

das Krummet



December '73

PRESIDENT'S COLUMN

PRESIDENT'S COLUMN

By Rusty Barton

Well, this is finally it; my last President's Column. It doesn't seem possible that I've been able to come up with enough words to fill 12 columns, but this has been an interesting and enjoyable year with lots going on to write about.

We have become an active member of SEVSCO by staging 4 SEVSCO autocrosses that were very successful and well attended. Our club has also taken an active roll in formation of the new SEVSCO bylaws and in forming and maintaining rally and autocross codes.

This has been a year of transition for our club and its members. The National Club has taken a much more active role in our affairs and made membership procedures easier. We have had a reduction in total members due mainly to reassignment of Navy personnel and the interests of our members seem to be shifting away from competition to service and family related activities.

One large influence on BMW owners this past year has been the unbelievable skyrocketing of prices. I'm sure that there are many of our present members who are driving their last BMW, due to the high price of new Bimmers.

This of course means that our future members, will likely be more affluent and less inclined to risk their highly expensive automobiles in competition, even though the risks are small, less really than the risks of driving on the road. BMW's, as you know, are built for hard driving but it's still hard to convince yourself that autocrossing is good for a \$10-13,000 car. The less affluent among present BMW owners will either have to keep up their present BMW's, or make do with other less expensive (read cheaper) makes - a sad thought.

Elsewhere in this issue is the slate of candidates for next years officers. I think it is a good slate and no matter, who wins in each category, our club will have good leadership in 1974.

Finally, I have enjoyed the past year as President, very much. At first I was a little apprehensive, but its turned out to be a rewarding and interesting experience and I'm looking forward to serving the club in any way possible next year. See you at the Christmas Party.

MINUTES

By Janis Barton

The November meeting was called to order, by President Rusty Barton, at 7:50 p.m. Dave Pritchard reported a balance of \$9.16 in the treasury.

Jim Craig gave the activities report.

Our Christmas party will be held at Dave and Mary Cottrell's on December 15th. Each person is asked to bring a gift, to be exchanged at the party.

Under Old Business - recently a meeting of the board was held discussing compensating borrowing other clubs equipment vs. buying our own. Dave Cottrell is investigating the costs of pylons, etc.

Huey Sullivan is checking on the price of stop watches.

Under New Business - the point system was discussed in detail. A new point system has been drawn up, and unamously approved to go into effect 1/1/74. (See details in this issue).

Nominations for new club officers were held. They are as follows:

President: Dave Cottrell
V.P.: Ken Browning
Vic Shunkwiler
Treasurer: Terry Shunkwiler
Dave Pritchard
Secretary: Artie McCormick
Patti Sullivan
Activities: Rusty Barton
Chmn Paul Honea

We had a good turn-out for this meeting with 24 people present. Four of these were guests.

At 8:45, the meeting was adjourned to the Village Inn Pizza Parlor, where the Tidewater Sports Car Club joined us after their meeting.

The first day of the month is the deadline for articles submitted to the paper. Articles can be given to either Jim Craig, Rusty Barton, or Janis Barton.

ACTIVITIES

NOTICE NOTICE NOTICE NOTICE NOTICE NOTICE

There will be NO meeting on DEC. 18, 1973.

The Final Blast

By Mary Cottrell

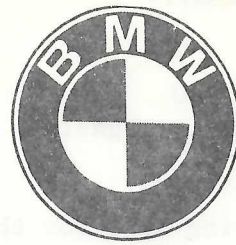
The time has come again for all BMW drivers to prove that they can consume a sizeable amount of party punch and then safely motor their bimmer home.

Our last event of 1973 will be a combination meeting - election - Xmas party, on Saturday, December 15 at approximately 8:00 pm. It will be at the home of Dave and Mary Cottrell - 3749 Historyland Drive in Windsor Woods in Va. Beach.

There are a few things you must remember:

- a) Your marked ballot
- b) One gift per person if you wish to take a gift home.
- c) casual dress
- d) food

The club will furnish a grand holiday beverage for all. The wives will make heavy hor dourves - please, each wife call Mary at 340-6284 to arrange what to bring and tell the club about how many are coming. We want everyone there. Election results will be announced and awards presented. Then the fun and games begin. What a way to start your Xmas season!



