

THE AIRHEAD

**The Mouthpiece of the
BMW Airhead Fellowship**

Volume 3 Issue 2



The Oldtimer Rally organised by The BMW Club Oirschot & Environs in May.

The BMW Club Oirschot & Environs is a motorcycle club founded in 1971. Their aim is to promote the tourist use of BMW motorcycles in various ways. The club currently has over 70 members, the majority living in the surroundings of Oirschot (up to ~ 25 km) and Oirschot. Inside the club is a great enthusiasm for the BMW motorcycle and the spirit of friendship and solidarity an important role. (Translated from the club's website).

So, not a large, specialist Vintage club but a small, local club catering for all BMW riders. A club which respects and cherishes the older bikes as an integral part of the BMW heritage. A club we should all envy and try to emulate. Lang kan dit blijven (Long may it continue)

Picture above and inside on p2&3 kindly contributed by Hans Crabbe.

Contents

Page 2	The Oldtimer Rally
Page 4	My Fourth Airhead
Page 5	Insanity
Page 8	My Motorcycling Travails
Page 9	The Art of The Motorcycle
Page 10	Photo Competition
Page 11	Members' Letters
Page 13	Top Tips
Page 14	Tool Hire
Page 16	Editor's waffle
Page 17	Readers' Rides
Page 18	R75/5 Restoration Project
Page 24	A Tail of Six Elephants
Page 29	Beemer Torque
Page 30	For The Joy of Riding
Page 37	Market Place
Page 38	BMWAF Merchandise
Page 39	Members' Discounts



Disclaimer

Whilst The Airhead will never print any information it knows to be incorrect, the views and advice offered herein are those of the individual contributors and the Editor holds no responsibility for any damage resulting from information given here. It is the reader's responsibility to verify accuracy before undertaking any mechanical work. If in doubt, consult a qualified mechanic.





TIME FOR A RANT

Never use bad language and never say anything which might offend your clientele. Two maxims I intend to ignore. Read no further if you're a Brit who doesn't like hearing things told straight.

I could look at these pictures and weep. Instead I see these pictures and get bloody angry. What have we got? - old guys (mostly) on old airheads enjoying themselves despite the weather. It could be us in the U.K. But it's in Holland. And so too in Germany, France, America - virtually whatever country you look at - the same sort of thing will be happening. Just as it did last year and the year before.

Except in the U.K. And what do we have? What do we do? Sweet F.A., that's what. Until we organised the End to End last year there hadn't been a single airhead-only event in this country for 30 years. We didn't celebrate the anniversary of the R90S. We're not acknowledging this year's anniversary of the R100RS. God knows, pigs will fly before we do anything to celebrate 100 years of BMW motorcycle production in 2023. Why are we so effing apathetic?

Decades of being ignored as vintage BMW riders has meant that there is neither custom nor culture for celebrating the bikes we ride. The BMW Club's obsession that the Vintage element should not become 'a club within a club' meant an outright refusal to allow vintage-only rallies. Their squashing of the separate vintage newsletter meant there was no focal point for the vintage element within the club. Meanwhile, decades of the BMW Club being seen as 'the nasty club' with in-fighting, arrogance and cliquism more important than the appreciation of vintage BMW's has resulted in fragmentation of the airhead riding community. Many owners of vintage BMWs saw little point in belonging to a club that was happy to take their money but offered little in return. For airhead riders in the U.K. isolationism has become the norm.

The sad consequence of all this is that our bikes are getting ridden less and less. It is rare to see a 'modern' airhead on the roads: it is almost a historic event to spot a pre 69 bike actually being ridden.

Surely to God I'm not the only one to care. Because if I am then what's the point of The Airhead? Somehow - slowly maybe, but certainly - we Brits have got to find a way out of the morass we've allowed ourselves to slip into. I'm tired of sounding like a nagging old woman going on and on about these things. We've got to act. We've got to find reasons and ways for airhead riders to get involved and get active again. I don't know how we can do this. I do know it won't work if we stay in our own 'club' bunkers. Members of the BMW Club, the BMW Riders Group, the VMCC, the Airheads, ourselves and Jo Bloggs need to forget our own allegiances or personal grievances in order to kickstart a genuine BMW Vintage movement in this country.

If the Dutch, the Americans and the Germans can do it then surely it's time for us to get our fingers out of our own backsides, learn from them and actually DO something instead of whingeing about it.

Now, who's up for organising the first ever vintage BMW get-together in the U.K.?

P.A.

My Fourth Airhead

by Phil Childress(U.S.A.)

I'm 79 years old and my wife says I'm nuts, but I just bought my fourth Airhead, a 1977 R60/7. I'm from Texas and started out with two-wheeled gas-powered things early—like a “Doodle-Bug” when I was about 10, to help with my paper route. I paid \$40 for it used. I then migrated up to a Cushman scooter until I went to college ('54-'58). In 1959 I drove around Europe and S. Africa on a 250cc NSU two-stroke, selling it in London in 1961. Then I went back to Austin Texas for grad school where I bought a 650cc Ariel -- one of the British vertical twins that were shaking bolts and butts loose around the world.

Tiring of the Ariel vibes I bought a cream-colored 1955 R50/2 for about \$450 in 1962—my first Airhead. I rode this to Guadalajara Mexico from Austin and back---beautifully quiet and smooth running. On the long straight road S. of Saltillo I rode it sidesaddle with no hands—they had a throttle locking screw—leaning back on my duffle bag. Bugs (including hornets) were the only bad things.

I sold that when I moved to California, I bought my next Airhead, a R60/2 with Earles fork in 1967 in Houston, rode it there and in New York, then planned a Trans-Africa trip on it. I shipped it with me on a freighter from Staten Island NY to Rotterdam, taking the ferry to the UK then riding to London. I looked into the Trans-Sahara trip---17 countries required visas costing up to \$200 and lasting only like 60 days---and there were 3-4 wars or civil uprisings in those 17 countries. I also found that the 450lb R60 with Earles fork was not the right bike for Africa when a girlfriend and I went to a Moto-cross race outside London in the rain and got stuck in a muddy rut with both cylinders bogged into the mud. I'd seen enough of muddy roads N of Durban in 1959 on my NSU to know I didn't want all that weight. So I opted for a cheap ticket to Nairobi from the Indian ticket dealers in the alley behind the American Express a block from Piccadilly Circus.



Arriving in Nairobi, I bought a Kawasaki 175 Enduro for \$800 (my one and only new bike ever). It was a dream for Africa. Only 225 pounds, it was great on deep sandy dirt roads. I made it to Dar Es Salaam, Mombassa and along the Kenya coast from Malindi to Lamu. That last stretch was all mud and sand—the buses had ropes for the people to help pull them out! I made it from Lamu to Malindi—about 150 miles—in 3 hours. Keep up the speed and you don't have time to fall off!

I sold the Kawasaki in Nairobi and shipped the R60 from London back to Houston. There I sold the Earles fork R60 and bought a 1968 R60US with telescopic front forks. This was much more forgiving on dirt roads---I had fallen with the Earles fork model in front of my Houston house hitting a pot-hole and having the front tire turn sideways. I moved to a job near Washington DC in 1974 and brought the R60US with me. I rode it for several years in DC, finally selling it in about 1995. I also had a Honda 90 Cub (called Econopower) scooter in Mexico. Those Honda Cubs were everywhere in Africa---I met a couple of nurses on them in Mombasa who had ridden them from Nigeria.

In 2000 I bought a 1999 Kawasaki KLR 650 dual sport. I was very happy with the KLR 650 for 13 years. During that time I bought a 2004 R1200C Oilhead and kept it for only 18

months. It was a beautiful bike but weighed about 850 pounds and was a pain to work on. It has an electric fuel pump which wasn't working when I bought it for instance. So I sold the Oilhead.

I loved the KLR—light at 337 pounds---but the seat is 37 inches high and I broke my (right) hip in 2011—after which I had a bit of trouble lifting my leg over the high seat. So I sold the KLR in late 2014, buying a Chinese knockoff of the Honda Super Cub now with a 110cc engine (but still only maxing out at about 45mph). That's called a BMS Bi-Metro, cost only \$1500 delivered, and arrived in a big box at my house in Virginia, took a week or so to put together, and I now use it regularly for short trips around town. On the BMS Bi-Metro, be advised that you have to cut off a steel handle across the seat if you want to keep your sacroiliac in one piece.

Two months ago I happened to see an orange 1977 R60/7 in Craigslist, located near my house, with only 9800 miles on it. I bought it as soon as I saw it for \$3800 and have been modifying it a bit---longer handlebar, rear rack with zipper bag stiffened with plywood, new clear windshield, etc. So now I have an Airhead and a Honda cub knockoff.

The stock handlebar of the 1977 R60/7 was only 25 inches, and it came with a “café racer” fairing and shield which I hate. I wanted a handlebar about like the KLR so bought a 30 inch 22mm dia one for \$31 and new grips for \$10. It took a lot of time to effort to replace it though, including buying longer throttle cables (44” instead of stock 39”), re-routing the brake cable, and fixing a clutch switch, which I broke taking it off, not knowing what it did---it just won't let you start the engine in gear without pulling in the clutch.

One thing happened which I'll mention. Trying to adjust the new longer throttle cables went fine until I tried to screw in the throttle tension adjustment screw on the left Type 53 Bing carb. The top of these carbs are cast pot-metal, and the threads of this side were all corroded so the hollow brass adjustment screw would not go in but about ¼”. I finally called Bing carburetor people in Kansas and they said Bing doesn't have the old cast tops now—new tops use a brass tube bolted onto the casting. To replace both tops would be \$78 each. I asked what the thread size was and he said 6m .75 pitch. I bought two of these taps from Amazon for \$6 and cleaned the threads of that one side. Now it adjusts easily with fingers on the knurled screw.

I went through the tuneup adjustment muck-a-de-muck. of the Airhead--- 3 screws and a spark plug each side---so am OK to go and ready for the spring.

INSANITY

By Frank Cachia (Australia)

Early last century the pushbike, although in very much different shape than today's, enjoyed a following among the children, starcrossed lovers and adventurous middle aged. Friends would gather at predesignated places and go for a ride. Come lunchtime, picnic baskets would come out, a hearty meal consumed and after a game or a stroll, would return home and look forward to the following week's outing. Some of those present also used their bikes to go to work. This was ideal transportation being both very cheap to run and easy to maintain.

It wasn't long however, before the then new contraption called the internal combustion engine came on the scene and soon found itself being shoehorned into a bike's frame. The rider, now devoid of sweat and the huffing and puffing, saw the advantages this offered. From then on he never looked back and the bike soon gained a bigger following. As time passed, different manufacturers were formed and the motorbicycle soon established itself alongside the motorcar. Like the motorcar, the motorbicycle improved and soon diversified into different roles and functions. Sporting, commuters and racing models were to be seen.



After World War I, the motorbike having now lost its motorbicycle tag gained a larger following. After World War II there was, once again, a need for these models and, where before the bike was produced in England, America, Italy and Germany, a new force came from the oriental country of Japan. Here, the motorbike flourished and soon flooded the markets of the world. Since the motorbike diversified into special categories, I would like to bring to light the behavioural pattern of those people who today use the bike in all its roles. Let's start off with the learner; after all, he must pass this stage before venturing further on.

THE LEARNER



The learner is the most courteous road user around, for the first few weeks anyway. Once he has partially mastered his bike he is seen travelling with helmet undone, no gloves and wearing sneakers or desert boots. With his jacket unzipped he practices wheel stands, abrupt lane changing and brake skids. He can also be observed chatting up the sixteen year olds, a cigarette in one hand and a can of soft drink in the other outside the local milk bar. If he does manage to survive his first year, he'll trade his now much abused hack for the latest super bike and start chatting up the eighteen year olds.

THE COMMUTER

The briefcase always gives him away, usually being glued, sticky taped or strapped on to the pillion seat. The commuter is seen on scooters, small twostroke bikes or long discarded Hondas. His unsmiling and unblinking eyes continuously move about and are able to detect any potentially dangerous situation. He's not a motorcyclist but a person who uses a bike only for transportation purposes. Waving a hand in greetings, results in a blank look. A more sombre creature you'll never find.

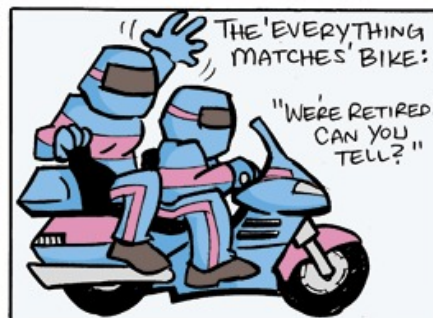
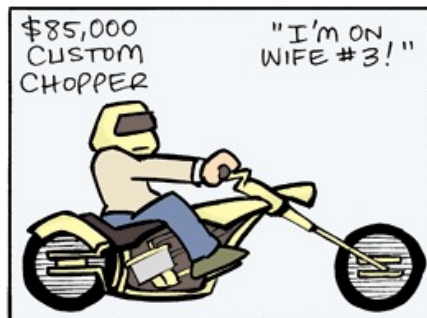
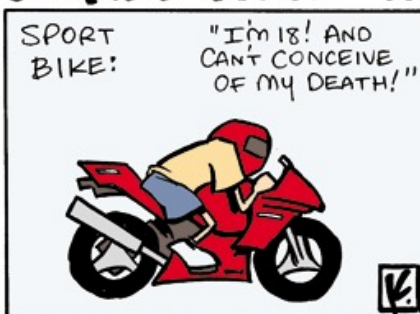


"He loves riding his bike to work, but he hates the traffic. Apparently, he solved that problem."

THE MOTORCYCLE COURIER

His superhuman abilities have sharpened his eyes to a point where he can judge a minute space between traffic and at breakneck speed plays automotive checkers. His adrenalin glands are always working overtime and his heart has a few teeth marks. With multicoloured and much advertised dustcoat flapping in the wind and radio set at full volume, he's able to out-drag anything. Only red traffic lights hold him up. This frustrated drag racer is seen on a variety of bikes. They range from slightly more powerful than a motor mower to intercontinental missiles, able to reach Concorde take off speed before getting caught in the next set of traffic lights. Always in a hurry, he is seen gulping his lunch with helmet still on in between dropping deliveries.

TYPES OF BIKES...AND WHAT THEY COMMUNICATE



TRAILRIDER

Like his surfboard mounted, panelvan brother or Range Rover cousin, his vehicle is never used in its proper environment. He doesn't go trail riding, instead he spends his time revving his engine at traffic lights, belching out blue smoke and being a downright nuisance. The bike is always spotlessly clean; the closest it ever came to dirt is at road repairs. Sitting on a seat high enough that it's level with a truck driver, he looks down at the world through a visor less full-face helmet with a duck bill big enough to accommodate a few decals and a pair of goggles.

