can all become better car owners -- and to have fun besides. We all pay the same dues. Yet our Baltimore and Charlottesville contingents, because of the distance they'd have to travel, have less opportunity to take advantage of chapter activities.

I discussed the aforementioned member's letcer with Ken Wright, our chapter president, and he agrees there's no reason why members in the more distant areas shouldn't be able to organize their own events, as long as they don't compete with regular chapter activities. Events could include their own regular meetings, tech sessions and occasional get-togethers with the "parent" chapter.

If anyone in those areas is interested in forming a sub-chapter, send in a notice to the newsletter including your address or phone number or some way you can be reached by others in your area. We'll print it if you want, or pass it along to someone who lives near you. Or, when someone calls you for the upcoming chapter census, mention that you'd like to be put in touch with others in your area.

Meanwhile, of course, any member is free to

suggest club activities and help out with some of the work! Or nominate yourself as a club officer or committee chair. All chapter positions, including newsletter editor, become vacant in January and will be filled at our January 17 chapter meeting.

President's Message

Try to visualize what driving an automobile will be like in two or three generations. A race of mentally deficient mutations will rule the public roads, their AM radios blaring and their arms flailing spastically as they careen ecstatically and bounce harmlessly off each others' little plastic cars, and grunting unintelligibly in their mindless frenzy. By that time, highways will be unfit places for actual travel, because unreason had defeated reason back in the 1970's. Because at that time, the holy crusaders in the government announced to the people: "We will put balloons in your cars so you won't harm yourselves; now, you be nice little morons and don't drive too fast or we'll make you pay us Real Money."

Not that the government has been given much choice in the matter. The citizenry is shocked by the death rate on the highways, but

Letter to the Editor

To the editor:

In reference to the letter to the editor appearing in the September, 1977 issue of <u>der bayerische</u> (vol. 7, #7):

Subsequent to the publication of the aforementioned letter, certain events have taken place which merit further discussion. To jog your see page 8

der bayerische

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Editor: Jane Touzalin (703)527-2694 home (703)750-2000 work

Advertising: Barry Livingston (703)569-0413

Graphics: Vicki Livingston (703)569-0413

CHAPTER OFFICERS

President: Ken Wright (703)560-6224 Vice President: Fred Weinberg (301)654-2138 Secretary: Jerry Hoopert (301)948-8368 Treasurer: Conway Wilson

COMMITTEE CHAIRMEN

Autocross: Bob Hoey (301)948-8368 Council: Dave Roach (301)593-1875 Membership: Estelle Torpy (301)933-4997 Promotions: Jerry Hoopert (301)948-8368 Racing: Chet Kingsbury (301)464-1946 Storekeeper: Bill Riblett (301)652-9013 Technical: Paul Broyles (301)459-2081

tech tips - paul broyles

rrrrr click buzzzzzzzzz.

Want To Start Something? Know Your Battery

PLACE: M.R.S. Anybody's driveway
CONDITIONS: Cold -- 15°; cloudy and still dark
WIND: 20 mph, gusting southeast
OBECTIVE: Reach work destination on time and
safely
GCENE: After 10 minutes of chipping ice from
around the driver's door and freeing the door
lock M.R.S. Anybody inserts key into ignition
and turns it, only to hear the engine go rrrrr

Not sure that the nose had been held right, M.R.S. Anybody cycles the key and another at-

Happy Holiday Season

As is traditional at the end of the year, <u>der</u> bayerische will not be published in December so its editor and contributors can relax and enjoy life until the holiday onslaught.

The next issue will reach you in early January. Until then <u>der bayerische</u> wishes you a good Thanksgiving, happy Chanukah and merry Christmas.



It's Party Time Again!

December's chapter activity will be a holiday party, replacing the monthly meeting. Everyone's invited to Chet Kingsbury's for a good time at a low price.

The date is Saturday, Dec. 17 at 8 p.m., the place is 4008 William Lane, Bowie, Md., the cost is \$2.50 per person and the program is ...unpredictable. Chet has revealed two surprises in store for attendees: Chestercito's Wombat Chili and lethal Tombstone Punch.

The \$2.50 will cover beer, munchies and setups (bring your own booze). To help Chet know how many people to expect, please call if you plan to attend: 464-1946 (home) or 261-0090 (office).

Remember, it's the last event of the club year and a good chance to fortify yourself with good cheer in the midst of trying to buy those presents.

tempt at starting is made. No luck. Strange -- the battery had been working fine. There was no warning -- or was there?