WIFE NOTES

By Mary Cottrell

There is going to be a car club drive-out or a tech session or maybe just a family gathering of the club and you are to bring your own meat for grilling for a cookout. Why not get away from the regular hamburger, hot dog or a piece of steak? Without much trouble, you can enjoy a very tasty shish-Kebab. You will have your whole meal in one covered bowl plus your skewers instead of carrying bowl plus catsup, mustard, relish, tomato, onions, salt and pepper, etc. And this you can do the day before so you don't have any last minute rush and you will be sure to have everything. This is how I prepare ours -

Cut up your beef into about 1½ inch cubes. I use a sirloin tip roast or a London broil or sirloin steak. You can even use a nice piece of round steak. Put your meat cubes in a good sized Tupperware bowl. Add ½t. meat tenderizer, garlic, 1T. minced onion, and some parsley flakes if you want. Pour over this 2T. Worcestershire Sauce and 3T. salad oil. Then add water enough to completely cover the meat. Mix well.

Now cut up green bell peppers into large pieces. Cut up a couple of medium sized onions into quarters. And open a can of mushroom buttons. Add these all to the meat and marinate. Mix gently. Refrigerate overnight.

When you are ready to leave home, grab your skewers and put your bowl in a cooler and go - you have your meat and vegetable. When the grill is ready, alternate your meat and vegetables on your skewer and time it so your meat is done just as you like it. Turn the skewer about three times while cooking.

Easy!! And so good!!!

SPECIAL REPORT

TOP POWER FROM BMW

(From Autocar Magazine)

After trying hard for the better part of eight years, BMW at last have a really competitive power unit in formula 2 as well as in the 2-litre sports car category.

The original 1.5-litre 4-cylinder BMW unit of the early 1960's was designed as a "sports" engine, capable of being developed to produce a lot more power than it was offering in standard form. Over the years, the unit was stretched to 1.6, 1.8 and ultimately to 2 litres, the range was supplemented by Ti and Tii versions fed by two Solex twin-choke carburettors or fitted with Kugelfischer port-type fuel injection.

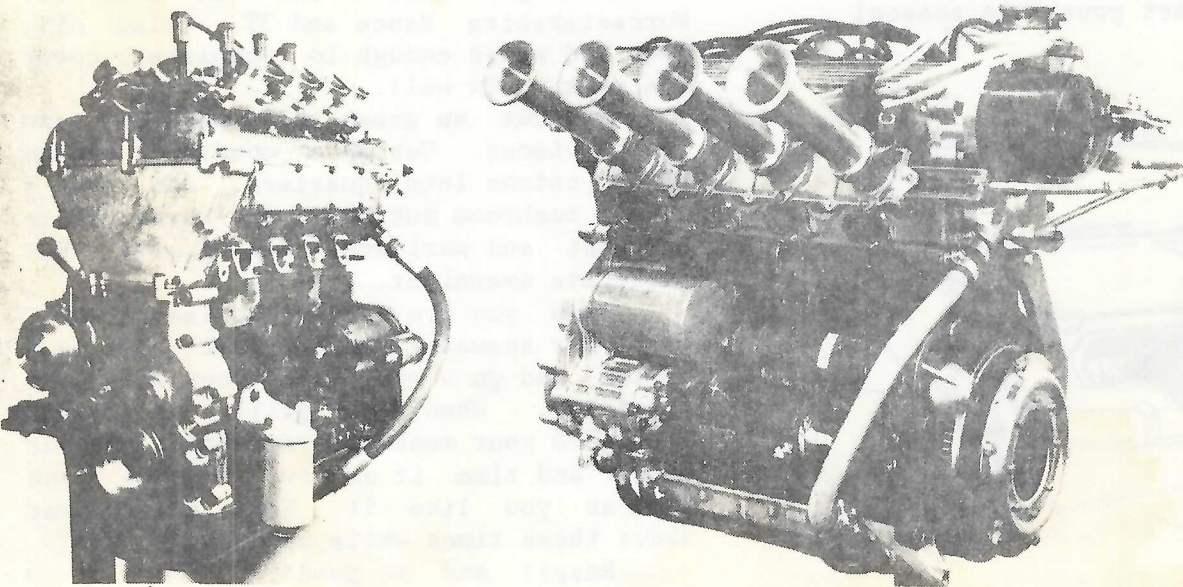
The Munich factory proudly cherished their pre-war racing traditions and although they had some extremely lean financial years, they always planned a return to racing. The first real attempt to get back into big-time competition started in 1965/66 when Ludwig Apfelbeck of KTM-motorcycle-fame joined Alex von Falkenhausen's design staff and produced an intriguing cylinder head with four radially positioned valves per cylinder. This "M 10" unit was built in 1.6-litre and 2-litre sizes - the former for the then valid Formula 2, the latter for a sports car.