POLICE

The bike-mounted policeman shows his mastery over machine whilst travelling between stationary traffic with precision manoeuvrability. Looking smart in his blue badge-encrusted leathers, he is spotted easily thanks to the white quivering aerial. A terror to anyone who spots him in their rear view mirrors, he is seen travelling at breakneck speed irrespective of whether his blue lights are flashing or not.

THE MOTORCYCLE MAGAZINE TEST RIDER

This person is unique. He doesn't know whether he's employed as a motorcycle tester or a report writer with the task of filling a certain amount of pages. Half knowing what he's writing about he stumbles through a report and manages to sometimes rescue himself by making up new words. If that doesn't help he'll fall back onto a dictionary thus inserting long impressive sounding words that no one can pronounce. After showing off his writing skills he's quite happy to be photographed aboard the latest model. Believing he's an expert on all types of bikes he'll impress his peers by sounding off technicalities parrot fashion.

CHOPPER



If the test rider is unique, the chopper rider is an enigma. Picturing himself as Peter Fonda, he dreams of travelling sun drenched highways, chrome sparkling, his bike purring, wind in his hair whilst a blond darling cleans his reflective sunglasses. Instead, the reality is that he ends up spending the weekend wiping his hands on his cut off denims, working on an oiled stained contraption. When he does finally manage to start it and ride off, he has a scratched black open face helmet, no darling and thanks to the front wheel being metres ahead and a car tyre at the back, the evil sounding bike is seen wobbling all over the pace. He then darts from one petrol station to the next, courtesy of a peanut tank. It's just as well: sitting on a narrow seat, without any rear suspension doesn't do his rear end much good.

CIRCUIT RACER

The poor fool who chooses this type of racing pours his body and soul, not to mention all his savings, into it. He'll spend countless hours studying his bike, stripping it, modifying it, reassembling it and hoping and praying that he has done the job properly. After starting it and scaring his neighbours half to death he'll test his knowledge at tuning it. When finally the big date arrives, he'll get up early, hurriedly swallow a cup of coffee, does a mad search and rescue for his helmet, steps on the cat's tail, dives into his beat car and races to the meeting. Once on the start line the stupid thing will either stall or refuse to fire up or if he does manage to take off without cooking the clutch will end up by seizing and is unceremoniously dumped into some solid unmovable object. This is the day he should have stayed home in bed; instead he is now lying in a hospital bed covered from head to toe in plaster and wishing he took up a safer sport like crocodile wrestling.

CAFE RACER

This unfortunate creature can very easily be mistaken for a cripple as he is constantly seen walking in a forward crouch and head tilted to one side. He earns this position from the amount of time spent on his motorbike which features clip on bars and rear set foot pegs. With his backside resting on a padded brick, laughingly called a seat, his chin resting on the petrol tank and eyes looking through a warped piece of Perspex he continuously searches for that elusive perfect bend. Dressed in matching leathers, helmet, boots and gloves, he is never happier than when cranked right over, his boots kissing the tarmac and side stand merrily sparking. Never one to miss a photo of a bike cranked over, he emulates his racing hero. When sooner or later he throws his bike down the road, he proudly shows both his and the bikes' scars to anyone close by, to be followed by how his heroic manoeuvre and complete lack of



fear saved him and others from a far worse situation. He's enough to send anyone round the bend.

OUTFITS

The public thinks that outfit owners attach an extra wheel so as not to fall off. They also believe it is to carry an extra passenger in comfort. They are partially correct: they do place a passenger above the extra wheel, but the poor soul has to share that space with excess luggage ranging from dairy products to a couple of slabs of beer to a six man tent. Once fully laden, the one and a half tonne of semicontrolled hardware is seen tearing up the highway, a ten-foot aerial whipped into frenzy and the passenger gripping onto the sides, eyes glazed from fear whilst the rider has an ear-to-ear grin.

To entice the passenger, the owner usually installs an AM/FM/CD player. Naturally it will be an expensive unit. Once that's out of the way he makes provisions to carry a spare wheel, enough spare fuel to make a petrol tanker turn green with envy and enough spotlights to melt any police car from two kilometres away. He then finishes the three-wheel creation with a snappy paint job. The trouble is the overall cost ends up being more expensive than the basic unit and close to a down payment on a private jet.

Rallyists/Tourer



Very hard to separate these two; they are very much alike. The rallyists, to get to a rally, are prepared to cover great distances whereas the tourer covers great distances without ending up at a rally. Their aims are very similar; they're cast from the same mould. Both carry more gear than they really need. They have the latest in tents, cooking gear and cameras. Both are experts in tyre choice and wear and able to spin the longest yarn. Experts at all geographical localities, they're able to pronounce unheard of names. Happy when covered in

dust or mud as proof of their travels they travel at any time of the year, therefore have electric vests, and hand warmers. They'll gladly go from one place to another that no one ever heard of or even cares about. The only difference that separates them, the only clue to tell them apart is, the rallyists have enough badges on his jacket that once they start to reflect the sun are able to start a bushfire or attract anything from a glow worm to any space shuttle or unidentified flying object.

FINALLY - THE PILLION RIDER,

There are three types of pillion riders, the friend, lover and spouse. To the above my full sympathy. If the pillion is a friend, they will have wished they had their bike on the road, if on the other hand their rider is their spouse they wish they stayed at home. And if they are lovers, they end up either wearing hand me down gear and a helmet that is two sizes too large or spend a fortune getting coloured matched gear as their riders. This does look good, even though they have a sizeable dent in the bank balance and shortly after end up wishing they still had their own bikes or stayed at home.



"I'D LIKE TO TALK TO YOU ABOUT
GETTING YOUR MUSTACHE TRIMMED."

So, there you have it, now you know why the public labels us as insane.

FRANK CACHIA

MUTUAL HELP SCHEME

- Need advice on your Airhead?
- Want to Borrow Tools?
- Need a Workshop?
- Want to Find or Form a Local Group?
- Fancy a ride out?
- How About a House Swap for your Holiday?

Share with and Benefit from Like-Minded Members through our Mutual Help Scheme. Download the list from our website

My Motorcycling Travails

By "Marmite"(U.K.)

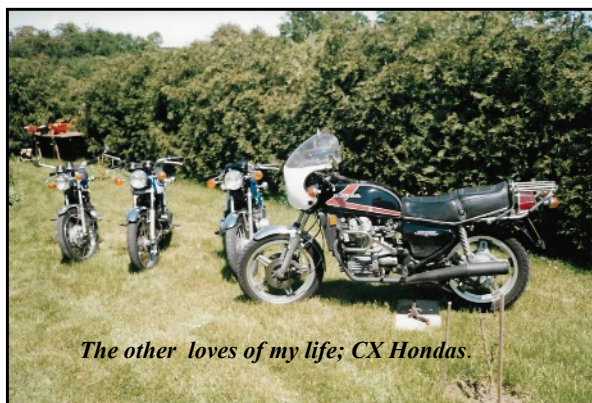
I've no idea what sort of article is expected for my joining fee so I thought I'd make it a little bit about me and something about my bikes in general then where the airheads come in. So here goes -

I was born in July 1956 which for those with agile mental arithmetic will have worked out makes me 60 years old. And you will have also worked out that this age group waded through one of the most significant times in the history of motorcycling. We reached our legal riding days right on the cusp of the British bike industry being buried and the takeover by the oriental machines. I am the middle son of 5 boys; all motorcyclists in one form or another. No sisters, so our poor mother (and father for that matter) had to endure endless hours of "Jap Crap" arguments over the tea table not to mention one of us every now and then hobbling in the back door having just skated off our various steeds followed by father saying "here we go again, off to the hospital to get stitched up".

My first 2 wheeled ownership was at the tender age of 16, a Puch Maxi which I bought for £20 and sold six months later for £50. Not only that but the fully comprehensive insurance cost a princely £4 a year and that was without having built up any no claims bonus. It filled my heart with sheer joy and started me on this wonderfully addictive road of motorcycling. Even during those crippling days of one's first mortgage and having kids, I haven't been without a motorised bicycle for more than 6 months, either a box of bits or a fully-fledged "on the road" machine. I've ridden and owned every



Boyer Trident - my first serious bike. 8 leading Joe Dunphy front brake. I modified this for the road. Boy, I wish I'd kept this one !!!



The other loves of my life; CX Hondas.

conceivable type of bike from Bantams to Goldwing and sidecar, all of them old and sad looking in need of TLC.

In recent years I've been fortunate enough to be able to splash out on much newer machinery and thought that the reason I hadn't up until that point was simply because I couldn't afford it. Wrong. A year ago I purchased a 1 year old NC750 with all the trimmings (persuaded by my son) and we took our steeds to Spain and back for a bonding 2 weeks and whilst I bonded with him I didn't with the NC. It typified the complete mystery of "what makes you like a motorcycle". On the spec sheet it measured up to and met my own design criteria, subtle performance, good economy, comfortable riding position, hassle

free, yet whenever I got off it I wasn't smiling ready to talk about the previous few miles with my riding partner. I can only sum it up with that well used phrase "it lacked soul". This must be infuriating for the brilliant engineers at the big four. They spend countless hours, months and even years researching and testing a new machine and can feel justifiably proud (in most cases) with their results, only to read reports by people like me and professional road tester "it's a great bike but it lacks soul" and then to rub salt into the already open wound by praising the non-Japanese comparison bike which drinks fuel, breaks down and rides as comfortably as an ironing board.

Of course, all of us who love this wonderful world of motorcycles know the answer - there isn't one.

Apart from riding and owning many different machines I've even dabbled at racing motorcycles, though I noticed no one else around me was using that same word to describe my efforts. My first attempt was on a Honda 500 / 4.

I've been race mechanic to a successful clubman's rider on a beautiful and proper Rob North Triumph Trident. I made my early living (if you can call £63 a week for 5 and a half days work, "a living") as a mechanic at one of the largest motorcycle chains in the country at the time and later spent 5 years in the Engine Test facility for Castrol oil company.

It was my brother in Aus who suggested I take a serious look at an airhead BMW because he had a R80GS PD. Within 6 months I'd found a sorry looking R80RT slung in the back of a dealership in Taunton and bought it off him. Sometime later we found ourselves on our way to Berlin (1998?) for the 75th anniversary of the making of motorcycles at Spandau. It

My rather silly attempt at racing. This is Castle Combe in '85. The bike is an Yamaha RD 250 / TD1. I only stopped because Freddie Spencer begged me to.



The first BMW I owned and which I have come back to. My Aussie brother and I went to Berlin in '98? on it for the 75th anniversary of the making of m/c's at Spandau. That was an amazing event with thousands of BMW's riding through the central arch of the Brandenburg Gate, guided by the police.

was a massive event with hardly enough room to swing a swing arm in the camping area but great fun all the same. The old R80 hummed all the way there and all the way back with us only stopping to fill up with fuel and swap riders. For some pathological reason I got bored with bikes and change them regularly so she was outed for something else (can't remember what). Later on a couple of R80GS went through my fingers as well as a few K's but that original R80RT kept gnawing away at my memory so a few months ago I splashed out on a lovely 1991 dark blue one which is the only model of bike I have ever owned twice.

So here I am in February having lined up several trips abroad and itching for the 'horrible winter weather to go back from where it came and allow us all to take to the roads again in pursuit of our favourite pastime, and this year "I shall be mainly" cruising nice and sedately on my new best friend behind that massive and effective barn door taking in the French and Spanish countryside.

Martin Marmoy

The Art Of The Motorcycle

Mark Rogan

10 years ago I had never photographed a single motorcycle. My photographic exploits were predominantly limited to taking photos of landscapes and city scenes.

This all changed after a chance meeting with the owner of a classic motorcycle shop in south east London. For years he had been toying with the idea of producing his own classic motorcycle calendar but just hadn't got around to it. Of course I agreed a photoshoot without understanding I was about to enter a whole new world.

Our very first shoot made me realise this wasn't simply a case of putting a motorcycle in a "nice" spot and taking a photograph. I arrived at our agreed location to find a heated debate amongst the assembled entourage, as to whether a particular set of bolts were correct for the bike and whether we should photograph from one side of the bike or the other. It was eventually agreed that the bolts were correct and that the timing cover side was preferred – my first thought was "What is a timing cover?"



We are now shooting for our 10th calendar and as you can image photographing at least 12 bikes a year for 10 years means I've met a lot of characters, made some fantastic memories and seen some beautiful bikes. There are a number of words I could use to describe the people I have met on this journey but the three words that best describe all of them are passionate, dedicated and enthusiastic. Whether its hearing them discuss nuts and bolts, correct paint colours or reliving stories from their past the affection they have for motorcycles never seems to diminish.

With so many motorcycles photographed and a new found respect for this previously unknown world I wanted to create a collection of images that would present the bikes in a style that made the motorcycle the star. Every motorcycle has definitive lines and shapes that make it unique. To fully show these features I developed a simple and attractive design

that highlights the art in every motorcycle. I found that by removing the background the focus of the image was the motorcycle and not the rustic cottage in the background.

The Editing Service

Once I had released the collection I had a number of emails from people wishing to have their motorcycle given the same treatment. My "Editing Service" was born. The Editing Service is very popular and many of the motorcycles in my collection have been created from photographs sent to me by my customers.

For More Information

You can view the collection [HERE](#) – The Pixels website offers prints, canvases, phone cases and lots of other cool products. For more details on the Editing Service please contact Mark by email at info@ClassicMotorcyclePrints.co.uk or through his website www.classicmotorcycleprints.co.uk



Photo Competition

Proud of your bike and able to spot a good camera angle or background to show it off to its best? Think you could produce a picture to equal Mark Rogan's?

Why not enter the BMWAF photo competition? We're always looking for good pics to enhance these pages, the website and our Stand displays and we'd love for you to supply them.

To encourage your participation Mark Rogan has donated this stunning picture (20" x 16") of a 1974 R90S to be awarded to the member who creates the best image of an airhead.

It doesn't need to be your bike. You don't need the latest all-whistles-and-bells professional camera. Any standard 'point and shoot' (and even some mobile phones) is capable of taking good, high resolution pictures nowadays. The skill lies with the photographer, not in the camera!



Just send the highest resolution image possible as an attachment to an email. Be sure to make it clear that this is a picture for the competition and include a few details such as bike model, age etc.

The winner will be announced in a future issue.

Letters to The Editor

Caveat Emptor - Again!

Proving yet again that buyers need their wits about them when thinking of buying a used bike, here's a pre- 60 R50 being advertised as a 1968 R50/2. I thought other members ought to know about it.

<http://www.carandclassic.co.uk/car/C757830>

Name withheld by request

Dear Peter,

Thank you for the new The Airhead. I fascinated by the R7 story and by coincidence I was given back copy over the weekend of Hemmings Motor News (February 2017).

There is a report on the 2016 Pebble Beach Concours d'Elegance in which an R7 was featured.

I have attached a scan in case it's of any interest.

James Cheyne



Once thought lost, this 1934 BMW R7 concept bike was found after some 70 years in storage and restored by BMW, which still owns the splendid machine and showed it at Pebble Beach as part of its 100th anniversary celebrations. Not just streamlined and stunning, the R7 also featured a monocoque steel structure, an innovative engine and BMW's first use of telescopic forks.