We all know the rest of the story: tow truck with a hot shot, the phone call to a friend for a ride or a double trip for somebody. Then the phone call to your mechanic or parts store.

Now suppose that, after proper testing and checking, it's determined that your old or nolonger-functioning battery needs to be replaced. (It's hard to say how long a battery will last; it depends upon conditions.) Beginning with a good type of battery, follow manufacturer's instructions for initial servicing and firmly mount the battery in the car. Inspect and service battery cables and clamps and you're ready to go. Simple -- or is it?

Just what battery are you supposed to buy? And how come? There are all kinds of batteries to choose from, or so it seems.

Let's go back a minute. Remember how your battery would run out of water or the terminals and clamps would become corroded? Remember the battery box area where the paint peeled off or rust and corrosion set in? It was all caused by battery gassing.

What is battery gassing? Let's take a brief look at how a battery works. First, its construction.

Batteries contain a positive and a negative see page 13

Veteran Club Formed

Bayerische Motoren Werke has announced the formation of a BMW Veteran Club in Germany. The new club has the sponsorship and sanction of the BMW factory. All cars prior to the BMW 1500 are considered veterans and the club was formed to help the owners of such vehicles keep their cars running.

The authorized clubs in the United States are:

BMW Isetta Club P.O. Box 90 Topanga, Ca. 90290

BMW 507 Owners Club Hilltown Pike Hilltown, Pa. 18927

BMW 700 Register 1733 Falstone Ave. Hacienda Heights, Ca. 91745

The address of the International Veteran Club:

BMW-Veteranen-Club Deutschland e.V. 8500 Nurnberg West Germany

Write to any of these groups to get membership information.

The 320i Controversy: Déjà Vu and the 2002

It seems like I've been caught up in this whole thing before. Like in the late '50s and early '60s when Volvo introduced the model 122 to replace its popular and successful model 544. Rave reviews and great expectations whetted the appetites of dedicated Volve enthusiasts everywhere as they rejoiced at the

by jim ryland

prospect of an "improved" Volvo. Then, as the higher-priced 122 with its technical improvements and added luxury became a fact of life on U.S. roads, the realization slowly but surely hit home that the old 544 was one hell of a good car and even a better deal for the money. What followed for some was disappointment, feelings of betrayal and, ultimately, polarization of Volvo owners into quietly hostile model camps. Sound familiar yet?

The 122 was, in fact, a great car, but it marked a change in corporate philosophy and auto technology that could not help but eventually alienate the small, avid groups which helped Volvo establish its reputation and which found the 544 to be one of the most enjoyable cars ever — compact, sturdy, nimble, different and fun fun to drive. And what a personality! There was the underdash chain we pulled to lower the curtain over the radiator for a quick warm-up. And that wonderfully smooth transmission with the long shift lever.

Well, the 544 is gone and so is the 122. Those who extolled the virtues of those models are no longer hostile. In fact, they don't care who buys a new Volvo or why anymore, but chalk up the demise of their favorite model to the same fate which claimed brass beds, classy bathing tubs and clear air -- progress. But that doesn't stop them from continuing to enjoy their cars as they appreciate in value.

We BMW owners are now experiencing a similar turn of events, yet we have one advantage that Volvo owners did not: an active national owners' association. While the interests and disappointments of 544 and 122 owners remained for the most part private ones, we can voice our reactions through our local chapters and through BMWCCA.

The thing that bothers me is that some in BMWCCA seem determined to establish an official position for or against the switch to the 320i. Outside of the healthy and unavoidable comparisons, it seems to me that any energy spent overly criticizing either of these fine cars or their owners is wasted -- especially

Free Classified Ad

FOR SALE: 1972 Porsche 911T. Need an exotic, sportier car to go with your BMW? Car is sepia brown with a tan interior and has all "S" equipment including front spoiler, alloy wheels, sway bars, instruments and trim, five speeds, Behr A/C, AM/FM stereo. All original, 41K miles, looks good, has no rust, runs well. Asking \$6,700. Bill Riblett, (301)652-9013 evenings (Bethesda).

because we have nothing to gain and a great deal to lose in terms of the unity of our association and its membership.

Think about it. Do you know of any car cwners' association which offers as much as BMWCCA and the club chapter? I place a high value on the information and the exchange of views offered in the Roundel and in der bayerische; it makes BMW ownership even more rewarding. As much as possible, let's avoid surrendering the pages of our publications to "model politics." I'd much rather indulge myself with a Paul Broyles technical treatise or enjoy a Dave Roach article on rallying.

