

THOUGHTS

BMW Happiness Is...

A tii or 3.0 csi
No smog equipment
Green springs
A winding road in the mountains
Suckering a "sports car" into a turn
it shouldn't even consider
Borg-Warner synchromesh
Weber carburetors
Living within 200 miles of Cummins
Motor Sales
An official workshop manual

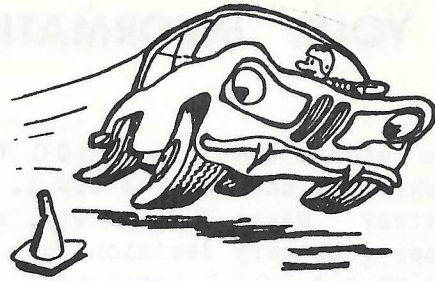
BMW Misery Is...

Your wife telling you she just curbed
your BMW ("Are XAS's very expensive,
dear?")
Your BMW's gulp valve quitting at mid-
night in Raleigh, N.C.
A new Bavaria that runs as smooth as a
3 cyl. Saab
A Zenith carburetor
Draining your BMW's gearbox and finding
you've been using hypoid oil for the
last 10,000 miles
Finding a large piece of the transmis-
sion on the magnetic drain plug
Losing the screw which holds the con-
denser to the distributor.
Having your BMW rear-ended 3 times
Driving a Ford Torino while your 2500
is being repaired

COMPETITION

British Motor Works??

Ernie Corr reports in the Jan. issue of
the BMW Bulletin (New Jersey Chapter,
BMWCCA) that Alpina is no longer the of-
ficial BMW Racing Division. It seems BMW
lost the European Touring Championship to-
brace yourself- Ford Capri. The '72 BMW
team cars will be prepared in England (why
not Rumania?) by Ralph Broad of Ford Es-
cort fame. Well, maybe '73 will be a good
year.



Classes for the Masses

Let me introduce myself - I am a novice
autocross driver bitten by the bug to get
out and see how much rubber from my XAS
tires I can leave on the Janaf parking
lot.

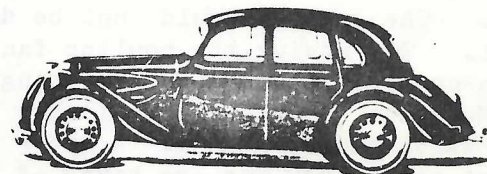
On Feb, 20 I ran my 2002 at an auto-
cross held across the great pond, on a day
not fit for man or beast. The usual cars
were there, namely the winners - the ones
who know they are going to win week after
week. Today however, there was a change -
we were running under Metro - Washington
rules. What was said after hearing this
wasn't fit for man or beast either.

The rules shuffled many cars around
from class to class, hoping competition
would be tighter. All the people who came
with tires bigger than stock were sent to
modified. I'm not an expert as to what
determines what is stock or modified, but
to me stock is a car that transports mom,
dad and the kids to and from work and
grandma's. Whoever thought that super-
wide tires, radical suspension changes,
etc. were stock, I'll never know.

Thanks to the Metro-Washington system
this is spelled out quite clearly. When I
compete with my Bimmer, I just want to
know I have a chance to win against the
same type car as mine. I believe that
the Metro-Washington rules are well
thought out and try to make autocrossing
a sport for everyone. I encourage you to
support our representatives to the ruling
body and help see that these rules are
adopted in the Tidewater area.

Charlie Maas

OUT OF THE PAST



BMW 326 (1936-40) 2 liter 6

FOR YOUR INFORMATION

Curses

Cummins reports that the 2000 touring (hatchback) will not see the U.S.A. Ever feel cheated? Maybe Hoffman will reverse this rather arbitrary decision when (read if) sales of the 2002 level off. The present body style is not yet outdated, but it has been around since 1966 and tastes (as well as styles) change. That hatchback would really sell, but it would mean additional body parts to stock (hah!) plus extra windows which are not common to the 2002. Maybe logistics are the problem.

Sneak Preview

"First" photos of the new BMW 2004 or 2504 appear on page 15 of the March issue of Road Test. The central portion of the car (roof-passenger compartment) is nearly identical to the current 2500/2800/Bavaria/3.0. The hood and trunk are slightly shorter in length and have a pronounced downward slope when compared to the Bavaria. The grill and tail light treatments shown in the photos are not in their final forms. The car looks good - let's only hope we are not also denied this model once it is introduced. Maybe a letter writing campaign would work?

Buying A Used BMW?

So you're thinking about buying a used BMW. How do you know what you're getting into? You've checked the car-it's clean, no bashed fenders, the paint is OK and it runs. Here are some other things to check: Inside the car: Try all the switches to be sure the wipers, lights, windshield washer, turn signals and heater blower work. Don't forget to try the radio. The clutch pedal should depress smoothly and quietly. The heater should work.