Hi Peter,

Thank you for the updates. I really do look forwards to receiving the Ezine the content being just what I expect from an international group of Airhead folk. I have Stamford Hall in my diary and will try to make it.

Over the past 6 months I have given two talks to my local VMCC section on 'The life and times of Mike Hailwood' which were well received. I was astounded to read of the R7 and this beautiful machine, thank you for including this. Art Nouveau is a favourite of my Wife and we have visited the Mackintosh exhibition in Glasgow, Jill has made some nice stained glass windows in the Mackintosh style.

I would like to prepare another talk this time on the R7 and ask for your help in directing me to sources of information or pictures I can use, this will really help me. There is of course no rush for this as the talk will be winter.

Mel Vinton

I've had more emails and phone calls about the R7 than any other topic since starting The Airhead. I've even been phoned from the States by a member keen to get more information about this (to my eyes) truly beautiful machine.

Unfortunately, there's nothing more that I can add. The Vintagent's article gave all the info I currently have available. I'm hoping that someone out there might be able to add more. If you can then please let me know - there's clearly an awful lot of members keen to learn more.
P.A.

Dear Peter

I've been meaning to reply to your very thoughtful email for ages - sorry. I'm a South African airhead fan, currently based in the United States. I also lived for eleven years in the UK (mainly London and Berkshire), where I managed to pass the IAM advanced test on my trusty 1979 R100RS. So I've ridden on three continents, and I'm always fascinated by the subtle differences in biking, biking culture and bikers between the three.

I hear what you're saying about losing members, especially American members, and that you are worried you've reached some kind of "peak membership" and that interest may be in decline. So here's my ten cents:

1) Airheads are becoming more popular every year it seems, so momentum is on your side. For every older member who retires, there must be two potential younger members, new to airheads. I guess this does raise issues of what kind of electronic product / membership is on offer, what kind of mediums (Twitter? Instagram? A more interactive website?) might lie ahead, etc. - I'm no expert, but an emailed PDF is "old school" and maybe needs to be supplemented by something else? Maybe you need a web-developer to take the site to the next level? (preferably a young hipster with a beard, waxed moustache, a love of craft ales, etc). New areas of airhead-ery like customisation, bobbers, etc might be in the offing? And small ads - lot of small ads, please.

2) I'm a very keen member of the (American and Canadian) Airheads Beemer Club (ABC) (do you know them?). They produce a monthly printed and mailed newsletter, which I really look forward to getting. Apart from the normal content, it has a fantastic tech section where members write in for advice, answered by Oak Okleshen, possibly the most technically knowledgeable airhead I've ever come across. They also have a very strong State network, with each state having an "air marshal" in charge of club activities for that state. Each state regularly has "tech days", organised by individual members, camping weekends and other get-togethers, all ultimately organised with the blessing of the air marshal, and it is around these that the members really coalesce. There is a members' directory, with details for each member printed in it, including whether each is prepared to offer tech assistance, or even a bed for the night, which is mailed to each member. People go touring on their airheads over here, with the "dAIRrectory" as a main insurance policy against breakdown! I wonder whether your organisation shouldn't consider moving into these kinds of events, that build membership and really consolidate it? Perhaps each county or region could have some kind of air marshal equivalent? The ABC newsletter, in other words, is really just reporting on their activities, rather than being the main course. They sometimes resemble a family. This is what you are essentially competing against in North America.

3) I don't think you can keep doing everything yourself - farm out some tasks to others, incl advertising, web design, small ads, member services, marketing, etc. Don't be scared to charge people more, to seek sponsorship, get advertisers, sell T-shirts on the web, etc etc where needed either. Pull together a committee of like-minded people. Consider a hard copy of the newsletter, for an additional fee. You can still be primarily a charity, but you also need to grow and become (hate this word) sustainable. Especially if you are going to continue to move from being primarily about the newsletter, to being a fully fledged club or organisation more along the lines of ABC. If you got tired of The Airhead tomorrow, would it continue?

4) One thing the ABC doesn't do is concentrate on safer riding techniques, and bike safety and better riding generally. UK has a big comparative advantage here - the IAM motorcycle division will have a lot of ideas, and it might be worth meeting with them for a chat. And talking of issues, ABC does not "campaign" or inform members on anything even approaching a political issue either - even fairly innocuous stuff like better bike parking, bike use of HOV lanes, lower tolls for bikes, etc. Another area to explore?

5) Why not survey all your members? Make it a comprehensive survey so you know lots about what people ride, what they want, what they think, age, gender, favourite beer, etc etc. You'll probably need some kind of incentive / prizes to persuade people to fill in the survey, in my experience. Survey Monkey make surveys pretty easy (and are free too, I think). Having said that, people often don't really know what they want till they see it, so bear that in mind too - you can chase your tail trying to keep everyone happy.

6) ABC have got Hans Muth out to talk at one of their meetings at least once - how about aiming for this one day too? After all, Germany is a lot closer to the UK than it is to the USA.

7) Finally, I hear you on needing articles - and promise to send one soon.

Thanks for a great newsletter, and for all your efforts

Jude Cobbing

Hi Peter,

Can I advertise my tour business in Spain in Readers Discount?



I'm offering 15% discount to members

Ron Thomson

In the last issue a member sent a photo of a starter motor with broken bit over gear, he enquires if any members have come across this problem as well. I can tell you that many years ago I serviced a 90/6, after service as I pressed the button to start, I heard a loud "clack" and further investigation showed the broken cap over the gear just as in the photo, I was fortunate to be able to get a replacement motor under guarantee from BMWs.

As regards replica Hella blinkers mentioned, it is worth remembering that there are NOT made to fit 22mm diameter BMW handle bars, internal diameter of BMW H/bar is 18mm replica lamps have a diameter larger than 18mm, so to fit them the owner has to reduce this diameter slightly to fit them, reducing this diameter is not very easy as these lamps will crack like a biscuit if you are not very careful. These lamps are very highly polished like chrome, so they are very easy to recognise them, Hella lamps have standard alloy finish and not highly polished. It is likely that replica lamps are made to fit 7/8" British size bars, almost like 22mm but not quite the same.

Bob Porecha

Peter,

I went along to the recent Prescott event and it was really good ... prob about 1500 bikes there + everyone else in cars (mind you, the weather couldn't have been better).

I've registered an interest to be a club exhibitor and have said a stand size of 5m by 5m as I needed to stick something in the 'box' to register our interest.

I think the cost was £3.50 per sq m for businesses but it did say there would be other charges for bike clubs etc.

As I said, this is just registering our interest only & the date for 2018 is 15th of April.

I'll pass on any more info as I get it.

Jon Maisey

I've included this to show members that we're all in this together - Jon saw an opportunity and went for it. He didn't assume it wasn't his place or that someone else would do it. That's how I'd love all members to react. There's no 'management' or 'committee' here. Just all of us - doing it for ourselves because nobody else will. Please - if you see an opportunity where you think the BMWAF might benefit then go for it. We can sort the details later but unless YOU are pro-active then nothing will happen and we all lose out.

Peter,

I don't want to sound smug (well, maybe just a little bit), but here in Brisbane Qld, deep in the southern hemisphere and one week away from the official start of winter, today's temperature range was 14 C (overnight) to 25 C with a blue sky. I had a very pleasant ride on the country roads west of the city on my R90s.

In another few weeks, in the depths of winter, we can expect temperature ranges of 10 C (overnight) to 20 C (daytime), but I and hundreds of other hardy bikers will brave the elements and keep riding.

Actually, I think our riding season is similar to yours; December is OK, but I do little riding in January and February because I just can't stand the thought of wearing jeans, boots and a helmet.

Anyway, enjoy your riding.

Leo Cruise
Brisbane

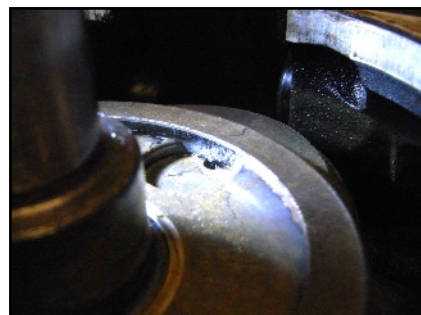
TOP TIPS

I have often been asked about my advice on oil slingers. People want to know whether it is really necessary to strip the engine and clean them.



The photos here are from a customer's R69S. He bought a used machine and was not sure about whether the slingers were clean or not. My advice to him was to have them checked before it did too much damage.

On stripping the engine it was found that unfortunately it was too late for his bike.



The photos are self explanatory: the slingers are overflowing with sludge and have partly blocked the oil holes on the crankshaft, ruining the big ends and requiring a crank rebuild.

I would also advise anyone to CHANGE the slinger plates instead of cleaning them, as countersunk holes on the plates have sometimes been known to have tiny microscopic cracks allowing the slinger plates to detach from the crank causing some damage.

BETTER SAFE THAN SORRY. If you are not sure - replace the plates.

Safe riding,

Bob Porecha

The following may be of interest as a hint or tip.

Drum braked airheads have the brake cam pass from the inside of the rear axle drive, through the oil filled drive unit to the outside where the brake arm attaches. My 1982 R65LS has had a problem for a number of years where the final drive oil leaked onto the brakes via the cam. This is not ideal...

There are some "O" rings that are supposed to stop this happening. However replacing these "O" rings would only solve the problem for a short time. Not understanding why this was not a problem that everyone suffers from, I eventually found the time to investigate.

It would appear that the pre '81 bikes were fitted with a tube in the final drive that the brake cam ran through. For some reason this was removed for the '81 series bikes but re-introduced, presumably due to oil leaks, in '83. The tube is currently still available from BMW (part 33112301760, but do check that is correct for your bike) for about £10.

Studley's Motorcycles in Dorchester, after examining a post '83 drive unit, were able to machine my existing drive unit to accept the pipe. My long term leak has now at long last gone. The apparent reason for the leak was that the hole in the drive unit had worn slightly oval.

Now a quick question. Has anyone found any Heinrich type leg shields that will fit an R100R? As far as I can tell, Heinrich never made any for this model.

Kind Regards,

Pete Constant

BMWAF TOOL HIRE

Following input from members the hire scheme works as follows:

1. Email editor.theairhead@gmail.com to check on availability.
2. Pay a deposit of £50 through Paypal to donate.theairhead@gmail.com.
3. Your tools will be sent out by insured and recorded post.
4. When finished, please return tools by the same method.
5. Provided the tools are undamaged your deposit will be repaid less the cost of postage.

Tools for Pre-1970 Bikes

Cycleworks Many-In-One Tool. Complete engine dis/reassembly tool allows removal of the crankshaft so you can clean the slingers. It holds the flywheel, removes the timing case cover, crankshaft timing gear, front bearing carrier, camshaft timing gear from the camshaft, rear main bearing and the flywheel. It will also press back on the front bearing carrier, both timing gears, rear main bearing and the generator ball bearing. Replaces Matra numbers 282 292 311 355a 499 499/5 535 536 5038 5038/1 5039.



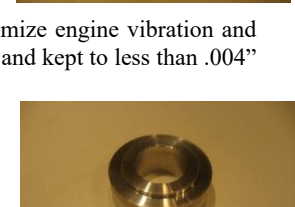
41mm FLYWHEEL BOLT SOCKET 1/2" drive impact socket with the end faced flat to ensure it doesn't slip off the shallow head of the flywheel bolt while you're torquing it to 168 ft.lbs



GENERATOR/ALTERNATOR/MAGNETO ROTOR PULLER A modified 120mm-long class 10.9 bolt used to remove the generator, magneto or alternator rotor.



PUSHROD TUBE DRIFT I 1951-95 AIRHEADS Replaces Matra 530a, used to remove/install the chromed tubes on the top of the 1951-69 cylinders and I believe also all post 1969 airheads.

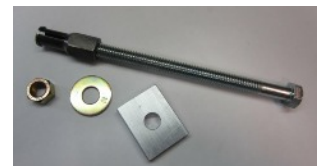


INDICATOR DIAL AND HOLDER TO MEASURE FLYWHEEL RUNOUT and END PLAY To minimize engine vibration and prevent premature failure of the transmission input shaft bearing, the runout of the flywheel should be checked, and kept to less than .004" (.1mm). From 1970 on it can also be used to measure crankshaft end play.



REAR MAIN BEARING ALIGNER The R68, R69s, R69 and the R50s use a barrel bearing to support the rear of the crankshaft (very nice). This tool aligns the bearing while it is being installed. Replaces Matra 5048

CAMSHAFT/TRANSMISSION BEARING PULLER To pull the cam bearing (6203) out of the blind hole in the back of the pre 1970 engine block, as well as the 3203 and 6203 bearings supporting the intermediate shaft in the 4 speed tranny. These bearings will usually fall out if the case is heated, but if you are having trouble with one of them.....



SWINGARM BEARING PULLER - 1955 to 1984 Removes and installs the outer race and stock grease seal of the front (1955-69 Earles) and rear (1955-1984) tapered roller bearings used on all dual (not mono) shock BMW's.

It also pulls the wheel bearing outer race on various cast wheels such as R60/7 R75/7 1978-85 R65 R80GS R80ST 1977-84 R100RT R100RS and any place else BMW or Kukko puller 00 8 551 is called for.



EMPI VACUUM GAUGES for accurately balancing the carbs on most pre '69 bikes. No modification to the carbs is required - the gauges just fit over the air intakes, making carb balancing simple.

ENGINE DVD - TWINS 1951-1969 - BOTTOM END This bottom end DVD covers engine removal and lower end servicing (timing gears, crankshaft, slingers, clutch, etc)

ENGINE DVD - TWINS & SINGLES 1951-1969 - TOP END This DVD covers the cylinders and cylinder heads (valves, springs, rings, etc.)

TRANSMISSION REBUILD DVD - ALL AIRHEADS 1955-1995 Disassembly, reassembly and common faults of the 4 speed (R25-R27, /2 & /5) and 5 speed (post /5) transmissions are covered.

WHEEL DVD How to mount/dismount a tire, lace a rim, true the rim, align the rim to the hub, make the needed special tools etc. Includes instruction sheet on properly shimming the /2 tapered wheel bearings.

BARRINGTON R50 - R69US RESTORATION MANUAL Simply the best and I highly recommend you buy your own copy. Failing that, there's one here.



Tools for Slash 5 Onwards

ENGINE MULTI-TOOL For all airheads 1970 to 1995. Heavy duty, heat-treated steel alloy engine disassembly tool that removes the timing case cover, timing chain sprocket, crank nose bearing, front main bearing carrier and both main bearings. It also presses all of these pieces back on/in; so you can keep your hammer in the toolbox. Works on both single row and double row crankshaft timing sprockets after you've first removed the timing chain.

This kit includes the airhead engine front end tool and adds provisions for removing and installing the crank main bearings.