In light of the mutual appreciation for BMW automobiles, I move that we welcome the 320i as a full partner. Be honest -- wouldn't you really like to have one of each in the driveway?

Need Company for Club Events? You Could Use a 'Bimmer Buddy'

Do you ever pass up club activities because you don't have a friend, date or spouse who's interested in attending with you -- and you don't want to go alone? Would you like to attend a rally or tour, but need someone else to sit in the front seat as a navigator, driver or just plain company?

Our chapter is now looking into the idea of starting a system of "Bimmer Buddies," a roster of people who are available as rally companions and for other events. Chapter member Vicki Livingston is pursuing the idea and you can find out more about it by calling her at 569-0413.



This Is a Recording

Try Using Tapes When Performing Bimmer Surgery

There's a certain trick used by some professionals who routinely perform rather delicate operations -- notably surgeons and bomb disposal experts -- to ensure that each step in their procedure is preserved for posterity if (perish the thought!) they commit a fatal booboo. The trick is to read a description of each step in the operation into a tape record-

EMISSIONS

We tried, but couldn't persuade former chapter president ESTELLE TORPY, now membership chairman, to have her baby before this newsletter went to press. So because there's no December newsletter we're offering early congratulations Sympathies to a chapter member whose identity will not be revealed -- Mr. X was on his way to Summit Point a few weeks ago when he trashed his tii. Don't send flowers, just money Meanwhile, BOB HOEY and JERRY HOOPERT recently traveled to Summit Point for the Bill Scott Solo I school. They got in about two hours of high-speed (100-105 mph) driving The rumor is that Skoda USA is preparing an SCCA race car for next season. It'll be driven by CHET KINGSBURY, our host for the chapter holiday party next month.

er while they are doing it.

There's no reason why you can't do the same thing while you're performing surgery on your favorite four-wheeler. Use any available cassette or reel-to-reel tape recorder to note each step in the removal and/or dis-assembly of the component(s) you're working on.

Include in your description: position of the part before removal; type/size/location of fasteners (e.g., "four hex-head bolts, top two short, bottom two long"); any gaskets, lockwashers, O-rings, their sequence and the tool used (e.g., "10 mm socket"). Later, during reassembly, you can play back the tape to make sure the whole thing goes back in exactly the way it came out -- i.e., without any left-over parts!

Paul Hoecke Southern California Chapter

Replacement Boots for BMWs

Datsun part #39655.21002 halfshaft boot for the Datsun 610 is a perfect replacement for the BMW boot. The quality of material is at least equal, if not superior, and the price is approximately one-third the BMW price. Remember to buy four boots for your BMW as the Datsun uses only two.

Palm Tree Chapter newsletter



PAUL BROYLES -- DICK SCHIAVONE

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Turbocharging Your BMW: One Man's Experience

At least one National Capital Chapter member is now working on turbocharging his car. Until he's ready to give a final report on his experience, here's a reprint from a BMWACA newsletter on one man's turbocharging experience:

I am the owner and developer of a turbocharged 2002. With two years and 30,000 miles behind me I've been asked to share my experiences



with others interested in turbocharging their BMWs. It is so complex I hardly know where to begin.

A turbocharger is a small compressor driven by exhaust gases that will, upon demand, force the fresh air-fuel mixture into the engine under pressure. There is a growing interest in turbocharging as it can double horsepower without significantly affecting economy, emissions, driveability, longevity or durability, provided the installation and tuning are done correctly.

"Wait a minute," you ask, "You mean I can't just bolt it on and amaze my friends?" That's right. Unless you are prepared to spend more time on your engine than the pistons-cam-andcarb approach, then turbocharging is not for



you. In fact, a turbo with only one moving part affects every system in the engine! If you're looking for a bit more horsepower and economy, get yourself a set of TI pistons and maybe a carb or two. But if you have a kamikaze personality, plenty of spare time, \$1,000 play money, a spare 2002 and a garage loaded with tools begging for a big project to justify their existence, then let's get started.

But first, a few precautions. Don't turbo a tii as the injection pump can't tell the difference between natural and compressed air. Don't turbo an automatic as it has trouble hauling down to the next higher gear under boost. Don't turbo a car you can't do without for a month or two. Finally, don't do anything until you've read several times Turbochargers by Hugh MacInnes from H.P. Books.