Under the hood: Check for oil leaks at the front of the engine. A slight oil film on the side of the engine is not unusual, but massive leaks could be very expensive. The engine should not be dripping oil. Try moving the cooling fan up and down or side to side (not rotating the fan). Movement of the fan indicates play in the water pump bearings. A water pump will cost about \$30 and two hours of your time to install. Does the radiator show signs of leaking? That could cost you.

Are the radiator hoses in good shape? If you're looking at a three year old car and it has a Varta or Berga battery, you will need a new one before long.

Under the car: Check the rear transmission seal. If the rear of the transmission and the underside of the car are covered with gear oil, you could be getting into some expense. Check the exhaust system for leaks and excessive rust. Check the differential for leaks. Watch out for cracked axle boots, bent axle shafts or A-arms, and bad u-joints. All of these items cost \$\$.

Tires: Check for adequate tread depth. Are all four tires the same size, brand, and type? If not, you could end up in a ditch or wrapped around a tree. That's expensive! How's the spare?

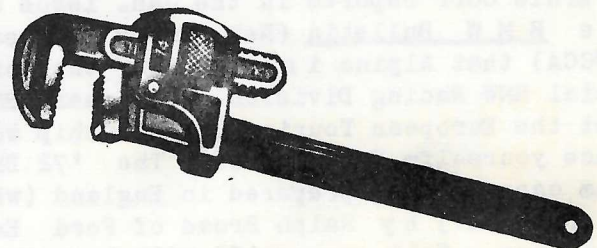
Wrecked? Check for evidence of the cars having been wrecked (overspray, ripped panels). BMW's unitized construction makes accurate repairs a necessity. A serious wreck can leave a poorly repaired car with gross camber and toe-in errors. Tires will wear quickly.

Mileage: BMWs tend to be high mileage cars, so don't be too concerned with a 15-20,000 mile yearly average. Do be concerned with how the car was maintained. Generally, brake pads and shocks need replacing at 30,000 mile intervals, so check them.

Drive the car: How does it accelerate, shift, brake and idle? Do the brakes pull or make funny noises? You could need pads. Try a fast shift from 1st to 2nd. Did you beat the synchro? If you beat it or there simply was no synchro action it could cost \$150-\$250 to repair. Does the clutch work smoothly and silently? This is one very expensive item to replace!

Don't buy a dog and expect to repair it cheaply - this just cannot be done with a BMW. If only a few minor items need repair - don't pass up a bargain. Be careful and you won't get any surprises.

Jim Craig



BMW Special Tool #5712

BMW Bavaria for '72

The Bavaria ("Wundercar") has undergone a few changes for the new model year. Nothing major has been done - only detail work.

Under the hood the only items to catch my eye were the changes in the vacuum controls for the dashpots and distributor advance/retard chambers. I hope BMW got it right this time.

Externally, the first items of interest are the restyled air extractor vents at the rear window pillars. Instead of having a horizontal chrome grilled extractor, the 72s have a single slot which runs vertically and is parallel to the edge of the rear window. Viewed from the side, the vent is hard to notice. The tail lights are as large as before, but the functional segments have been slightly rearranged.

The '72 Bavarias have a front sway bar and, horror of horrors on a German car, walnut dashboard trim inserts. Oh yes, the price is \$6751.

A visit to any of the local BMW dealers will reveal that the 2002tii does exist. A glance at the sticker price will probably drop your jaw at least 10mm. \$4600 is a steep price - especially considering that of the four tii's in the area, one won't start and the other three do so most unwillingly. Once service specifications are known and special test equipment has been used, the car will (as described in both Car & Driver and Road & Track) perform admirably. Here's a quick rundown on what \$4600 buys you.

The best place to start is under the hood with the Kugelfischer injected ohc 4. The engine looks more mean and powerful than any Weber carbureted BMW could, and also much more sophisticated. I'm sure it will sound good - if and when. On the tii you will find an electric fuel pump, an efficient replaceable fuel filter and a clamp on the fuel line at the firewall. The tii also has a 44 amp. hr. battery of yesteryear ('68 to be exact). Apparently the slightly larger 55 amp. hr. battery as used on 2002s/Bavarias simply couldn't be crammed under the hood. The alternator has been mounted at the lower left of the engine (you know, where the air pump used to be on your 2002) since the injection unit is mounted where the alternator is on the more mundane 4 cylinder engines. I could comment on how many skinned knuckles you'll get changing the oil filter, but you have to see for yourself.

In the passenger compartment the big news is the inertia reel seat belts/shoulder harnesses. At long last a good system is being offered. The shoulder harness mounting location has been moved to the center pillar (just above shoulder height instead of just below). Unfortunately with the improved seat belts you also get a hideous "Fasten Seatbelt" light stuck on top of the dashboard. The light has no class at all, in fact it's the crudest item I've ever seen on a BMW (excluding GM's air pumps and gulp valves). All operating controls are labeled in print rather than with the symbols of years past. (The symbols were nicer, the printing is neat but...yech.)