STEERING HEAD BEARING PULLER SET - 1970-1995 AIRHEADS

Includes both the outer race and inner race steering head bearing pullers, plus everything you need to reinstall the races in the frame and the bearing on the triple tree. Makes this onerous task quite a bit less so.

The outer race puller removes the part of the bearing that gets left in the frame after you remove the triple tree. This is a freshening up of a Cycle Works original tool going back a couple of decades.

The inner race puller is another Cycle Works original that removes the lower bearing that'll be stuck on the triple tree after it's pulled from the frame.

*Note - when removing the lower bearing from the triple tree you'll destroy the dust cap. Both tools work on virtually all BMW's since 1970 with 320/28 bearing



SWINGARM BEARING PULLER - 1955 to 1984 Removes and installs the outer race and stock grease seal of the rear (1955-1984) tapered roller bearings used on all dual (not mono) shock BMW's.

It also pulls the wheel bearing outer race on various cast wheels such as R60/7 R75/7 1978-85 R65 R80GS R80ST 1977-84 R100RT R100RS and any place else BMW or Kukko puller 00 8 551 is called for.



TRANSMISSION REBUILD DVD - ALL AIRHEADS 1955-1995 Disassembly, reassembly and common faults of the 4 speed (R25-R27, /2 & /5) and 5 speed (post /5) transmissions are covered.

Editor's Waffle

June has been a particularly busy time for us this year, with three major events organised by the BMWAF.

Pete Dutton's trip to the Summer Colombres Rally saw his motley crew congregating in Northern Spain to experience the delights of the mountain roads in the Picos. The roads in the Picos are stunning and riding an Airhead around them should be on everyone's bucket list. A report on the rally will be in the next issue of The Airhead.

So too will be a report on our first ever Tech day on June 17. The little town of Market Rasen has probably never seen as many Airheads ride through it in one day but hopefully it will again next year!

Finally, thanks to volunteer Derek Johnson, the Fellowship had a stand at Goodwood Bikefest. Many thanks to those who volunteered their bikes; those who came along for a natter - and especially to the new members who joined there. You're all very welcome and if you're able to contribute by sending a picture of your bike or a short article then we'd love to hear from you.

A spin-off from our successful display at Goodwood is that we've been invited to put on another display at Bexhill on July 30. Thanks once again to Derek and those who have volunteered their bikes. We've got enough bikes for the Stand but if you're in the area come along to the Stand for a natter or to help out. Derek and the crew would love to meet you.

Talking of volunteers and club stands reminds me that **we still need more bikes for our stand at Founder's day at Stanford Hall on July 23**. I've had just three volunteers so far and I need more so if you can spare the time I really would appreciate your help. I've got 8 free entrance passes (usually £7.00) plus vehicle passes for those bringing their bike on a trailer. Contact me asap and I'll get a pass in the post.

The real feather in our cap is that Morton's have finally deemed us worthy to attend the Stafford Show on October 14 & 15. I keep saying that this show is THE one we can't afford to miss and I'm determined to make it a success. We need more bikes to display though. If you can possibly exhibit your bike on our stand then I'd be eternally grateful. Please contact me asap.

I've decided that with club stands at 3 Shows in the South of the U.K. And two further North I don't want to spread members' goodwill any further so I'll be cancelling our Stand at the Fenman's Rally. I thoroughly enjoyed it last year; I met a lot of members I'd never seen before and recruited some new, valued members but we can't do everything and I think it's best to focus on areas where we'll have a higher profile. I haven't actually informed the organisers yet so if you disagree and want to go ahead with this then let me know.

Finally on the subject of volunteers, I want to thank two people in particular: Adrian Jackson and Jude Cobbing. Adrian has been helping me almost from the start by putting the pictures of members' bikes on the website. Unfortunately he's leaving the Airhead fold to return to his first love - a B.S.A. Thanks Adrian - I hope you've got lots of drip trays at the ready!!!

Jude Cobbing has kindly volunteered to be a regular contributor - that's great news. The U.K., Australia and the States have now guaranteed inputs every month. How about someone coming forward from Europe, Japan, Saudi, New Zealand, South Africa - or any of

the 22 countries where we now have members? We'd love to have regular contributions from around the world.

.....
The tool hire scheme starts officially this month, and judging from the requests I've already had it looks like it will prove popular. In my last newsletter I asked for your opinions on how to run it and for the first time since I started The Airhead your views just got me more confused. Opinions ranged from the doom and gloom end of the spectrum - all the tools will be stolen or broken so there should be a deposit to cover the full cost of replacement - down to the hippy view - hey man, why have a charge at all? Let's just trust each other. There really was no consensus on what was the right thing to do so I've kept with my initial thought - a deposit of £30. The hirer pays the cost for insured, return postage and, provided the tools are in good condition, I refund the deposit less my postage costs. There's no charge for the tool hire itself but if the hirer wants to show his appreciation then a donation to the Air Ambulance would be appreciated.

Details of the tools for hire are on page 14. They're mostly Cycleworks' products. These have the benefit of being massively cheaper to buy and much less expensive to post than the original Matra tools BUT they are also much less robust and have various odd components which are easily lost. I trust everyone will take suitable care.

.....
You'll have seen that I'm running a photo competition, the prize kindly donated by Mark Rogan. Please enter if you can I'm building up a collection of pictures we can use on backdrops at shows and rallies so even those who do not win will know that their effort is not wasted. The chances are that your bike picture will be shown in all its glory around the country. Please send entries by the end of July as jpegs to editor.theairhead@gmail.com.

.....
We all know that Airheads are probably the most reliable bikes in existence but by coincidence I've had three people contact me in the last two months because they'd broken down and wondered whether I could help in some way. No problem with that, I'm glad to help where I can, but in every case the distances involved prevented me from being much use. A thought though - before going on long trips/holidays why not download and print out the Mutual Help list? Although we haven't got a specific 'Emergency Help' category (should we create one?), the people on the list have shown a willingness to help fellow members and may well be able to advise on local garages/services who could help.

Finally, it's time to start making plans for any events we do next year. So far I've had calls for a Norwegian Tour, more Tech Days, and a group trip to the Classic TT. These are just suggestions at the moment and won't go ahead unless you let me know you might be interested. All other suggestions welcomed.

On a personal note I think it's time for some sort of Airhead get-together. But it would have to be different - not just the usual socialising within cliques (we don't do cliques in the BMWAF), or the hanging-around-feeling-rather-bored routine that happens at so many rallies. I'd also like some sort of focus for riders of the black and whites. At the moment I'm beginning to think such riders don't exist.

You tell me what you want and I'll try to arrange it.

P.A.

Readers' Rides

Ken Beeney has been riding now for over fifty years, starting with English bikes then moving on to Vincents, Guzzi's and BMW's. He's also worked on 3 wheeler kit cars (Morgan type) with Guzzi, Honda and Citroen power plants.

At the moment he's running an R60/7 with steib sidecar. He's upgraded the engine to 800cc with Japanese carbs and electronic ignition - all done cafe-racer style, which he admits is not to everyone's taste. He's also running a JZR 3 wheeler kit car fitted with a Honda CX500 engine.



Over the years he's gained a wealth of knowledge and experience which he'd like to use to help others. He's asked to put himself forward as an Emergency Contact in the Kent and Sussex area. He can offer spares, repairs and accommodation - or just be there for a cup of tea and a chat.

He's based in Hailsham so if you're in the area give him a ring on 01323 843456.

You all know my views on things like this - it's people like Ken who make the airhead scenw something special. Good for you, ken - and let's hear from others who are willing to offer their help in other parts of the country.

P.A.

Two lovely bikes from new(ish) member Gerry Fredericks.



THE DONINGTON CLASSIC MOTORCYCLE FESTIVAL RETURNS ON 4-6 AUGUST FOR ITS USUAL MIXTURE OF THRILLING RACING FROM MOTORCYCLES OF ALL AGES, STAR GUESTS, DISPLAY AREAS AND PARADES



Thanks to Mike Harley for sending these in. Not a Festival that I know - Should we have a Stand there next year?

R75/5 Restoration Project

By Brook Reams (U.S.A.)

Because I'm doing a rebuild, I disassembled the handlebars, controls and steering stem along with removing the forks. As the steering is "notchy", I'm planning on replacing the steering stem bearings and races and I'll document that in the next issue.

Parts Used

I found a fork rebuild kit at [Hucky's in Section 31 Fork, Shocks, Parts](#), and picked that up along with some new fork springs. At 97,500 miles and 40 years, the springs have likely given their all. Here's a list of the parts I used.

- | | |
|-----------------|--------------------------------------|
| 07 31 R kit 005 | Front Fork Rebuild Kit |
| 31 99 0 000 001 | Front Fork Spring, progressive, pair |

Remove Handlebars and Controls



Refer to the general disassemble section and your Haynes manual for more details about how to remove the handle bars. Since I am stripping the bike down to the frame, I had removed the electrics from the frame and the wiring harness earlier so when I removed the headlight and the steering stem, I'd keep the harness attached to it.

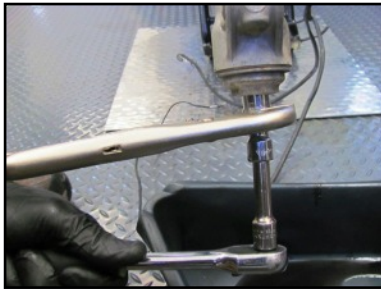
Forks with Wiring Harness Removed

Remove Fork Sliders

First, I removed the fork sliders. Remove the rubber plug on the bottom of the slider to expose the 10 mm attached to the plunger. I use the following tool to loosen the nut from the damper, a vice grip holding a 10 mm socket.



Vice Grip and 10 mm Socket



Place the socket on the nut and then insert an allen key into the socket in the bottom of the damper rod. Turn the socket to loosen the nut and remove it.

Removing 10 mm Nut on Damper Rod



Next, remove the circular steel bands holding the rubber gators to the fork slider and pull the slider off the fork tube. In the top of the fork tube you will see the fork seals. You can remove these with a seal puller. I find that heating the tubes with a heat gun until it's hot to the touch makes it easy to pop the seals out of the fork sliders. Be careful not to score the inside surface around the seal.

Here are the disassembled fork sliders with seals (green), sliders, steel rings for the fork gators, the ring under the large fork retaining nut, cap on bottom of fork slider, 10 mm nuts and wave washer.

Left - Fork slider Parts and Fork Tube Top Retaining Caps

Disassemble Fork Slider

At the bottom of the fork slider is a large cap nut that seals the bottom of the fork tube. I removed that next by putting the slider in my vice with rubber jaws and using a breaker bar to loosen the nut. Remove the rubber o-ring inside the slider. Here are the parts at the lower end of the fork slider, in order from left to right.

Bottom of Fork Slider, rubber cover, wave washer, 10 mm nut, fork plug, large copper ring, inner rubber bumper



At this point, the fork tubes and internal damper rods are exposed.

Fork Tubes with Internal Damper Rods



Remove Fork Tubes from Steering Stem

To remove the fork tubes, loosen the Allan head pinch bolt on the bottom of the steering stem. I like to insert a large screw driver into the slot and with moderate pressure, spread the clamp a little bit to loosen it, and then twist the fork tube while pulling down on it to slide it out of the steering stem.

Remove Handlebars and Controls

Since I'm going to powder coat the controls, I removed them, but if all you want to do is rebuild the forks, then skip the control removal and just remove the handlebars so you can get access to the chrome covers on top of the fork spring nuts.

I removed the left and right hand control levers. The front brake lever has a switch for the stop light, so remove the rubber boot and then unscrew the wires from the switch. Then unscrew the switch from the control

Right Side Control Front Brake Switch



Then I removed throttle cables and the right side control and disassembled it.

Disassembled Right Side Control



On the left side, I removed the clutch cable from the transmission so I had slack in the cable. I slide the inner cable out of the ferrel as it has a slot cut through one side, and then removed the left side control and disassembled it.

Disassembled Left Side Control



At this point I removed the steering damper rod and the lower friction assembly from the bottom of the lower fork clamp.

Steering Damper Disassembly



This bike had handlebar pull backs. I removed them and the handlebars exposing the chrome forks screw caps.

Handlebar Pullbacks and Original Handlebar Mounts

Now, at the top of the fork tube, remove the chrome cover using the pin wrench in the tool kit. Underneath them you will find a large nut holding the fork springs in the fork tube.

Handlebars Removed Showing Chrome Covers Over Fork Spring Nuts



Then, carefully remove the fork spring retaining nuts using the wrench in the tool kit. Since this has fork spring pressure on it, keep your face away from the large nut as it may suddenly get launched if you aren't careful. Remove the fork springs.



I removed the headlight and then the headlight ears from the steering head. Here are the headlight ears disassembled.

Headlight Ears and Top Clamp Assembly



Headlight Ear Headlight Mount Detail

Removing Damper Rod



Turn the fork tube upside down and you will see the snap ring at the bottom of the tube. Use snap ring pliers to remove the clip.

Snap Ring at Bottom of Fork Tube with Damper Rod in Center

There are two kinds of retaining rings, the one I have and another style that has holes in it that will fit the pin wrench in the tool kit.

One Style of Retaining Ring-You Can't use Tool Kit Pin Wrench



Folks have used needle nose pliers spread open to seat the outside of the jaws into the 1/2 circle cut-outs to twist the ring out. I tried that and had no success. My son made a crude tool out of a scrap steel bar with a slot in the middle. I used 3 mm bolts, nuts and washers to create a pin wrench that would fit into the 1/2 circle cut-outs.

Quick & Dirty Adjustable Pin Wrench

And before I got this from my son, I was visiting BMW of Denver and Clem loaned me his tool. This is very clever IMHO.



Clem's Simple Pin Wrench Tool



I removed the top retaining ring using my “scrap steel with 3mm screws” tool.

NOTE: My use of “top” and “bottom” here is from the perspective of looking at the bottom of the fork tube which is the end of the tube facing you as you remove the retaining rings. Of course, when the tubes are mounted in the triple clamps, what I call top and bottom are reversed from the actual top and bottom of the fork tube.

There is a metal ring and then a second retaining ring after that. Rather than adjust the depth of the 3 mm screws in my tool, I used Clem’s on the second retaining ring and it came out immediately. At this point, I pulled the damper rod out the bottom of the fork tube. Right are the parts from outside to inside shown left to right.

Snap Ring, Top Retainer, Metal Ring, Bottom Retainer, Rubber Stop, Damper Rod Assembly.



Rebuild Damper Rod



Here is the fork rebuild kit I got from Hucky’s. There are new fork tube seals, the white bumper at the bottom of the fork damper, the small metal sealing ring at the top of the fork tube, the big copper ring goes under the large retaining nut at the bottom of the fork slider and the small copper ring goes on the 10 mm threaded stud on the bottom of the damper rod, the six metal rings are piston rings that go in the top of the damper assembly. The large rubber bumper goes in the bottom of the fork slider. Sometimes this has dissolved but in my case it was intact. The plastic bag has small springs that hold a check valve ball bearing in the bottom of the damper rod. I didn’t use them as I left the ball valve alone.