My turbo is a 377B flow Rayjay with a .7 exhaust housing purchased from Pacific Diesel in Seattle. Its center is mounted slightly below the valve cover gasket line and just ahead of the shock tower. It's fed by a two-inch SU carburetor borrowed from a Jaguar 6. The air fuel mixture leaving the compressor travels over the valve cover and six inches straight down to the stock intake manifold (one barrel). After combustion the exhaust gases are collected in a homemade manifold, built with one-eighth-inch wall steel, and fed up into the exhaust turbine. After the turbine it's down and aft to the muffler. This system starts producing boost at 3000 rpm with a maximum of 17 pounds at 5500 rpm.

Seems simple enough, doesn't it? So how does the turbo affect so many systems in the car?

Let's start where it all begins, in the combustion chamber under boost. For any given compression ratio (c/r) there is a limit to



the amount of boost pressure an engine will accept before pre-ignition or detonation occurs. My BMW with 8.5-to-1 c/r would detonate at 9 psi boost without water injection to cool things down, and at 13 psi with injection. After I dropped the c/r to 8 to 1, the limits went up to 15 psi.,

Now my c/r is 7.2 to 1 and the limits are up to 18 psi under certain conditions. I dropped the c/r by removing a small amount of metal from the combustion chamber squish band areas. As the chamber size increases, it takes more boost pressure to fill the chamber to critical limits at any given engine speed. Think of my engine as displacing 121 cu. in., and yet the combustion chambers are the same size and develop the same pressures as those of a highcompression V-8 displacing more than 400 cu.



in. That's where all the power and torque come from.

Turbo Trauma: How One Man Turbocharged His 2002

from page 6
But with that power come pressure and heat.
The turbo thrives on pressure and heat, but everything else suffers. The valve seats should be wide for good heat transfer, and new valve springs will assure good contact. Check out those rockers and shafts while everything is apart, and don't miss the chance to have the head boiled to speed up cooling of the combustion chambers. A new set of rings will boost compression and help transfer heat away from the pistons. Also have the rotating parts balanced if you want it to stay together. Replace the cam chain if it's sloppy. We're talking about a lot more horsepower, so do it right the first time, not the second or

third time like I did! That reminds me of those four innocent-looking little bolts that hold the cam gear in place. Don't let their size fool you -- new keepers and Locktite are in order here.

Now we come to the infamous BMW head gasket. The head heats up and cools down faster than the block, aluminum being what it is, so there is much movement between the head and the block which this extra-thick gasket is supposed to accommodate without leakage. It has been my experience that, in time, the gasket bonds to both surfaces, forcing the core of the gasket to do all the shifting.

see page 8





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Turbo Trauma: How To Turbocharge Your Bimmer

I coat my head gasket heavily on both sides with a product I use on my Cat called Anti-Seize and Sealing Compound, packaged by Cat. Then I coat the head bolts and torque the head down to 60 ft.lbs. Excessive torque is both unnecessary and undesirable. The gasket never bonds at all and is free to shift as required without leakage. Subsequent removal of the head reveals an undamaged gasket. In fact, the gasket in my turbo is on its third time around and I suspect I may never have to buy another one, which suits me fine as I'm using the expensive tii gasket with the hard rings around each combustion chamber. These rings dig into the soft aluminum head, effectively O-ringing against movement under extreme pressure. I highly recommend this gasket even if you aren't going to turbocharge your BMW. As for the sealing compound, both of my BMWs and a neighbor's Bavaria are doing fine, not to mention my Cat!

Well, where do we go from here? Heat. Oh, yes, I'm not done with heat yet. The turbine wheel and housing are cherry red under boost conditions. A great deal of this heat is transferred to the engine oil which is piped from the oil pressure sender tap through an armored, aircraft-quality brake line to the turbo bearing housing. The hot, foaming, spent oil is carried via a half-inch hose to the front of the pan and dropped above the oil level within. I'm sure an oil cooler would be a good investment, especially in warmer climates.

Earlier I mentioned that I use water injection. Actually it's 70/30 water and methanol, the latter being used to prevent carburetor icing and to provide a little more oomph. The system I use is quite simple and very necessary during boost in excess of 10psi. As out-

Upcoming Activities

here is the schedule of club events over the next few months:

NOVEMBER--Meeting at Diamond Head restaurant on the 15th, 8 p.m., 6900 Wisconsin Ave.