The smaller unit gave 220 bhp (DIN), the larger one some 260-265. Although the power output seemed remarkably good, reliability left much to be desired. Chief trouble with the engine was its complicated valve gear that displayed a certain "Softness" in operation at high revs. One British competitor nicknamed the Apfelbeck the "H & H" engine - meaning high and heavy and this indeed it was.

The next step came in 1967 when a new cylinder head with the valves in parallel pairs was introduced. This stage was the "Diametral" engine, so called because the head was not of the more usual cross-flow type, but the valve-pairings put an inlet and an exhaust valve adjacent at each side of the longitudinal centreline. Several versions of the Diametral - engine were built. M 12/1 (that won a race at Hockenheim and another at Albi). M 12/4 (also a 1.6 litre) and the 2-litre M 12/3.

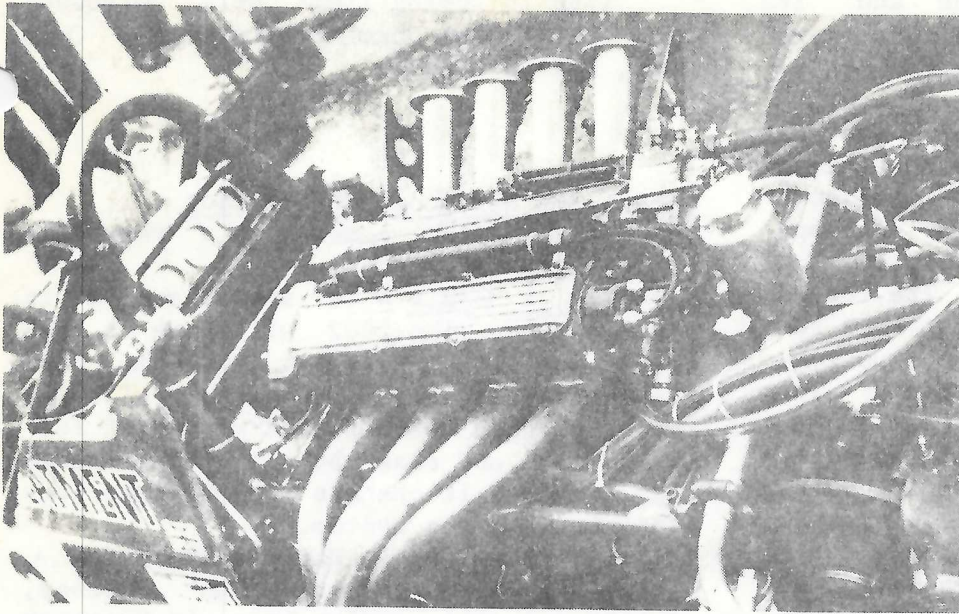
When development had reached a point where there was sufficient power available and reliability seemed within reach, management clamped down on the activities of the competition department and stopped further investments in such exotic machinery.

During these dark days a small group of enthusiasts led by Falkenhausen carried on their development work clandestinely in their spare time, jokingly calling themselves "BMW Underground Racing Team". They were developing a new unit, the M 12/6. This had a capacity of 2 litres and a 16-valve cross-flow cylinder head.