Hucky’s Fork Rebuild Kit

Fork Damper Details

I decided to leave the springs that hold the metering ball in place and just replace the piston rings on the top of the damper.

Damper Rod Piston Rings



When I was talking to Clem at BMW of Denver, he loaned me this nifty tool to keep the rings compressed when I reinserted the damper rod into the fork tube. I’ve read that another trick is to use two feeler gauges and then insert the damper rod. The feeler gauges compress the rings so they can slide past the threads in the bottom of the fork tube.

Here’s the tool.

Damper Rod Ring Compressor

The larger diameter end is conical on the inside so it can be slid up the damper rod from the bottom and will compress the rings as shown below. Note in this picture, the compressor is shown upside down (I always do things backwards at first). The larger diameter part of the compressor should be at the top.

*Ring Compressor (upside down) Covering
Piston Rings on Damper Rod*



Here is the damper rod with the compressor inserted into the fork tube. You just slide the damper rod through the compressor into the fork tube.

Damper Rod with Compressor Inserted into Fork Tube





After inserting the damper rod into the fork tube, put the white bumper into the bottom of the fork tube and push it past the threads on the inside of the fork tube.

Inserting White Bumper into the Bottom of the Fork Tube

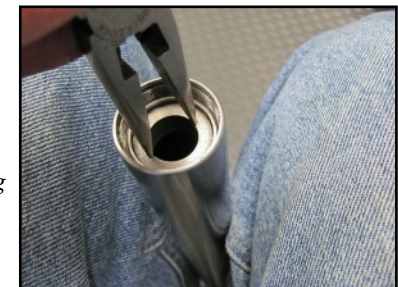


Bumper Stop Just Past Internal Threads



The two steel threaded rings are identical. The bottom ring has the edge point up so it can hold the metal spacer.

Retaining Ring Orientation for Bottom Ring



I spun the ring in using a finger and then tightened it using needle nose pliers.

Tightening Bottom Retaining Ring



Now, place the metal spacer ring on top of the bottom retaining ring.

Metal Spacer Ring Inserted

Now insert the other retaining ring with the edge pointing downward. I spun it in with my finger and used the needle nose pliers to tighten it so it was below the snap ring groove in the inside of the fork tube.

Putting Top Retaining Ring In

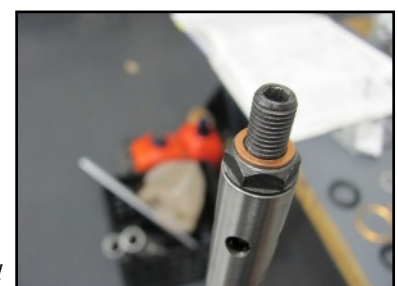


Finally, I used the snap ring pliers to put the snap ring back into its groove in the bottom of the fork tube.

Inserting bottom snap ring

The small copper washer will go on the threaded portion of the damper shaft when I insert the fork slider onto the fork tube.

Small Copper Ring on Threaded End of Damper Rod



Rebuild Fork Slider

But first, it's time to insert the new fork seals in the fork slider. I heat them up with a heat gun until they are hot to the touch and then pound them in with either a socket or a fork seal tool I use but failed to get a picture of.

Using Heat Gun To Heat Top of Fork Slider Before Inserting Fork Seal



I take the large threaded plug that screws into the bottom of the fork slider and insert the black bumper stop so the curved side goes in the bottom of the threaded plug.

Inserting Lower Bumper Stop into Large Threaded Plug



Then, I put some Hylomar on the land of the threaded plug and put the large copper washer on the land.

Large Copper Gasket on Bottom of Threaded Plug

I mounted the fork tube back in the triple clamp and tightened the Allan bolt. Then I torqued the bottom plug to specifications. Next, I put the wave washer and 10 mm nut on the threaded portion of the damper rod and torqued it to specifications..

Here are the rebuilt and refinished fork tubes.

To refinish the fork sliders, I use Scotch Bite pads (green) and Auto Sol aluminum cleaner to get minor scrapes and dirt removed. Next, I use "00" steel wool with Auto Sol aluminum cleaner to get the surface clean and starting to shine. I like to use blue paper shop towels to clean off the black residue between applications of Auto Sol. This can take a couple of applications to get all the grime out of the crevices in the rough casting. Then, I use Auto Sol aluminum polish to get a shine, applying it with a blue paper shop towel and finished up with Auto Sol Aluminum protective spray and lightly buff it with a clean cloth. These look good as new and I hope work as well.



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May 14 - BMW Bike Day at The Ace Cafe, London



Thanks to Peter Simms for sending in these pics of this year's BMW day at The Ace. I recognise two of these bikes as belonging to members. Was anyone else there?



A TALE OF SIX ELEPHANTS.

By The Amateur Mechanic. (U.K.)

My first visit to the Elephantentreffen took place in 1972 when the event was held at the Nurburgring in the Eiffel mountains. It later moved to the Salzburg Ring in Austria before moving again, this time to Solla in Southern Germany, close to the Czech border, where it's still run each year. The following tales date from 1997 onwards when I started going to this event as passenger to Colin Ferguson. I should preface this tale by saying that almost all the problems we encountered on these trips are unlikely to ever be replicated in the UK. We don't have the severe weather conditions experienced on these trips with temperatures as low as -25 degrees nor do we (regrettably) have a road network where an engine can be held at c5500 revs for hour upon hour.

YEAR 1: For my first trip with Colin we used his 1980 R65 fitted with a Czech made Velorex 700 Series sidecar. It still sported telescopic forks, albeit fitted with stronger springs from a Matchless, whilst uprated springs were also fitted to the rear units but other than the fitting of a screen and heated grips the R65 was completely standard. To say the journey to Solla was painful would be an understatement! We travelled to Dover, crossed the channel with Sea France and continued to Bailleul near Lille a distance of some 253 miles on Day1.

Very early on Day 2 we set off for our second nights accommodation booked in Eibelsstadt 405 miles away. When making good time we were travelling at 55 to 60mph on the flat but Oh! the hills. They saw us down to 45mph or less, then the journey became nothing short of tiresome. Colin developed the (slightly risky?) technique of 'tailgating' lorries in order to try and maintain some semblance of progress on the uphill stretches of the Autobahn. Our sustenance



during this gruelling 13 hour marathon consisted mainly of a bowl of goulash soup every refuelling stop.

The Elephant Rally, or Elefantentreffen, is a winter motorcycle rally, which takes place on the first weekend in February or on the last weekend in January annually in a valley between the towns of Thurmansbang and Solla in the Bavarian Forest in Germany. It is organized by the Federal Association of Motorcycle Riders in Germany.

The meeting was created in 1956 by Ernst Leverkus, who had organized it as meeting for winter-resilient drivers of the well-known Zündapp KS 601 motorcycle-sidecar combination. The KS 601 (the "Green elephant") gave its name to the meeting.

Initially from 1956 the meeting took place at the Solituderennen (Solitude) racetrack near Stuttgart. After changing places the organizer, BVDM, took over 1961 and placed the meeting at the Nürburgring. After serious problems and organizational changes in 1978 a transfer took place to the Salzburgring — in the first year still as an emergency meeting with 400 participants, but, starting in 1979, it became a regular meeting. Attendance is now around 5,000.

In 1988 the rally was cancelled, as BVDM no longer wished to bear the liability and risk for it. At the Salzburgring only a privately organized emergency meeting took place. Since 1989 the meeting has taken place in the same area as the Stock Car club. The most important change is the complete prohibition of all vehicles except motorcycles for several kilometers around the periphery of the meeting area.

New regulations called Zurück für die Zukunft, or "Backwards for the Future" in English, were established for the 2015 rally to enforce a return to the event's spartan roots. The rules are meant to ensure that participants do not stage elaborate tents with furnaces or trailer their vehicles to the event. They are now required not to stop to unload trailers or lorries in surrounding towns and roads, to only bring street-legal motorcycles or sidecars on the campsite, and to carry all their camping gear on motorcycles.

Source - Wikipedia.



The final day to our destination Solla was the shortest daily distance we had covered to date, merely 190 miles. Unlike many 'Elephanteers' we were not camping in the disused quarry that is home to the rally for around a week each year. We had a small, warm pension within a couple of miles of the site. At least we were comfortable in the prevailing conditions where the daytime temperature stayed well below freezing and at night fell to around -15 degrees C.

Leaving at 6am on Sunday morning we had 427 miles to get to Duren for our last night stay, followed by a final 'shorter' day of 400 miles to get back home. We'd had a great long weekend but returned to the UK vowing never to return with a 650cc BMW again.....

YEAR 2: Over the next few months we decided the way forward was to build a 1000cc engine and fit it into the R65 rolling chassis. We'd bought out a BMW breaker located in Yeovil soon after the Elephant and were, at that moment in time, inundated with post '70 spares. In order to make the engine 'go' well Colin decided that he would have the heads gas flowed and twin plugged by George Mansfield, who made a first class job of them. Fitted with 40mm Bing carburettors a minimum of 70 BHP should be achievable, possibly even a bit more with the gas flowing.

We retained the pre-81 flywheel (for additional torque) and fitted the unit into the old R65 chassis/running gear. The only teething problem, an initial chronic pre-ignition (pinking) problem, was soon resolved by retarding the ignition and limiting the amount of advance on the bob weights of the canister points system.

Having successfully used the outfit on a BMW Club Southern Section Treasure hunt after Christmas we left full of confidence that the outfit would perform well. This year we intended to visit Prague for a couple of nights, extending our trip to 7 days. The engine exceeded all our expectations. We were accompanied by another outfit powered by a standard 70BHP 1000cc engine. Whilst our engine would comfortably hold 5500+ revs up hills on the Autobahn the standard engine in the other outfit always struggled to stay in touch with us. The trip went really well, right up until about 15 miles from Calais when the 85,000 plus mile R65 gearbox simply gave up the ghost with a bang.....having spent its life handling 45BHP perhaps the bearings simply couldn't handle the 70BHP and higher torque of the R100. We hitched ourselves to the other outfit, towed the stricken machine onto and off the Sea France ferry, then had a short wait for the rescue service we had rung from the boat before we docked. Quiet honestly I think we both felt the

journey home in the warmth of the breakdown truck was a pleasant relief after so many days of sub-zero motorcycling.

YEAR 3: I rebuilt a 5 speed gearbox during the summer. Inside the R65 gearbox nothing other than the selection mechanism could be salvaged as every gear was damaged in some way but at least the shell was sound, or so I thought. My suspicion was that this total failure had been caused by the front bearing (clutch end) on the output shaft collapsing, the usual problem with these boxes, but there was so much damage in the rest of the box it was impossible to know exactly what 'let go' first. To be fair, we were aware during the trip that the gearbox had started to get noisy but when you're 500 miles from Calais there's not a lot you can do except try to nurse it home.

Not only were we reinstalling the rebuilt gearbox but also trying to travel greater distances between stops by fitting a 43 litre Acerbis tank. Fuel consumption when running at c5500 revs proved to be around 28 to 30 mpg which, with the standard R65 tank, only gave a safe distance of around 100 miles between fuel stops. The Acerbis tank wasn't pretty but, to be fair, neither was the rest of the outfit. Purposeful yes, beautiful no!

With our rebuilt box and oversize tank at the end of January we left for Solla, once again via Prague. We reached Bailleul in record time and all went well until we left the Autobahn for our second nights stop at Eibelstadt. As Colin pulled off onto the slip road and went to change down the clutch lever came back to the handlebar with virtually no resistance. His first thought was that we had merely lost adjustment on the cable, so wound out the adjuster until he had a small amount of disengagement. Me? I thought it something more sinister as you don't get a slack cable simply by riding the outfit. Anyway we got to the 'pension' in the village, had a shower, then went down to the covered garage to investigate. The clutch operation felt really harsh when I operated the lever a few times to try and locate the problem. After several pulls there was an almighty crack and one of the cast support lugs for the clutch arm broke off the back of the gearbox. This lug had obviously been cracked for some time and had finally broken? At least we now knew exactly what was wrong!

Needing time to think this one through we retired to the local bar/restaurant for a few beers, a meal and a discussion. Ideally we needed a new gearbox back, something that we could have had sent out to us, particularly as the other outfit with us was being piloted by the then co-owner of a well known BMW dealership from Southern

England. However, frankly, we had neither the time in our schedule nor the facilities too hand to go down this route so needed another solution.

This came to me at about 4am and I'm not still not sure to this day if Colin really appreciated being woken to have the 'fix' explained to him! My 'fix' was to weld a piece from the crossmember on the frame behind the gearbox to a point in line with the remaining lug. This new piece would have a 6mm hole in the end to pick up the pivot pin of the clutch arm. Thinking it out was one thing, getting someone to do it or borrowing the equipment to do it ourselves another. Here the owner of the small 'pension' we were staying in came to the rescue. He started ringing round as soon as we told him the outfit was 'kaput' and showed him exactly why. After a time spent explaining to him that the local BMW dealer really couldn't help us with our problem, later that morning we ended up at a non-franchised Harley-Davidson dealer (in Wurzburg) having carefully driven the clutch-less outfit the short distance from Eibelstadt.

Although he spoke reasonable English the owner of this establishment kept shaking his head, saying 'it won't work'. When I asked if I could borrow his welding set and do it myself he reluctantly agreed that he would give it a go. With plenty of bits of steel to hand in his well equipped workshop (he made Harley 'specials') he soon fabricated the part required, clamped it into position and fetched his MiG welder. For some reason he left his eye protection hanging on the CO2 cylinder and simply placed the torch near the job, looked away and pulled the trigger. After several abortive attempts he managed to secure the plate in position and left us to reassemble the clutch arm and cable.

This 'bodge' proved a complete success so, having settled up with the Harley man, we were on our way to Prague somewhat later than envisaged (it was now well after midday) and we had 250 miles to ride, in sub zero temperatures. Within a few miles we came across the most horrific accident on the Autobahn. It had begun to snow, the outfit had developed a misfire, and we were making very slow progress in virtually stationary traffic. With so little traffic flow we decided to stop on the hard shoulder and investigate the misfire. Having looked at the HT leads coils and plugs without finding any obvious problem off came the timing cover to see if anything was amiss in the points canister. Again there seemed nothing untoward but we cleaned the points as a precaution then fired the bike up. It ran

faultlessly so everything was rapidly reassembled and off we went again.

It was now well after 2pm, the weather had deteriorated further, snow had begun to settle in the outside lane of the autobahn and we still had well over 200 miles to ride to our booked overnight stop in Prague. All went well for around 30 miles until the Autobahn began to climb fairly steadily. By now the snow that had settled reduced the road down to one barely passable lane, we'd seen the snowploughs out but they were all on the opposite carriageway, temperatures had plummeted to several degrees below freezing and the misfire had set in again.