DECEMBER--Holiday party instead of a meeting; see article, page x..

JANUARY--Chapter elections meeting at the Diamond Head on Jan. 17, 8 p.m.



Jim Atwell

SALES REPRESENTATIVE

HEISHMAN BMW, INC. 3154 JEFFERSON DAVIS HIGHWAY ARLINGTON, VA 22202

684-8500

side air is compressed by the turbo, the temperature of the air feed to the intake side of the engine can rise to as high as 300 degrees. How long would any engine last belting out about 2 hp per cubic inch going flat-out on a 300-degree day? My water injection system consists of an ordinary windshield washer pump, a gallon reservoir, a Hobbs pressure switch set at 5 psi mounted on the intake manifold and a spray nozzle in the air cleaner aimed down the throat of the carburetor. The water is converted to steam before it reaches see page 11

Letter to the Editor

from page 2 collective memories, that letter enumerated certain difficulties that arose relative to a business transaction between myself and the firm of Karzundparts, Greensboro, N.C.

Very briefly, I ordered their Weber carburetor conversion setup for my very early 1972 2002. As I indicated in the letter, three problems were experienced: slowness on the part of the vendor in filling the order, incompleteness of the delivered package and poor fit of the induction system (i.e., the intake manifold is so tall that neither the air cleaners nor the velocity stacks furnished with the kit will clear the brake booster in an early '72).

I'm pleased to report that the vendor has made an attempt to correct these deficiencies. An adjustment is being made to my order to compensate for the missing hardware (which, incidentally, was fabricated for me by Paul Broyles when I was in a pinch). The syntax of their Roundel ad will be clarified. Finally, now that the brake booster problem is understood, future conversion kits will utilize stacks and filters which fit. Based upon their genuine interest in my problems and assuming the validity of the above, I believe I can endorse the product and the firm.

Always be specific when ordering any equipment, and be sure to check the completeness of the equipment before you begin the installation. Had I received all the components I should have, the installation would have been "bolt-on" as advertised. We have their assurance that this problem will not recur.

In all fairness, I must point out that the carburetor jetting (which is a non-trivial matter) was done by the vendor according to my expectations. If you want economical operation, ask for it. If you want a hot-dog setting, then get what I ordered. You can always do a rejetting later. Even with rich settings I get smooth throttle (no flat spots or peakiness) and reliable starting/good idle. From a performance standpoint, the carb conversion is very worthwhile even without internal engine mods, as in my case. Used with a good-quality header, the Webers make the cylinder head breathe well. Cut them loose in second gear and you are gone.

A recommendation for fine-tuning the system: Skoda USA. Plenty of experience over there, and the results speak for themselves.



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BRAKE HYD. KITS BRAKE HYD. CYL.

BRAKE FLUID

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BULBS CABLES

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Tech Session for Beginners Teaches Basic BMW Facts

Those of you who did not attend the beginners' tech session at Skoda on Oct. 22 missed an enjoyable and worthwhile event. The dozen or so EMW owners (and one potential owner) who attended saw Paul Broyles and Dick Schiavone present us with a well-organized and informative program, as well as a generous supply of refreshments.

The program was simple and to the point, yet it had something of value to offer everyone in attendance -- even the technically knowledgeable.

Beginning with the interior of the car (a 2002 tii was used as our subject), Paul and Dick in turn provided detailed information on the function, maintenance, trouble-shooting and even minor repair of the interior parts and controls.

After perusal of the trunk compartment with discussion of its structure, contents and maintenance requirements, the group was given a few tips and pointers on care of exterior paint and trim parts, with emphasis on rust protection and with a brief review of the pros and con of silicone treatment for rubber moldings and weatherstripping.

Moving to the engine compartment, we were given an orientation to its layout. Each item under the hood was identified and associated with a particular function, and everything was explained in logical, easy-to-understand terms.

The final portion of the session was a review and discussion of the owners' manual and its role in vehicle maintenance and trouble-shooting.

Throughout the session, there were many oppor-

tunities to ask questions and everyone got involved.

The three hours or so passed quickly, interrupted only by occasional trips to the refreshment stand. Everyone left knowing more
about their BMWs: how to prevent things from
joing wrong, what to do when something does go
wrong and how to handle many problems under
emergency situations. The enthusiasm of our
hosts and Chet Kingsbury's great BMW wall murals made the session that much enjoyable. The
next one will be after the holidays. Don't
miss it!