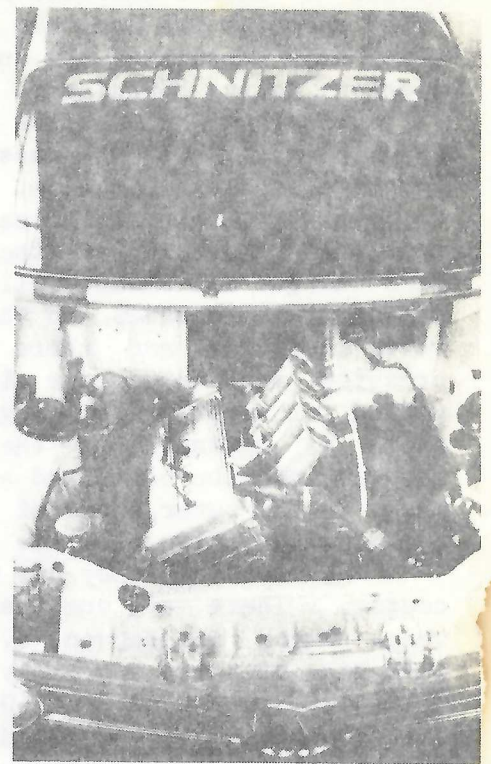
Far left: The 1600 c.c. "Apfelbeck" racing engine with radially placed valves. It had the same number of inlet trumpets and exhaust ports as valves — eight each

Left: Next in line of development came the "Diametral" engine — again with sixteen ports — but one inlet and one exhaust valve on each "side" of every cylinder. It gave very good results except at very high revs when apparently gas flow inside the combustion space got "mixed up" and power tailed off rapidly. Fuel-injection here is by Lucas



Above: The latest 12/6 racing unit installed in the March 732 formula 2 car. Fuel-injection and distributor are driven by the camshafts

Right: Gudgeon-pins are located by threaded-in rings



Above: Unlike the works 16-valve engine, Schnitzer's can be installed at an angle in the 2002 saloon. Note the provision for drilling further sparking plug holes for three-plugs-per-cylinder version

When, after a change in management, the green light was switched on officially again, this engine was fairly well advanced. It was decided to build at least 100 units by the end of 1972 to have it homologated. At the same time a contract was negotiated with March Engineering in England by which the British constructor was granted exclusive rights to fit the BMW 12/6 racing engine into their formula 2 and sport cars.

The BMW 12/6 racing unit is built around the standard production cylinder block. It has a bore of 89 and a stroke of 80 mm and a cubic capacity of between 1,991 and 1,999.7 c.c. The light-alloy cylinder head is fitted with two overhead camshafts driven off the crankshaft front end by spur gears. The camshafts run in five plain bearings that are cast into a narrow casing, the bottom of which houses the bucket-tappets. The top of the camshaft case is closed by a neatly ribbed lid. Between the two camshaft housings the plugs are placed centrally. The head-casting provides for three plugs per cylinder but usually only the central re-

cess is drilled and tapped to take one plug per cylinder only. Slightly more power is generated at peak revs by using three plugs per cylinder, but apparently some nasty things happen to the pistons if a central plug fails.

Valve diameters are 36.5 mm inlet and 31.5 mm exhaust with 7 mm stems for both. It is interesting to note how the included valve angle has been reduced over the years. The Apfelbeck engines started with 70 deg, the latest M 12/6 is down to 40 deg symmetrically split both sides of the centreline.

A few years ago 70 deg was common with double ohc-designs and only lately angles have gone narrower. The Ford BDA uses 40 deg as well and the Lotus 2-litre has gone to 38 deg. I asked Alex von-Falkenhausen about this and his opinion seemed to be that somewhere between 30 and 40 deg was the optimum angle, but there are other considerations like space and plug positions.

Inlet and exhaust port-pairs are Siamesed inside the head casting, their entries and exits being horizontal. A massive light-alloy induction manifold in-

cludes a common throttle-slide and its "lid" supports the inclined inlet-trumpets with the nozzels of the Kugelfischer injection, facing downstream.