We struggled on for a few more miles running between one cylinder and two until our progress became so slow on the climbs that something just had to be done. By now we had jointly reached the conclusion that the ingress of water must be causing our problems and that what we really needed was a can of WD40. Of course neither outfit had any on board.....The four of us were in the middle of a debate as to exactly how to proceed, especially as by now we were in almost 'white out' conditions with darkness fast approaching, when a Dutchman on a solo K75S pulled into the lay-by. 'Wish I had your outfit instead of my solo today' he said in perfect English. I replied that he certainly wouldn't want our outfit the way it was behaving! Having explained what we thought our problem was I then asked if he had any WD40 by any chance? 'Yes, I've a new can in the tank-bag'. What luck. Everything that could be sprayed with WD was sprayed, plug leads, coils, ignition switch, and the wiring all had copious amounts aimed at them as the can emptied. An offer of payment for the WD40 used was graciously refused and the Dutchman was soon on his way.



We followed, firing on all 4 plugs (remember, we were twin plugged) and with renewed optimism that the problem had been resolved. By now it was completely dark and we were still riding in the middle of a 'white out'. The temperature had fallen a few degrees more and we were now running with a huge piece of ice on the front of each of the telescopic fork legs, pointing forward like a shark fin. Occasionally these bits of ice dropped off but quickly reformed to stretch almost to the edge of the front tyre. We carried on in these appalling conditions when, with still just under a hundred miles to Prague, the misfire came back with a vengeance.

This time it really had to be sorted once and for all. We pulled into a service station to investigate. When we built the bike we decided to remove the toolbox from under the seat and fit a purpose made plate to carry the twin output dynacoils. Looking under the seat by torchlight it suddenly dawned that the Acerbis tank had a shape that was funnelling the snow down the spine of the frame, straight onto the coils! With heat rising from the engine and a delay in looking at them (because it was easier to check the plug leads) each time we had eventually looked at the coils they were dry. This time they were covered in melting snow. Having dried them out as much as possible with the materials available to us they were wrapped in polythene

Modern Beemer Reliability **Quote from Motorcycle.com**

BMW coming in as the second-least reliable marque on the list (of most unreliable motorcycles) may be a bit of a surprise to some. German engineering is known to be some of the best in the world, but nonetheless, 40% of Beemers will see the repairman for something fairly serious within the first four years. Among all the bikes sampled in the survey (not just BMW), the highest single area of malfunctions or repairs centered around the electrical systems of the motorcycle, with 24% of repairs occurring here. This is likely a trend that will continue, as more and more electronic rider aids become the norm in today's motorcycles.

Glad I stick to airheads - p.a.

bags and sealed with duct tape. However what was really needed was something to blank off the front of the Acerbis tank, so our party set off individually around the service station to see what we could find. W. came back trying to conceal a hard, thin plastic Kenco coffee sign. Having taken some rough measurements he disappeared into the 'Gents' to fabricate the required piece. Unfortunately the only way to shape the 'Kenco' sign was to place it on the window sill of the toilet and snap off the bits we didn't need. It was so cold the sign snapped easily but every time it broke it sounded as if someone had been shot. Fortunately no one bothered to check if it was in fact gunshots. The improvised sealing piece was soon installed under the front of the tank, hopefully to prevent further trouble until we were able to fabricate a more permanent solution back in England. We were quickly off once again, running very well now, thinking we really were going to make it to Prague this time. How wrong we were!

In those days the Autobahn didn't run all the way to Prague. About 50 miles from the city the dual carriageway went to single track and on this trip was packed with slow moving ancient lorries from the old Eastern Block countries. We were on and off the newly constructed bits of Autoroute for several miles until exiting one chicane back onto a single track piece Colin leaned over towards the chair to shout that he hadn't got a gear lever anymore! The two outfits pulled off the road by what appeared to be a lay-by located adjacent to a slag heap in this mining area then we turned off the lights. I can honestly say you couldn't see anything. There wasn't a vestige of light to be seen anywhere, the traffic had all disappeared and it was absolutely pitch black. Having found our torches it was apparent what had happened. The bar on the R65 remote linkage between the lever and the gearbox had broken on one of the bends but at least the lever itself was still there. It's amazing what you can do in an emergency with a few cable ties, even if some unfortunate person (in this case me) had to lie on his back in the snow between the bike and the chair to fix them in position. That in itself wasn't too bad, the worst bit had to be the side cutters I was trying to cut the surplus off the ties with sticking to my ungloved hand in the -20 degree temperature..... With the gear change problem fixed the final run into

Prague was trouble free and by 9.30pm we were in a local micro-brewery come restaurant reminiscing on a very eventful day. After a good night out and some sleep things were looking better. During our two days in Prague the coils and tank received further attention and we were now reasonably confident that the modifications made would ensure no further problems. For once we were proved right.

Previous experience running 1000cc engines had made us appreciate how marginal the starting can be in cold conditions with a standard 30 A/h battery fitted, so in the boot of the chair was a new 180A/h Exide 'Torque Starter' with heavy duty cable connections to the bike. This too was proving marginal. We were using 10/40 oil but with temperatures down to around -20 degrees C if the bike didn't fire within the first few revolutions the battery soon started to struggle. A couple of times we got caught out when the bike had stood out for a night where the temperature dropped to below -20 degrees and ended up having to 'bump start' the outfit. We were 'on site' at the rally ground on Saturday morning just as a chap with an R100 outfit was getting ready to leave. He pressed the starter, the engine spun but didn't start. He pressed again, the same thing happened. We always reckoned that about 3 reasonable tries and any battery would struggle in these temperatures but this guy just kept on winding and winding. We moved on debating just how big the battery he had in the chair must be, especially knowing exactly how the 180A/H 'Torque Starter' performed under these conditions. When we passed again about 20 minutes or so later he was still trying to start it. Whilst we stood there he succeeded in starting the bike so, having now seen the BM was displaying a British licence plate, I couldn't resist asking how big the battery in the chair actually was. 'There isn't a battery in the chair, only this one on the bike' he said, pointing at the small orange battery in the battery box, 'its a Hawker Odyssey. The four of us hadn't, at that time, heard of Hawker Batteries, but after the demonstration we had just seen, certainly intended to find out what we could about them! The rest of the trip was uneventful, the bike ran faultlessly whilst the cable tied gear change held all the way home. We were confident we knew the problem area's of the outfit now and thus next years trip would be trouble free. How wrong we were.....

GET REAL

The Airhead exists for you and because of you.

To continue we need your Help

To continue we need your Support

Your Articles,

Your Active Participation

Your Help in Spreading the Word

Your Willingness to Share:

Your Information, knowledge and experience.

The Ezine isn't created out of nothing. The BMWAF doesn't exist in a vacuum. Both exist solely because of our members involvement. Without your help we are nothing.

WHAT CAN YOU DO TO HELP?

Year 4: We selected the 'best' gearbox back from our cache of spares, inspected it by eye as best we could to ensure that nothing was likely to break off this one then changed all the bearings re-assembling and re-shimming the box. We fitted a new Hawker Odyssey battery, removed the 'Torque Starter' from the boot releasing more space for spares and beer, re-placed the remote gear change linkage and worked on fully waterproofing the electrics. The coils were now completely boxed in whilst an improved waterproof membrane was installed in the front of the Acerbis tank to prevent water funnelling through onto the newly sealed coil box. Having had a thorough look at the machine our confidence ran high. This year we felt we had a really good chance of a trouble free run although from previous years experiences we did just wonder what fate might have in store. And it all started off so well..... The outfit ran better than it ever had, again proving to have more pulling power than a standard 1000cc engined outfit that accompanied us on this trip. Each time we came upon a long steady incline our outfit maintained its cruising speed of between 75 and 80 mph just by giving it a little more throttle. The standard motor inevitably lost ground on





these long inclines. We felt very satisfied, even vindicated, for persevering with this old outfit.

The trip to Prague and then down to Solla proved completely uneventful, even giving us time to visit the Jawa factory and (in a different location) a Jawa Museum. We had a good Elephant and started the return journey with everything running well, however by the time we passed Frankfurt we knew we had a problem. The engine would try to stall if not kept above 2500rpm. The further we travelled, the higher the revs needed to keep the engine running. Prior to this we had easily been keeping pace with a German couple on a trick 'Walther' K100 16v outfit, in fact passing them on one occasion at around 100mph (we were still solo geared). We pulled off the Autobahn to investigate. Once stopped the engine wouldn't restart and appeared to be spinning too easily. It's difficult to check compression without a kick start but our collective view seemed to be that we didn't have a lot. Removing the offside rocker box cover to check the tappet clearance revealed that whilst clearance remained on the inlet valve, the exhaust valve had less than zero clearance and, in fact, the valve was well open on compression. Adjusting it to get the required 8thou clearance needed an estimated 16thou of movement on the tappet. The nearside rocker cover removal (between bike and sidecar) took rather more time but eventually showed the same issue. My assumption was that we were witnessing valve seat recession, a view that didn't get wide acceptance from my fellow travellers. Once the valve clearances had been set the engine started immediately, settling down to its normal 950 rev tick over. Underway again all ran well until leaving a wine supermarket in Calais (we liked to load up with as much booze as possible) the engine very reluctantly started but wouldn't tick over. Although we made it to the Port once inside the loading area, waiting for the ferry to dock, the engine died completely and wouldn't start again. There wasn't time to sort it before boarding the Sea France ferry to Dover so the tow rope came in handy again. Once on board the tools came out and the rocker boxes came off. Most of the crossing time was spent waiting for the motor to cool before adjusting the exhaust valves to get some clearance again. My theory on valve seat recession now became accepted as fact. I still find it hard to believe that no one from Sea France challenged us about remaining on the car deck for probably 75% of the crossing time. The rest of the trip home went without a hitch. It wasn't many days before the heads were off and the damage assessed. Both exhaust valve seats were really badly recessed, so much so that they would certainly have to be replaced. This trip took place just after German petrol stations had ceased sales of leaded petrol, however, as the engine had run several thousand miles on leaded fuel, we felt the build up of lead protection on the valve seats would see us through this trip. It didn't. I believe the reason for this is directly related to the continual high revs at which the engine was run.

As mentioned earlier it ran at 5500 to 6000 revs for hours at a time on the Autobahn where the exhaust valve temperatures would have been very high. Had we run at, say, under 4000rpm I suspect we might have got away with it. Fitting unleaded seats appeared to be the answer.....

YEAR 5: During the summer the heads were fitted with unleaded exhaust valve seats, new guides, valves and springs. Things didn't appear to be going too well when, upon trying to start the engine in his local garage after refuelling, Colin heard an ominous metallic noise as he pressed the starter. He realised something was really amiss and fetched

his trailer. Once the heads were off the cause of the problem was plain to see. One of the new valve inserts had dropped out and jammed under the valve, bending it badly, fortunately without much further damage to head or piston. Now valve seats in BMW heads are cast in whereas any replacement seat is simply pressed into a suitably heated head having an interference fit. This one obviously had insufficient interference to hold it in place when it got very hot. The firm that fitted the seats were as concerned as we were about what had happened, soon replacing all the damaged parts free of charge whilst apologising profusely for the trouble and inconvenience.

So, off to the Elephant once more. By now, with a quicker outfit, less refuelling and using the Channel Tunnel we had extended the first days journey as far as Duren (400 miles from home) to try and even up the daily mileages a bit. The second day we went to Eibelsstadt (225 miles) then to Prague (250 miles) before arriving at Solla (150 miles) for the rally. The outfit was flying, certainly going as well as it ever had done. It wasn't until we started the last bit of the return leg that it began to play up, once again stalling at tick-over speeds and being extremely difficult to start when hot. We'd been here before with these symptoms last year when we suffered valve seat recession, but surely with unleaded seats running unleaded petrol this couldn't be happening again? Well actually it could, and was. Once again we had no exhaust valve clearance caused by recession of the seats. How could this be with hardened seats fitted? I believe the answer to this is for either (or both) of the following reasons. 1. The seats fitted were designed for use in car heads which, being water cooled, run lower exhaust valve temperatures. 2. Few vehicles run (once again) under load (the sidecar) for hour upon hour at 5500 to 6000 revs as we were doing. Anyway we made it home under our own steam whilst considering our next move.

Year 6: This turned out to be our most successful year. The previous years valve seat recession had been insufficient to do any real damage to the hardened seats so after re-grinding the valves we were ready to go. Rather than lower the engine speed to avoid last years problems we decided to give it a go on Morris' Zero Lead 2000 additive, something I was already using in my own 'leaded' machines. The trip was an outstanding success, absolutely no problems and having returned home and checked the valve clearances we found these hadn't changed at all in the 2000+ mile trip. After our first trouble free trip we looked to the future, 'retired' the 1000cc engined R65 and Colin set about building a K100LT with a Velorex for the next trip. Now these early K's really were bullet proof.....weren't they? Actually, no, but as they say that's another story and not one for The Airhead.

BEEMER TORQUE

A New Column by Jude Cobbing (U.S.A.)

Now 'Adequate Transport Only'

I used to get upset whenever I thought of the way the Used Bike Guide once snippily dismissed BMW airhead twins: "Classic twin-shock air-cooled Boxers now adequate transport only, despite the ravings of die-hard enthusiasts". Nowadays I guess I am a die-hard enthusiast, so it doesn't bother me too much. Or maybe it was meeting Daf, one of the instructors for Thames Valley Advanced Motorcyclists in the mid-noughties, who was in his seventies but could outpace Honda Fireblades on his R100R Mystic in real-world traffic. Adequate transport indeed. There's a lot to be said for die-hard enthusiasm – at least we know what we like. The American Airheads Beemer Club (ABC) prints a saying: "The only test of a motorcycle that matters is the satisfaction it gives you". What is it about airheads that keeps owners so loyal? I was thinking about this a while ago when the left carburetor on my R60/5 started dripping fuel onto my boot again – easy to tell on a hot day, since your foot starts to feel weirdly cool. And, yes, I had already changed the cork gasket, checked the float levels the new way, made sure the floats actually floated, and several other things the gurus recommend. The only thing I could think of was that a tiny piece of crud in the fuel had held the float valve off its seat and flooded the chamber. Funny thing is, I have a fuel filter in the tank, and another one in the fuel line, and both are clean. I guess some things, like private health insurance tiered plans, the way the seats of locked bicycles always seem to get stolen (what happens to all of them?), or why airport security confiscates nail scissors and tweezers shortly before business-class passengers get steel cutlery with dinner, are not meant for ordinary folk to understand.

There's a lot that's perfect (or at least pretty good) about airheads, but it's the imperfections that make them lovable. Owners of bulldogs understand this perfectly. When those imperfections become mystical – transcendental, even – why, then we're in the realm of metaphysics, and logic doesn't come into it. I can imagine the BMW engineers scratching their heads over demands to bring back airheads, when they'd just spent zillions of Deutschmarks perfecting the K Series bikes in the 1980s. They'd made a machine that did most things better than the airheads. They even had ABS, for heaven's sake. In the end, many liked the Ks, but few loved them. London dispatch riders proved that astronomical mileages on Ks were possible, even on minimal servicing and in constant diabolical weather, so reliability wasn't the problem. Irascible fans didn't care, and demanded their airheads back. BMW sighed, hurriedly brought back airheads as an interim measure, and went and designed the oilheads long-term.