Jim Ryland



Now where's that !%£!\$&! HOOD LATCH!?

Are you familiar with all of the following facts? Those who attended the beginners' tech session learned these items, among others:

* Don't try to reset your trip-meter while the see page 12

Next oil change, consider

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With your engine in good condition, gas mileage may be increased by 8 to 10%! Plus oil consumption is reduced by as much as 50%!

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CHEMLUBE 10W - 40 exceeds the warranty requirements of all car manufacturers and is guaranteed to give greater satisfaction to the car owner than any other motor oil available today truly making it a New Generation Lubricant!

Turbo Trauma: How One Man Turbocharged His BMW

from page 8 the engine, effectively cooling and packing the cylinders still farther, resulting in even more power.

What other changes did I find necessary? Have you ever accelerated so hard that the oil pump ran dry? A baffle in the pan fixed that. Also, the timing weights were lightened to hold off advance to 3500 rpm, and the vacuum advance line is connected to the intake manifold. The high chamber pressures are difficult to fire and a CDI ignition system is a must. I'm using NGK B7EV plugs gapped at .025 inches, Accel silicone wires and super coil powered by a light sensor pointless ignition system. As for the drive train, I've changed nothing except for a heavy-duty clutch. My exhaust system uses two-inch diameter pipes, from the turbo on back, with 12 inches of stainless steel flex pipe by the transmission

Washer Motor Replacement

A new replacement for your 2002 windshield washer motor costs a small fortune, like everything else electrical on your BMW. And, like everything else electrical on your BMW, there is a cheaper alternative. The 2002 will accommodate a washer bottle/motor from a Datsun with only a slight bending of the BMW botthe bracket. Cost -- about \$10 complete.

Clint Steiger, Portland Chapter BMWACA

to reduce strain on the turbo. As for a muffler, I recommend one of the baffle "Turbo" models available.

Well, that's about it. And you thought you could just bolt it on! In the December, 1976 issue of Popular Science, Smokey Yunick says, "Turbocharging should be standard equipment or every car and truck on the road. But if our engineers are still scared to death of it how are you going to bolt it on?"

How is my turbo BMW holding up? My biggest longevity problem is building an exhaust manifold that won't crack. Don't EVER scoff at - Detroit's wonder metal -- cast iron.

If I were to do it all over again what would I change? I wouldn't drop the c/r below 7.8 to 1 as everyday driving and cold starts suffer. I'm also having trouble forcing enough fuel through the float valve on the SU carburetor at speed.

What's it like to own and drive my turbo? It's quiet, deceptively fast and unique in this area. In one word, it's neat.

There are even times when I think it's all been worthwhile. Like during a recent BMW Fun Day at Seattle International Raceway when the owner of a Porsche RSR said that during our long run down the straightaway he was gaining on me......slowly.

Ethan Schuyler Puget Sound Chapter, BMWACA

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Beginners Learn Basic BMW Facts at Tech Session

from page 10 car is moving. You could damage it seriously.

* If you drive to work in the winter, make sure your car gets on the highway and travels at a relatively high speed each morning for 10 minutes or so, even if you have to go out of your way to do it.

* Pay attention to your idiot lights. If the red or orange light should come on, STOP THE CAR IMMEDIATELY. Under some conditions, when your oil light comes on you may have only 30 seconds of engine life left -- and that's

barely enough time to notice the light, pull over and stop.

* You can necessitate a \$28 repair job just by climbing into the driver's seat carelessly (or by leaving it wrong). More than one person has snapped off a turn signal or light stalk by catching it with a coat or other garment.

* An adequate set of tools for your trunk should include a 6" flat screwdriver, 6"-Phillips head screwdriver, pliers, vise grips, two to three feet of wire, and 19, 17, 13, 11, 10 and 9 mm wrenches.

Volunteers Needed for Chapter Membership Survey

As indicated in an earlier newsletter, all chapter members will soon be contacted by telephone and asked to provide certain data for our forthcoming membership roster. At the October chapter meeting, coordinators were designated to conduct this survey. Briefly, the area covered by our chapter was divided into seven zones, each zone containing a group of counties or the equivalent. Listed below are the zones and the coordinator in charge of each. (See box.)

As shown, we do not yet have a coordinator for the outlying parts of Virginia. Anyone living

in the Charlottesville area who would like to conduct the survey in that area should contact a club officer. Any chapter members willing to help out with the work should contact the coordinators for their zones.