The lower part of the engine follows normal lines, but the massive connecting rods are made of titanium. BMW had some trouble with them at an earlier development phase, but after the supplier had been changed all seemed well. The forged pistons have recesses in their crowns for valve clearance and there are two compression and one scraper ring each. The method of securing the grugeon pin, however, is unusual, as the end pads are screwed into the boss and staked by dents made in the outer edge of the plug that engage with little cavities in the skirt.

Lubrication is by dry sump system of course. There are one feed and two scavenge pumps, all driven by gears plus a full-flow filter. Normally, the oil tank holds 11 litres and at 7,000 rpm and an oil temperature around 120 deg C. pressure should be 112 psi. The use of Castrol R30/B353 is recommended. Ignition is by condenser with individual impluse-charge.

In current form the M 12/6 is developing some 265-275 bhp (DIN) between 8,500 and 9,000 rpm on a compression ratio of 11 to 1. Safe rev-limit is rather near this at 9,100 rpm.

Parallel to the BMW developments, the Schnitzer brothers, one of the better-known tuning enterprises specializing in BMW power units, designed a 16-valve cylinder-head for the 2-litre unit, of which 100 were made by the end of last year to have the conversion homologated. The Schnitzer conversion fits production engines and relies on the chain-drive for the twin overhead camshafts. Unlike the factory's 12/6 engine, the Schnitzer conversion or Schnitzer-converted power units with their 16-valve head, are readily available to all racing teams.

(The following items were "borrowed" from the latest Cummins Newsletter. Once more, thanks Dick!)

Latest BMW New Model Information

This information comes from a very high source with BMW.

(A) New 74-Models - It should arrive in mid-December. The 2002 will have a revised tail light assembly and some dash changes. This upper series car will remain unchanged with the exception of federal front and rear bumper requirements plus seat belt changes which interlock with the ignition system.

(B) 530 Model (small Bavaria type) -U.S.A. car will go into production in October, of 1974 and will arrive here in December of 1974. This model will be imported in the six cylinder version only and all 530's will be fuel injected. My speculation is that the price at the time of introduction will be \$9000 and up.

(C) 2002 Turbo Version - This car will not be brought into the U.S.A.

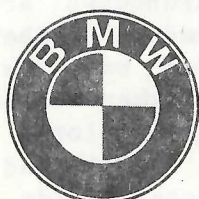
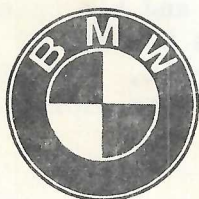
(D) Bavaria's with Fuel Injection (3.0Si) It's only 50-50 that these automobiles will ever see these shores. (At least \$1000 more than the Bavarian plus greater gas consumption (18 mpg vs. 24 mpg) discourages the importing of this model.

More Sixes and Turbo-Charging from BMW

BMW will use the Frankfurt motor show as a display case for a range of more powerful 1974 models which will include a face-lifted and re-equipped 1600/1800/2000 range, the expected six-cylinder versions of the newer 520 saloon series plus even higher performance, limited-production editions of the 2002Tii and the 3.0CSL.

The most interesting model of the 1974 four-wheel line-up, however, will be a production turbocharged road-and-track version of the 2002Tii, simply titled 2002 Turbo, which offers 170 (DIN) bhp from the 1990cc SOHC engine.

The car, to be built only in Group Two qualifying numbers, is intended to improve the firm's representation in rallying and in the emerging Group One class of circuit racing.



The Turbo is visually distinguished from the Tii model by wider-rimmed alloy wheels fitted under flared arches like those on the rally cars. It is fitted with front and rear spoilers and carries the multi-coloured striping of the firm's team cars. As with other models in BMW's small car range, it features a facelift and changes to the rear lamp clusters. All models are expected to have a new fascia based on that of the current 520.

Meanwhile, the 520 model is to receive a power boost with the inclusion of the six-cylinder 2500 and 2800 series engines to supplement the fours. The two new models are to be produced by extensions to BMW's Dingolfing factory near the Bavarian East German border.