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Like the difference between an old black and white TV in a favourite pub burbling away in the corner, and twenty giant colour flat-screens blaring from the ceiling, less is very often more. One glass of wine is better than ten. Harley Davidson have understood this for years (even if a full-dress Harley doesn't look or sound "less" in any way). The original choppers and bobbers were about taking extraneous junk OFF the bike, not bolting more stuff on. Same thing with café racers – in fact, talking of coffee, it's the difference between a café-au-lait in a French café, and a triple-grande-latte with marshmallows, chocolate and extra sprinkles at Starbucks.

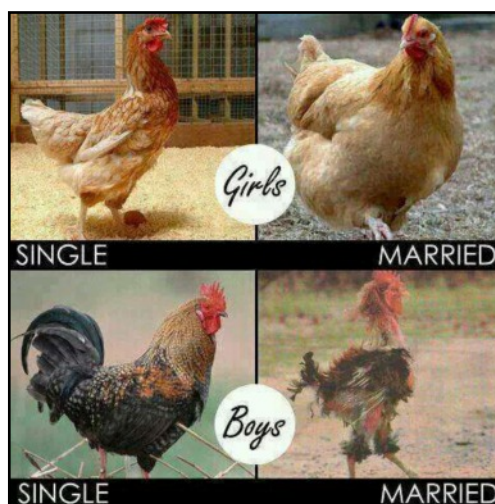
BMW have got in on the act with the retro R-Nine-T in its various guises, complete with custom options and plenty of aftermarket scrambler bits in their glossy new "Mittel-Life-Krisis" range. Don't get me wrong, the R-Nine-T is a beautiful and capable machine, but it's still a copy or imitation of something just out of sight in our collective rose-tinted past, something altogether more "real" or genuine. Something that might drip fuel on your boot on a bad day, but that can also be fixed on the side of the road, and will run until Doomsday if cared for. If you've ever ridden an old R90/6 or an R90S, you'll know what I'm talking about.

Jude Cobbing

Airhead Instrument Lighting katdash.com

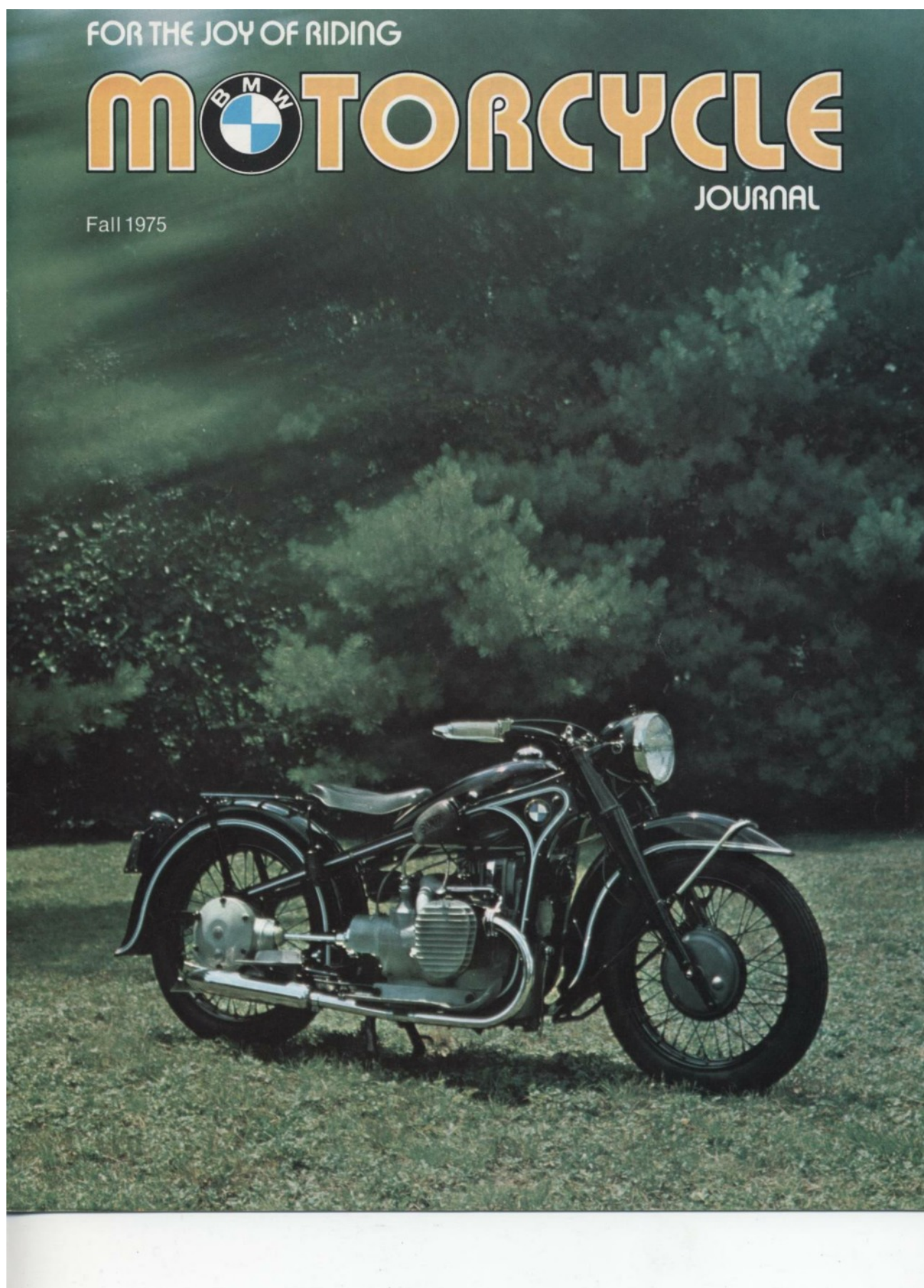


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American member Rick Griffith came across this issue of the now defunct 'For The Joy of Riding' Magazine and thought it might be of interest to other members. If you have material like this that I might be able to use then please send it on.

Our thanks to the copyright holders, the VBMWOWA, who generously allowed us to reprint it here.



For The Joy of Riding

"We have found our allies, and they are us . . ."

Pogo said the same thing about enemies, but he was right only most of the time. Sometimes we actually are our own allies—and motorcyclists need all they can get. This issue deals mostly with people, the people who make, ride, or restore BMWs. Although it is sometimes inadvertant, such people usually prove to be allies in unexpected ways. If they don't help us get the bike right, they provide us good company, or a good public image, or just a reminder that the machines we've chosen have been made well for a long time.

That bike on the cover is a 1936 model R12, owned and protected by an active member of the Vintage BMW Motorcycle Owners, Ltd. Roland Slabon happens also to be the editor of their publication which details fine points of restoration, vintage BMWs and parts for sale, and other good stuff. The restorer's art is an exacting one, and very rewarding. If interested, contact Roland at P.O. Box 132, Andover, Mass. 01810 or club president John Harper, Route 3, Box 126-E5, Anniston, Ala. 36201.

But it's not only owners of esoteric BMWs who flock together. The rest of us are doing quite handily. At the big race week in Daytona this spring an informal gathering of BMW owners took place on the morning of the big race. Several hundred machines were present, many of the riders bearing that sunburned, frost-bitten look acquired on the long ride down from the Frozen North.

And the Daytona meeting was only an aperitif for the big BMW Owners of America Rally at Branson, Missouri, in late June. Some 2,096 riders on 1,335 BMWs converged on this tiny Ozark community. It has been reported as the largest gathering of single brand motorcycles anywhere in the world, ever. Now that

is one passle of allies! It also stands for a splendid job of organization by the sponsors.

Some interesting awards were given out at the Branson bash, including Long Distance Male Rider (Pokie Midgley) who rode 2508 miles to attend, Oldest Rider (Julius Kegel) at 84 years, Long Distance Hack (Gene Shirley) 2330 miles, and Oldest BMW (Verne Myers) on a 1929 R11. The gate prize was a new 1975 R90S, won by a delighted Ms. Patricia Frost. The "Ms." contingent produced no less than 80 solo riders. And one California club amassed more than 82,000 man miles in making the trip.

Now in case you are surprised to find that so many BMWs exist, much less motor to Missouri, we have news that there are *a lot* more. Not long ago a ceremony was held at the BMW West Berlin plant to commemorate the shipping of the 1000th

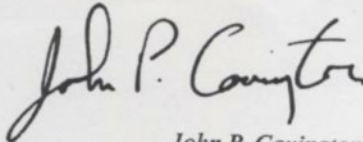
container of BMW motorcycles to the U.S.

You may have noticed another BMW media splash in the new movie *Rollerball*. That super-futuristic building with all the glass and floors hung by steel cables from a lofty tower is none other than BMW's new world headquarters building in Munich. We are assured that the building's appearance does not represent factory endorsement of the game *Rollerball*. You see, it is not played with motorcycles.

A "game" that *is* played with motorcycles is long-distance touring and you may have seen the big comparison test of touring bikes in the August issue of *Cycle* magazine. A BMW R90/6 comes up as one of two overall winners with firsts in five of ten categories, including quality of workmanship, suspension comfort, rider comfort, two-up stability, ease of maintenance, and convenience. No wonder that BMW club was good for 80,000 miles!

Because touring *is* such a preoccupation with BMW owners, Butler & Smith has long wanted to offer a first-quality touring fairing to BMW owners. Now, after considerable development effort, the new "Luftmeister" frame-mounted fairing is available at BMW dealers. It fits '74-'76 models and is available in most BMW colors. An example is shown in the touring photo on the back cover of this issue.

Many riders find the Fall season the most enjoyable of all for touring. We urge you to get out there and make contact with our allies. We hope you find that you have already found them . . .


John P. Covington



Front Cover: After
thirty-nine years,
the 1936 BMW R12
is still a jewel.

Rear Cover: Equipping
for touring
can be beautiful.

Meeting the People Who Ride BMW



Any manufacturer with a prestigious product sooner or later gets curious about his customers. At first, if the customers are lucky, he probably began by assuming they were like himself. In BMW's case, enthusiasts just decided to build a motorcycle they would like to ride. But when customers become many, a manufacturer may realize that he can learn something from them.

We learn about owners through our owner-registration and warranty programs, through club activity, through letters and publications, through a wide range of media activity, and through all the subtleties of the motorcycle grapevine.

From a statistical standpoint, based on a recent survey, about two-thirds of BMW owners are married and one-third single. About two-thirds are under 35 years old and one-third over. Two-thirds use their machines mostly for touring and one-third for daily transportation including the round-trip to work.

Numbers aren't available on occupations, incomes, education, etc.,

but an informal survey of the owner's cards alone shows an incredible variety. BMW owners don't appear to be overwhelmingly rich or poor, professionals or non-professionals. Many are doctors, lawyers, architects, pilots, engineers, musicians, poets, and chiefs. Many more are technicians, laborers, mechanics, plumbers, electricians, beauticians, and masons.

Of course, there are some celebrities, such as the Smothers brothers of TV fame; Bill Mitchell, a vice president and styling chief of General Motors; and Malcolm Forbes, adventurer, prominent political personality, and publisher of *Forbes* magazine. But prominence is not a universal attribute of the BMW rider.

In fact if any generalization is to be made, it appears that BMW owners are intelligent and involved people. They care about what they do. They often have keen interests in addition to their enthusiasm for motorcycling. But since even these generalizations fall short, we think the best way to describe the BMW rider

is to introduce a few. The following people, chosen not quite at random, just happen to have BMW ownership in common.

JOHN HERMANN of Coronado, California is a BMW rider of many colors. During the day he is a land appraiser for the California Highway Department. Evenings often find him at the San Diego Opera



John Hermann



Capt. Beverly C. Dickerson

where he sings tenor in the chorus. He and several other musicians have informally organized as the "Phantoms of the Opera." John is also a charter member of the San Diego BMW club and has been active in promoting motorcycle interests, including getting the toll lowered for bikes on the spectacular San Diego-Coronado Bay Bridge.

John Hermann is a native of Tennessee who got to know the San Diego area when serving as a lieutenant in the Navy. He discovered, he says, "It isn't necessary to sweat in the summer, nor to shiver in the winter." He is a confirmed traveler and has been to Europe many times. In 1970 he decided to try touring Europe by bike and published his observations in an article.

John bought his first BMW, an R50, in 1959, and still commutes by

bike everyday to work. His last European tour was on an R90S, which he enjoyed so much that he left the bike at a German dealer for use when he returns again this fall.

John's enthusiasms cover his social consciousness, too. He is an active leader in his church, and past-president of an organization that provides help for senior citizens. BMW owners are lucky that two of John's colors are white and blue.

BEVERLY C. DICKERSON is a pilot for Delta Airlines with a career that spans some of the brightest years in aviation history. Bev Dickerson learned to fly at age 19 while studying aeronautical engineering at Louisiana State University. But his first job with Delta was as ticket agent while he studied for his commercial license. He was soon appointed a relief pilot and actually

recalls working both the reservations phone and ticket counter by himself and then piloting a flight—all in the same day.

In 1942, Dickerson was promoted to captain, and during World War II he flew military charter flights for the Air Transport Command. In 1950, he again aided the military by flying DC-4's in the Tokyo Air Lift. For Delta he flew the first airmail flight into Alexandria, La; the inaugural Miami-San Francisco flight across the Gulf; and the inaugural Boeing 747 flight. He now flies 747's regularly.

Captain Dickerson owns a BMW R90 S and an R90/6. He is not only a touring enthusiast with long tours in the U.S. and Europe, but also a trail rider. He trails and tours in the mountains of North Georgia and in the Rockies. Besides bikes, he likes tennis, water skiing and snow skiing. He lives with his wife in Miami and has two sons and two daughters.

GRACE BUTCHER created national attention for motorcycling recently when her article on solo touring and camping appeared in both *Sports Illustrated* ("Red Tent, White Bike," Feb. 3, 1975) and the *Reader's Digest* (June 1975). It is not at all a "how-to" story but rather a brilliantly evocative portrayal of the touring experience. What startled many readers was that Ms. Butcher often travels alone.

Before motorcycling entered her life, Grace Butcher had a considerable career as a long-distance runner. She's a former U.S. record holder in both the indoor and out-



Grace Butcher



Bill and Mary Hunter

door women's half-mile. She's won several major cross-country championships as well as half-mile and two-mile championships.

She is also a prizewinner off the field, with awards for four books of poetry as well as poems in many magazines and anthologies. Besides the motorcycle articles, she has written on training techniques for track and field.

Grace Butcher is now an assistant professor of English at Kent State University. The academic schedule offers time for her writing—and her riding. In 1974 she decided to try her hand at motocross and has been racing in the 125cc-class ever since.

But touring remains her favorite, formerly on an R60, now on an R90/6. "The best," she says, "is simply sitting on my beautiful bike and riding."