The tii comes equipped with 5" wide rims which have ventilation slots to cool the larger front brakes. Personally a 5½" rim would have been a more logical choice for the car. The heavy duty (i.e. more curb resistant) A-arms are used on the front suspension.

Should you call me today?

Maybe you should this very minute. Particularly if you have some doubt that your present life insurance program may not cover your present needs. I've helped many of your friends and neighbors bring their protection program up to date. I'm sure I can help you. Of course, there's no obligation, except to those you love.

Vic Shunkwiler
1089 Kempsville Rd.
497-6117



Metropolitan Life

New York, N. Y.

We sell life insurance.
But our business is life.

tii cont'd

In short the car is the same lovable 2002 with more horsepower, better brakes, better seatbelts, wider wheels, a higher top speed and a \$700 higher sticker price.

Jim Craig

ADVICE

Be Sure

You've got a nice shiny new BMW and you've just brought it home from its very first dealer service. How does it run? Was everything done that should have been? Let's hope so. You can make a few spot checks to satisfy your curiosity - and you should (you'll sleep better). With no special tools and without getting your hands too dirty you can get an idea of what was, or more importantly, of what was not done to your car.

Without a timing light and dwell meter you can't check the ignition timing accurately - but if the car runs OK, it's probably close ($\pm 10^\circ$). With the engine running and at normal operating temperature, how do the valves sound? A faint mechanical ticking or clicking is OK. Silence is very bad. If you hear nothing you could be buying eight new valves. If one or two or all of the valves are clanking away like someone dropped a handful of marbles into the engine, a valve adjustment should be your primary concern.

Shut the engine off and break out your 10mm socket and ratchet. Remove the six domed nuts and the one bolt (at the forward end) which hold the cam cover in place. (The cam cover has the oil filler cap on it and also has BMW printed on it. Some cam covers should be stamped - no pun - "NO STEP".) Remove the cam cover (being careful not to step on it) and notice the cylinder head bolts (refer to your owner's manual). Two or three of the head bolts should have paint marks on their edges and overlapping onto the washer beneath each bolt. Is the paint intact or has the cylinder head bolt been torqued (which cracks the paint)? Cracked paint is a good sign. Intact paint indicates your engine has never even been approached by a torque wrench. A blown head gasket can be the result if the head is not torqued. Try that one on your wallet.

Reinstall the cam cover.

Now pull the dipstick out. Is the oil clean or dirty? If you've driven directly home and live within a thousand miles of the dealer, the oil should be clean. Now look down at the oil filter. If it appears that the oil has been spilled in the vicinity of the filter, the filter has been changed. It's awfully hard not to spill anything when the old filter is removed. The absence of spilled oil, however, does not indicate that the filter was not changed. A rusty filter does, though. That's about all you can do for the engine.

Using a 17mm wrench remove the transmission fill plug from the left side of the transmission. Smell the end of it. As you've no doubt heard before, hypoid oil is not to be used in a BMW manual transmission. All owners manuals and workshop manuals so state. If the drain plug smells like hydrogen sulfide - you've been had. Get that stuff out of the transmission a.s.a.p. Use 80 weight gear oil or 30 weight high detergent motor oil. Don't let any idiot give you a song and dance about "Well, if it's good enough for a Pinto, it won't hurt your BMW." Don't buy it - get it in writing with a signature.

The differential oil should also have been changed at the initial service. The only real way to tell if it has been changed depends on whether or not a 10mm allen wrench or a hammer and chisel have been used on the fill and drain plugs. Use of a 10mm allen wrench leaves no tell-tale signs, but a chisel does. This one leaves you in doubt unless the plugs are chewed up. But it won't really make you happy either.

Let's hope you found nothing amiss.

Jim Craig

Imported Car Center Inc.

4815 Colley Ave.
489-8429

EXPERT BODY REPAIR

"Aubrey is a magician."
ENODRSED BY BMW CLUB

PARTS

Spark Plugs

If you were to compare heat range charts from different spark plug manufacturers you would find (as I did) agreements and disagreements (CONFUSION) about whose spark plug is hotter/colder than someone else's spark plug. What follows is a combination of heat range equivalencies based on heat range charts and personal experience.

<u>NGK</u>	<u>Champion</u>	<u>Bosch</u>	<u>Autolite</u>
BP-6ES	N9Y, N8Y	W200T30	AG-32
BP-6ES, BP-7ES*	N8Y, N6Y**	W230T30	AG-22

* out of production (hard to find)

** strictly for high speed use (except in Pokorny's 1600)

The tabulation above indicates that NGK BP-6ES and Champion N8Y are the best plugs to cover heat range extremes caused by in-town and flat out driving. Both four and six cylinder BMWs can use these plugs. The six cylinder owners manual doesn't list these extended tip plugs, but they do work and provide better resistance to fouling at low speeds and heat damage at high speed.