The six-cylinder 520 models may be unveiled at the Frankfurt show, but production is likely to be initially slow as the extensions are not scheduled for completion until October. The plant will then supply all six-cylinder 520 models, including those for the US market. Because of a high European demand for the present four-cylinder models - the year's production was ordered by March - BMW has not been able to send the 520 across the Atlantic which, with its emission equipment would be too slow anyway.

The base model of the range is expected to be the manual-gearbox version powered by the 2500, 150bhp engine. However, the 528 will be available with the 170bhp 2800 engine linked to the three-speed automatic.

An important modification will be made to the lightweight CSL production boy-racer model to make it more competitive with the rapid Cologne Capris. A new 24valve, double-overhead-camshaft cylinder head works is now in production. Replacing the present 12valve single ohc head, it will give the model an additional 20bhp in production-line form, raising the figure to about 240bhp. In Group Two racing trim it is said to be capable of nearly 370 bhp.

Not for Frankfurt this year but perhaps for release in 1974, is a new 4.5 little V8 engine to re-power the top-line BMW's. One source says that work on a V12 is also taking place, but an entirely new body shell would probably be needed to accommodate it.



TECH TIPS

SOUND PROOFING YOUR BMW

By J.L. Cummins

The sheet metal panel behind your back seat is a giant sound resonator. Remove the back seat and install either heavy foam rubber or regular automobile sound deadening material (available from J. C. Whitney). Pads from commercial laundry presses are excellent too. Use contact cement to install the foam padding, but use it sparingly, otherwise the fumes will linger for weeks.

The interior quarter panels may be removed by lifting the chrome trim along the bottom of the rear window sill. Begin removing the chrome strip from the rear of the window - working forward. There is one "arrow clip" at the base of the panel which can be popped and then the panel may be removed by lifting it. Four clips will remain on the sill. Before doing anything else, remove the clips. Take the panel and position the chrome trim along the proper edge. Now use the four clips to attach the two pieces together. It is ready for installation after sound proofing the rear quarter panel.

A spray undercoat with a wax/petroleum base is an excellent way to rust proof and sound proof the quarter panels, at the same time. If you want to go all the way, install foam rubber too.

After sound proofing the rear of your BMW, you will realize just how noisy that engine fan is. Now I have to save a little to purchase a Wood Jeffrey's fan.

FRONT DEFROSTER

By J. L. Cummins

If your front defroster is as inefficient as mine was; you can eliminate the slow, agonizing wait for the mist to clear by wrapping the cheap paper ducting with two layers of silver ducting tape. Leave some excess tape at each end to wrap around the plastic defroster fittings for an air tight seal.

Make your Amorall GT-10 last longer - eliminate the waste by using a clean top off a liquid shoe polish bottle or use a small

piece of cloth to wet and rub the rubber. The spray device is really wasteful, especially for stuff costing \$2.98 for 8 oz.

STEREO SPEAKERS or PUTTING MAGIC FINGERS IN YOUR REAR SEAT

By Paul Honea

Most 2002's equipped with radios use a pathetic little 5 inch speaker mounted within the confines of the console. The arrangement is neither pleasing to the ear nor the eye, and it also robs the owner of valuable storage space. Full stereo effect and hidden speakers can be had by following these instructions.

Peeking underneath the rear seat you will find a broad expanse of metal plate covered with carpet. This flat area makes an ideal mounting place for your twin 6 x 9 inch speakers, with at least a 10 - oz. magnet.

Remove the rear seat by pushing back and up on the front of the cushion. Place the cushion outside the car. Peel the carpet off the plate using the cloth tape at the top.

Take a speaker and place it on the plate between driveshaft tunnel and side panel. Trace the oval pattern onto the metal using a soft pencil. Make sure you have about half an inch clearance of metal above and below the speaker.

With 3/8 inch bit chucked firmly into your electric drill, make numerous holes (the more the better) around the inside perimeter of the oval. Punch the metal out. Drape your carpet over the plate and using a piece of chalk, mark the area to be cut on the back of the carpet. Cut this with a single edge razor blade, but be careful.