Also, if you have an unlisted phone number, be a sport and telephone your zone coordinator so the data can be recorded and you won't be left out. Your telephone number will NOT be given out if you don't want it to be.

Cooperation from all members will be needed -and appreciated.

I	-	District of Columbia	Lorin Evans	548-5939
IIA	_	Fairfax, Loudoun, Fauquier and Prince William Counties, Fairfax City and Falls Church, Va.	Vickie Livingston	569-0413
IIB	-	Arlington County, Alexandria City	Fred Fernald	960-9378 (days)
IIC		Remainder of Virginia	?	?
AIII	-	Montgomery, Frederick and Washington Counties, Md.	Fred Weinberg	654-2138
IIIB	-	Maryland, not in IIIA or IIIC	Walter Light	863-7133
IIIC	-	Baltimore, Carroll, Kent, and Hartford Counties, Baltimore City, Md.	Chuck McCullough	285-6614

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Want To Start Something? Be Smart About Batteries

from page 3 plate which are separated and surrounded by an electrolyte solution of sulfuric acid and water. An electrochemical reaction between these components generates electricity when a circuit is closed, such as when the starter or lights are being used.

Battery plates start as lead grids, and a hardener of antimony or calcium is added for plate rigidity. Of the two, calcium is new to the auto industry. Positive plates are coated with a paste of lead peroxide, and the negative plates with a spongy lead. When discharging, the electrolyte acts on the plates to form lead sulfate. As the sulfate forms, electrons are released and flow in an external circuit from the negative to the positive plates.

Basically, batteries have always needed maintenance because some water is broken down into hydrogen and oxygen gases during the recharging process. The gases escape through the vent or vent caps. Loss of too much water could expose the plates, damaging them or destroying the battery completely. Now you know something about gassing.

New types of batteries are on the market which seem to offer maintenance-free or low-maintenance operation -- meaning that, once secured in your automobile, they should last (through many discharge-recharge processes before the active material in the plates wears out and will no longer hold or deliver a charge) with the addition of very little, if any, water.

BMWCCA Dues Up Next Year

BMWCCA has announced that a dues increase has become necessary to help cover our organization's increased insurance costs for 1978. The renewal cost will be \$21; cost for new members will be \$23.50.

There are two new types of batteries like this: low antimony and calcium types. The names refer to the hardener materials used in the battery plates.

In an antimony battery, antimony begins to seep through the lead in the plates as soon as the battery is activated and forms deposits on the negative plates. This changes the electrical and chemical properties and lowers the voltage output. It also increases recharge current, which causes increased gassing. The low-maintenance low antimony battery has fewer of these problems but the newer lead-calcium battery has fewer still.

The lead-calcium battery is much better at resisting overcharges and therefore less gassing occurs. Also, the basic battery construction of the lead-calcium type is designed to keep plate flakes from shorting against surrounding plates. And it has the plates set lower in the battery, putting more electrolyte above the plates. This means the battery can lose more water without damaging itself by exposing the plates. Calcium doesn't seep through to contaminate and destroy the plates through normal use, as in the antimony type. These batteries can be found completely sealed or with vents. Try to get the manufacturer's specifications and read the labels to make sure what type of battery you're buying.

In conclusion, I think the lead-calcium battery is a good buy and you can expect three to four years of hassle-free life, with proper electrical system (starting and charging) care.

American battery manufacturers who pioneered in producing the lead-calcium batteries — they have been used for 40 years by telephone companies for their exchanges — are Delco and Gould. I've seen many lead-calcium batteries in BMWs; they are produced in sizes to fit our cars.



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President's Message, Cont'd. - Deflate the Airbag

from page 2 cannot be responsible enough to take the necessary actions to end it. So once again it is up to the legislators to protect the people from their self-destructive characteristics. The national 55-mph speed limit, mandatory airbags and the like are going to be permanent regulations, and I think it's a shame that our society's way of thinking has gotten so weak as to necessitate such measures. But I have to support these requirements as short-term measures to end the needless deaths. Too bad we continue to reward the criminal and encourage the non-thinker.

Consider the background of this situation. All automobiles sold in the U.S. since the late 1960s have been equipped with belt-type restraints. It is an observable fact that more than 80 percent of the occupants of vehicles moving on the public roads in this country wear no seat belts. More than 80 percent!!! In light of this incredible fact (at least it amazed me when I became aware of it), does it seem fair to you to pay money out of your pocket to provide extra safety (i.e., airbags and other passive restraints) for the benefit of people who obviously don't care if they sustain injury or die in an automobile accident?