BILL and MARY HUNTER, a Seattle couple in their early fifties, have done a most amazing thing: with virtually no prior riding experience they decided on short notice to buy two new BMWs and tour Europe. Mary, who proposed the idea, had never even traveled from the West Coast. But once the decision was made, they settled resolutely to the task of acquiring in a few short weeks the skills that take others many years.

Their chief benefactor was Bob Malley, a young motorcycle dealer from Tacoma, Washington, who doesn't even sell BMWs. He must have been inspired by the novelty of the situation for he volunteered to teach the couple to ride.

Learning was not entirely painless for the couple, who were more used to golf and to the comfort of deck chairs at their summer home on Camano Island. Bill works as a pressman and foreman at the *Seattle Times* and Mary is an optician. In separate minor incidents, Mary suffered a sprained finger and some cracked ribs. They took turns following each other in the car to practice in traffic.

But the day came when they breathlessly passed their licensing tests and soon were off to Europe to join Bob Beach's Motorcycle Adventure group. A few days of earholing in the Alps honed any rough edges from their riding skills. Says Mary, "We planned on selling our BMWs after the trip, but now we are hooked. *Love that BMW!*"

Restoring the Fabulous BMW R12

For many riders that which is best is that which is last: the end product of the evolutionary process, technology's most recent issue. But there are a few who appreciate a motorcycle simply because it is beautiful—regardless of age. Or because it represents an important step in the evolution of a design. Or merely for the very fact that it is old. One such man is Roland Slabon, the owner of the superbly restored BMW R12 shown on the cover of this issue and on these pages.

Thirty-two-year-old Roland, who earns his daily bread working on computer systems, has a thing about BMWs, for he now has five or six of them. The R12 is the pride of his collection, however, and he maintains it in absolutely jewel-like condition. He keeps it not as a museum oddity but as a working machine. It still delivers its original 18 horsepower, motoring Roland briskly along the roads near his home in Massachusetts.

Of course, the R12's appearance has not always been so exceptional. Like many collectors, Roland has gone to considerable effort to reconstruct the life history of his bike, which began when its serial number P6478 was stamped on at the factory in 1936.

According to Roland, the machine was first imported to the U.S. in 1936 or 1937 by then New York BMW dealer Emil Recke. In 1938 or 1939 it was purchased by a Mr. Clarence Lyle of Meredith, NH. Lyle is known to have corresponded with the factory regarding more performance for his mount.

Around 1950 Lyle handed the R12 over to his stepson Mr. Guy Stoye, who apparently used it very little. For the next 20 years it resided variously inside and outside the Stoye barn in New Hampshire. On June 8, 1970, it was stolen. Posters circulated among BMW dealers eventually alerted a mechanic at a dealership in Lewiston, Maine, who spotted the R12 when it was brought in for service. The unique and easily recognized front

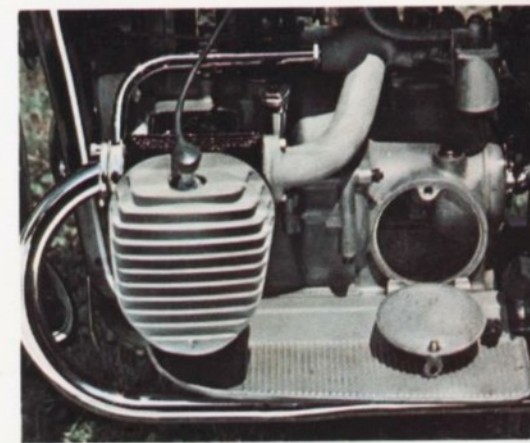


BMW collector Roland M. Slabon

fender had been removed to disguise the R12's appearance. The machine was recovered on December 18, 1970.

Almost a year later the R12 was sold in unrestored condition to antique bike enthusiast Fred Sullivan of Marblehead, Massachusetts. Fred hoped to work on the R12 but was already engaged in another challenging restoration. He sold the R12 to Louis Rizoli of Salem, Mass., who worked on it in the spring and summer of 1972. Roland Slabon purchased the bike from the Rizoli estate in 1973.

Restoring the R12 was made somewhat easier by the fact that most of its parts were still present. Use, abuse, weather and time had taken their toll, however. The machine was completely dismantled, stripped of what lacquer remained, and repainted. Plated parts were replated. A new exhaust system pat-



Hinged cover reveals toolbox.

turned on the original was fabricated of stainless steel. The missing fender was replaced by a similar fender from a machine built somewhat later in the '30s. The alloy cylinder-heads were sand-blasted and a few broken fins welded up and reshaped. A new wiring loom, patterned on the original, was fabricated and installed. The entire electric system was carefully gone over and refurbished. Rizoli regarded the restoration as a labor of love and proceeded with diligence and inspiration.

Interesting technical features abound on the now fully-restored R12. The machine is a 750cc side-valver with a single, centrally mounted carburetor. A twin-carb "touring" model producing two more horsepower (20 bhp) was also built during the same model year—as was a twin-carb overhead valve model, the R17 (33 bhp). A close look at the photos will reveal a surprising feature: preheating the intake mixture. Those chrome tubes that travel up from the exhaust collar to the intake manifold are *not* an early version of exhaust gas recirculation. They are blind tubes which merely transfer some of the heat of the exhaust gases to the intake mixture for better, more complete combustion.

With a 5.7:1 compression ratio, the R12 is remarkably easy to kick over. Ignition is by magneto. Mag and generator are combined into one unit with gear-coupled shafts, chain-driven from the camshaft. Spark-advance is manual through a lefthand twistgrip. Turning the grip forward advances the ignition. Thus the rider faces the curious situation of rolling the left grip forward for

spark advance as he rolls the right grip rearward for throttle opening.

Gearchanging on the R12 is also a bit of an adventure. The 4-speed box is handshifted by a lever on the right side of the fuel tank. One must, of course, remove one's hand from the throttle twistgrip to change gears. One's left foot rests idly on the footboard with no work to do. The transmission is a two-shaft affair, considerably more compact than the three-shaft versions of later years. This leaves more room in the "gearbox," the casting of which also includes a truly substantial toolbox.

Power continues to the rear wheel (rigidly held by BMW's pressed-metal "Star" frame) by means of the traditional driveshaft. As with most of the early models, the shaft is exposed.

Other interesting features of the R12 include its telescopic front forks (said to have been the world's first production telescopes), the "reverse" hinging of control levers, a numbered tab system inside the gas tank opening that indicates how many liters of fuel remain, and two center stands.

Riding the R12 is an altogether unique experience for anyone trained on machines with more contemporary controls and suspension. Says Roland Slabon, "One quickly learns, and forever remembers, to *never* let out the clutch after a gearchange until the right hand is firmly back on the throttle grip." But he adds that the sleek, low slung machine corners nicely and tours quietly and tirelessly. It must have been an impressive motorcycle when it was built 40 years ago. It certainly is an impressive motorcycle now.

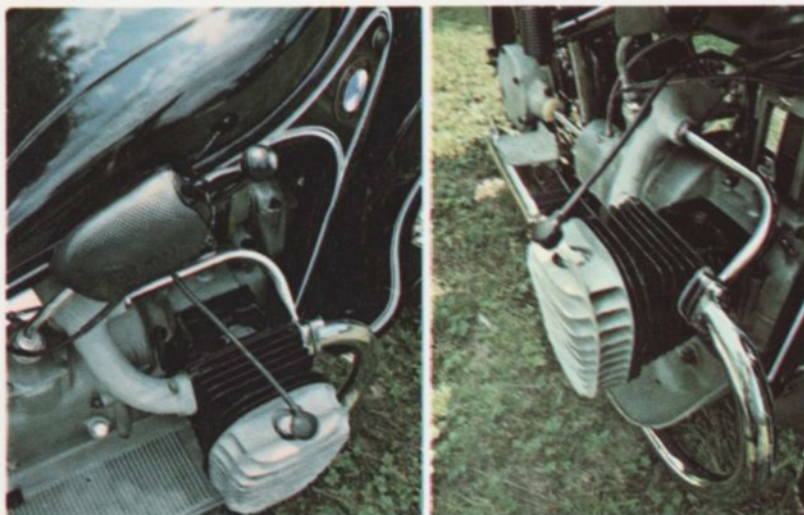
Stressing Quality Control at BMW:

More than just good engineering is required to produce motorcycles that quite customarily collect 100,000-mile awards and that can endure the rigors of New Hampshire winters unprotected for years and still be restored to mint condition. Good engineering and first-class materials are part of the job, but an equal and unseen part is rigorous quality control during the manufacture of the motorcycle. At BMW, the Quality Control Division has as much influence over the final product as any other division.

Quality control involves not so much the original designation of materials, processes and dimensions, but rather the strict determination to hold to original specifications. At BMW this concerns not only manufacturing of motorcycle parts, but also assembly, testing and after-sales reports.

Typically, new machines and their components are subjected to exhaustive dimensional, metallurgical, chemical, durability, and other tests. They are tested for conformance to literally hundreds of governmental regulations and industrial standards: from the DOT to the DIN, from the SAE to the ISO, and so forth. Whole motorcycles as well as components are exposed to the equivalent of thousands of miles of riding. And only if they pass do they go on to customers throughout the world.

The main assembly facility for BMW motorcycles, located in Berlin, has special environmentally controlled laboratories for quality-control tests. These include temperature and humidity-controlled rooms which are dust and vibration free, where highly sensitive measuring instruments will perform their best. Similar laboratories check incoming parts from suppliers, such as electrical components, brake linings, shock absorbers, filters, gaskets, etc. Tough environmental stresses to which a motorcycle might be subjected are heavily intensified. Among these are temperature variations, salt spray, aging, and mechanical and electromagnetic shock.



"H-pattern" gate for 4-speed gearbox and footboards for a firmer perch.

A Key to Manufacturing Excellence

A typical batch test, for example, concerns a shipment of forged-steel connecting rods, just in from the steel mill. Samples of the batch will be checked for strength, hardness, structural integrity, and other properties. The samples will be cut for microscopic examination and stressed-to-failure during other tests. If the batch passes, the remaining pieces receive finish machining and are assembled into motorcycles.

Owners of BMW motorcycles who service their own machines may have noticed a number of odd marks and paint dabs. These are not faulty finishing, they are, on the contrary, quality-control marks, applied to assure that a particular part or assembly passes muster. The disc-brake photo on the Winter 74-75 issue of this *Journal* shows a red dot on the end of the front axle. This indicates that the assembly has a rigorous torque specification and that the inspector has passed it.

Sometimes an inspector's mark will be two color dots such as red and green or green and yellow. Sometimes it is a stamped number or the inspector's initials. Steering-head alignment, for example, is carefully checked on an optical sighting rig. If a frame passes, the inspector stamps his initials on it in an inconspicuous place.

Some 86 inspectors at the final assembly plant check over the machines and their components before they are released for sale. The high ratio of BMW quality-control personnel to assembly workers is un-

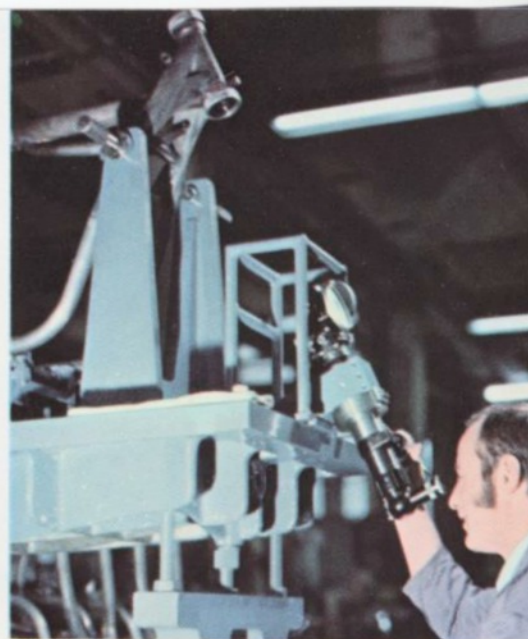
matched in the industry. In fact there is a lively spirit of competition between production managers to realize the fewest "rejects". This is only part of what keeps BMW's production standards at their recognized high quality.

Quality control on the highly-mechanized assembly lines is also mechanized, although individual inspectors are always present to oversee the operation. Most inspection parameters are displayed on giant panels. Any out-of-tolerance measurement instantly triggers an alarm. For example, some 182 drills function in the drilling and tapping of the engine casing, and the performance of each is measured and recorded. If a single drill breaks or wears out-of-tolerance, an alarm is triggered, and operation is interrupted for replacement or repair.

A typical example of subassembly inspection is BMW's "dyno hall." Here every engine with clutch and gearbox attached is cycled for at least 15 minutes on a dynamometer. Timing and carburetion are adjusted, idle and full-throttle mixtures checked, and oil pressure monitored. The assembly is run up and down through all the gears and measured for noise level, vibration, power output and torque. If it passes, it goes on to final assembly. That is, unless an inspector chooses it for occasional random teardowns for minute internal examinations.

The complete motorcycle again goes to a test bed for a final check of all functions including electrical, power, controls, wheel alignment and many other items. And then the machine is ready for the most demanding test of all: a spin on the test track by a rider who has been specially trained to detect even the most subtle problems.

Only a machine that survives this grueling qualification procedure is

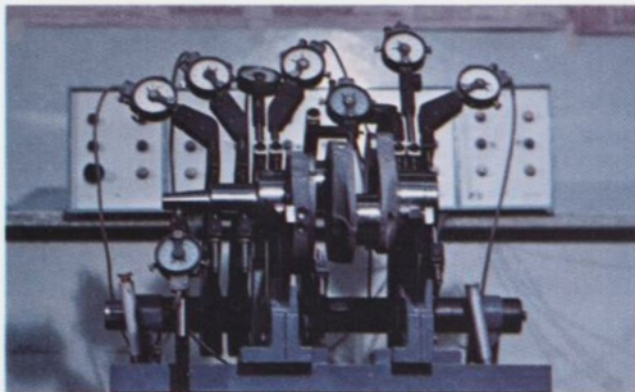


Optical sighting rig checks alignment of steering head and frame tubes.

then shipped out to customers around the world. Crating is done in such a way that no major items have to be disassembled and reassembled before the customer takes charge. Essentially adjustments remain as they were set at the factory and checked by the corps of inspectors.

An entirely separate inspection team picks machines at random as they come off the assembly line and subjects them to thousands of miles of road tests and additional strenuous laboratory procedures. In this way, potential technical problems are caught in advance, and the part design or assembly procedure can be improved.

Quality control is an expensive and serious business at BMW. The reliability and durability of BMW motorcycles are not easily come by—but are easily appreciated by the man who buys his motorcycle with one goal in mind: the joy of riding.



Crankshaft runout readings are displayed and recorded. Vast control board at rear signals any tolerance error.



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Market Place

If you have anything Airhead related that you want to sell, or if you need to place a Wanted ad then it's all free to BMWAF members. email: editor.theairhead@gmail.com.

1979 R100RT Blue/Silver, Krausers, s/s keihan silencers/exhaust, sound condition with fair original cosmetic presentation for its age, Viewings/test rides welcome

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