Now, mount your speakers using a flat perforated grill painted a color to complement your carpet.

This method of installation takes a little time and a bit of metal work, but with the rear seat back in place, the sound box effect it creates is marvelous. A curious by-product is the tingling effect it imparts to rear seat passengers' derrieres.

WASSER PUMP BLUES

By Jim Craig

All of us have in the past and will continue in the future, I'm sure, to use substitute parts rather than the higher-priced factory parts for the repair and maintenance of our BMWs - to wit, points, plugs, brake pads, shocks, etc. When these substitute parts are of equal or better quality than the factory parts and cost less, it would be foolish not to use them, right?

But when these parts are not of equal quality, you risk damage to your car and conceivably loss of life or limb if a critical component "died" at an inopportune moment. That's the subject of this little blurb.

C.E.W. Distributing Co. on Military Highway in Norfolk - a fine business establishment which many of us have been frequenting on a regular basis for many items - has been and is still selling a grossly defective substitute part for BMW four cylinder models (except the tii). This item is a rebuilt (in Great Britain of all places) water pump of such poor quality that it would be laughable - were it not for the expense and possible damage it could cause.

The pump is attractively priced (around \$18 vs. the dealer price of \$25 for a BMW pump), but it simply doesn't work. The impeller is smaller in diameter and has fewer vanes than the standard factory impeller. In addition the flange/shaft / impeller assembly is so poorly balanced that the bearings must have an extremely short life expectancy. Speaking of short life expectancies, how would you like to replace your head gasket and possibly have a warped head or a few collapsed pistons? Use this pump and you'll find out soon enough. The temperature gauge will seldom read below 2/3 maximum and more than likely be in the red zone for most cars.

Don't buy it!

For Sale:

1959 BMW 502 Sedan. Black, Drive-train and body in good condition, upholstery needs repair. Call Mrs. George Raikas for appointment. 723-4643.

COMMENT

PARTS-10% DISCOUNT

by Vic Shunkwiler

Smith Corner Motor Company now extends to BMW Club members a 10% parts discount. The Smith Corner Parts Department is new and well stocked. If anyone has any special parts requests see Dick Joyce. He's probably the most courteous and helpful parts man you've ever met.

BUYING OR SELLING A BMW-SEE VIC

Vic Shunkwiler is now associated with Smith Corner Motor Company as manager of BMW sales. It would be greatly appreciated if those of you who are thinking of buying or selling a BMW would ask for Vic at Smith Corner. Call before you come so that he will be there to meet you; residence: 421-3788/2662 or 488-4401.

CLASSIFIED

FOR SALE: Two Cibie 180's; one driving, one fog; both 100 watt. 2 spare 100 watt bulbs and 2 55 watt bulbs as well as covers are included. \$45 or best offer. 488-6843 after 5:30.

For Sale:

1972 Bavaria - Polaris Silver, sun-roof, air-conditioning, inertia reel seat-belts, Michelins, 4 spd, FM/cassette stereo, low mileage, will consider trade of good condition 1600/2002 - call Dave Cottrell 340-6284 home, or 425-4218 work.

Wanted:

1600/2002 in good condition. Call Dave Cottrell 340-6284.

The Bey Em Vey Corporation is a club for enthusiastic BMW owners and a chapter of the BMW Car Club of America. Meetings are held at the Janaf Branch of the Norfolk Public Library on the third Tuesday of every month, at 7:30 p.m.

The Bey Em Vey Corporation is an independent group of BMW owners and is not associated with the manufacturer, importer, or dealers of BMW automobiles.

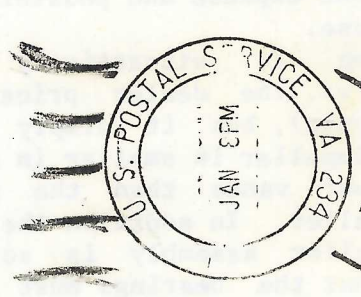
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