I am of the opinion that a person who sets out in a vehicle without first fastening the seat belt has forfeited any right for personal safety and must accept the consequences of doing so. The lawmakers are asking for quite a lot if they expect us <u>all</u> to carry the burden of this irresponsible and unconscionable behavior.

But the highway death toll is even less acceptable than the alternatives we have been shown. Something decisive must be done to alleviate the purposeless loss of human life. For that reason alone do I support the current safety standards, until a form of regulation that is described below can be worked out.

One of the chief objections to be made to the airbag measure is that it's the typical, cheap way of solving a problem: avoid it. If we can protect all incompetent drivers from injuring themselves and others, then we need not worry about training or improving them. The statistics will show a dramatic decline in the fatality rate, the public's moral appetite will

be satisfied, and most important of all (they think) no obvious hardships will be suffered by anyone. Whatever the bureaucrats' motives might be, their "solution" to the problem is no solution at all.

Excepting those few accidents which are true accidents (results of natural phenomena), all "accidents" are caused by one and only one reason: human error. Examples -- a bolt that was overtightened. A person who thinks cars are so sophisticated they can drive themselves. A driver who expects a car to reach highway speeds in three microseconds. All errors are committed by people; tires, telephone poles, wet leaves -- they do not commit errors.

My proposed solution is the Ultimate Solution. It is not innovative; indeed, this concept has been discussed for years. Unfortunately, it is also uneconomical and calls for great sacrifice, and so is unlikely to be realized in its full form. Yet I choose to set a high standard in hopes that a lesser one will suffice.

The solution is to institute extremely rigorous and conscientiously-enforced driver trainsee page 15

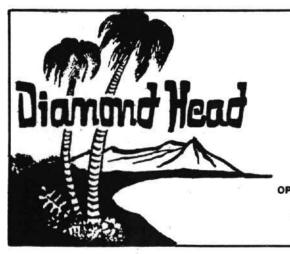
Oct. Meeting Minutes

Tuesday, Oct. 18 Diamond Head Restaurant

Fresident Ken Wright called the meeting to orier at 8:30 p.m. The first order of business was a presentation by a representative of the Federal Highway Administration. The talk concerned air bags and other passive restraints for passenger cars.

The business portion of the meeting followed; minutes were read and approved. Reports were given by the chairs of the various committees. The floor was then opened for nomination of new club officers. The only nomination made was for Ken Wright for another year as president. Announcements were made, and a buy-and-sell session was conducted. There was no further business, and the meeting was adjourned.

Jerry Hoopert, secretary



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President's Message, Cont'd. - Deflate the Airbag Idea

from page 14 ing and licensing procedures. I estimate that no more than 50 percent of the currently licensed drivers would be rejected by the necessary level of selectivity. Those people who can be trained and can pass the necessary licensing tests will drive; the others can take the bus (not such a bad idea in times when we



'Whack Your Turkey'?!?

It doesn't look like our chapter is going to be able to put together a rally this year, so fanatics about all-BMW events will be happy to hear of one taking place just a few hours from here. Those strange people in the New Jersey Chapter, BMWCCA are planning a Thanksgiving-time rally called "WHACK YOUR TURKEY." It will not be the usual type of timed event, but a "gimmick" rally, in which participants can travel at their own rate and can even backtrack if necessary. It's planned for Nov. 27. For details call the rallymasters: Bruce (201)874-3696 or Jeff Davis (201)382-5926.

want to promote mass transit, anyway).

Psychological tests could be developed to identify the potentially unstable and dangerous personalities. Training would include invehicle practice in evasive maneuvering, safe braking, etc. Persons unable to maintain the necessary level of concentration would be failed.

The main problems facing such a program are chiefly economic. The cost of supplying instruction and administering the tests would be quite high. Also, the resulting reduction in the number of licensed drivers would cause a dramatic decline in demand for automobiles and hence the economy would be adversely affected. Consequently, the cutback would have to be spread over a long period of time, and time is the other scarce resource. We require an immediate solution for the short run -- such as passive restraints.

So just remember: when those cheerful balloons start inflating in your faces in the next few years, you can thank those money-hungry people who make sure drivers' licenses are handed out to anything with fewer than four feet, and you can thank all those morons who can't be bothered with buckling their seat belts.

Ken Wright, president

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