Not listed in the table is the Bosch W190 series of plugs which are the original equipment in the U.S. 2002 models. These plugs have a shrouded tip (hot!) and as the 190 suffix indicates, a relatively high heat range. These plugs do not provide adequate service for any BMW with or without smog equipment. These plugs tend to make the 2002 diesel very badly, which is quite an annoyance. At \$3.90 each they are no bargain, so be sure no one installs them when your car is serviced.

(See Fred Andrew for NGK BP-6ES plugs at the low club price of \$1.00 each.)

Jim Craig

Other Goodies From Sears

For the most part Sear's imported car parts prices are higher than dealer prices (in our area anyway), but a few items deserve special notice.

1. Locking gas cap for 1600/2002 (part # 130001487) costs \$5.69 as opposed to \$8-\$10 for BMW part. For 2500/2800 the part # is 130001419 @ \$5.39.
2. The old type ('69 and earlier) 165 °F thermostat is available for \$15.95. Part # 143342748. The new type 176 °F unit is available at the same price, but your BMW dealer has it too - for less \$\$.
3. Quartz iodine replacement bulbs (H-1 type) are available for \$4.45 as opposed to the normal retail price of \$6.50. Part # is A 28 KD 44537.

Tubes

Michelin tubes for radial tires are expensive (just check your local Michelin dealer!) but don't despair. The same type and quality of tube with an Allstate label (and made by Michelin) can be purchased at Sears at a slightly better price than the Michelin dealer will give.

TECH TIPS

Conversations or Re-Flogging a Dead Horse

Recent comments directed at one of our club members while his car was being serviced (?) prompted me to phone Hoffman Motors Parts and Service Facility in Hackensack, N. J. (201 - 440 - 0880). I asked the voice on the other end of the phone if I could speak to someone who could provide me with technical information concerning transmission lubricants. I was told that Mr. Dale would return my call.

Mr. Dale did call and I asked if he could tell me exactly what hypoid oil would do to the BMW transmission. The owners manual and shop manuals tell you not to use hypoid, but they do not tell you what the consequences of its usage would be. Mr. Dale responded positively that hypoid oil should not be used and then went to confer with Mr. Zimmer as to exactly what hypoid does to the transmission. Mr. Zimmer was teaching a course and could not be reached. Mr. Dale would call me again the next day.

Conversations cont'd.

Mr. Dale called shortly before noon the next day and said that Mr. Zimmer had answered this question many times before (three alone to his recollection for persons in the Tidewater area) and that simply put, "the antifoaming additives in the hypoid oil burn the synchronizer ring material." That's it. That's official. You cannot ignore the warning of your owners manual, your friendly BMW club and Hoffman Motors, can you?

I again would like to thank Mr. Dale and Mr. Zimmer for their efforts. I was pleasantly surprised to have been called the first time by Mr. Dale, but twice!! Hoffman Motors gets an A+ for customer relations from me.

Jim Craig

Fuel Filter

If you have been to recent tech sessions, you have probably seen just how small the orifices in your carburetor jets are. It wouldn't take much of a piece of dirt to clog one of the fuel passages. Your BMW, 1602 or 2002 variety, has two filters as standard equipment: one in the fuel tank pickup and one in the fuel pump. These fine wire mesh screens are no match for devious dirt. I have personally had a jet clog with dirt, and have removed many potential cloggers from my float bowl.

My 2002 now has a Fram type G-1 in-line fuel filter between the fuel pump and the carburetor. I removed the original section of fuel line and replaced it with $\frac{1}{4}$ " I.D. neoprene fuel line. I attached a 10" piece to the fuel pump and then to the filter. Using a $2\frac{1}{2}$ " piece of fuel line, I connected the fuel filter to the carburetor. The four new fuel line ends were secured with miniature hose clamps.

Since the filter becomes heavy with fuel, a support bracket, possibly extending from the air filter container, could be made to prevent the fuel line from drooping. The cost for the filter, fuel line and hose clamps was about \$3.50.

Tom Sundstrom

Save That Paint!

If your 2002 has more than 100 miles on the odometer take a look at the jack support brackets on the rocker panels. Notice that the paint has been sand blasted off the leading edge of each bracket. Also notice the rust which has replaced the missing paint. Sand away the rust and repaint the brackets with DeRusto. After the paint has dried coat the leading edge of each bracket with a generous helping of GE Silicon Seal (it's really great stuff!) Eventually the silicon will get blasted off, but it will be far more durable than the original paint.

Jim Craig

BEY EM VEY CORP.
P.O. BOX 62145
VA. BEACH, VA. 23462