

# AIRMAIL

Magazine of the Airheads Beemer Club -- a non-profit association recycling 'The Legendary Motorcycles of Germany' since 1991



MOA club #214

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SIMPLY FI



Photo by Chris Brackney

"In retrospect, the purchase of this airhead has provided me with so much more than I could ever had anticipated. What started as a desire to restore an old bike has led to self-confidence in mechanical repairs, a sense of "quality", numerous friends, and a passion to continue this hobby for as long as possible." **Chris Brackney**

## UPCOMING EVENTS IN FL, MO, & CA

**AIRTECH ON CARB BURS, VOLTAGE LEAKS, POLICE REGULATORS, SOLENOID TESTING, MASTER BRAKE CYLINDER SIZES, TRANNY TEST, IMPROVING TRANNY RELIABILITY, OIL TEMPERATURES, /6 OIL FILTER INSTALLATION, & OIL COOLER LEAKS**





## MEMBERS' FORUM

This section is dependent on Member submissions. Submit your material to [Airhead1@Airheads.org](mailto:Airhead1@Airheads.org) (exclusive to **Airmail** please).

All submissions to [Airhead1@airheads.org](mailto:Airhead1@airheads.org) are acknowledged with a return email. If you don't receive one, please resubmit to [BJanMontana@gmail.com](mailto:BJanMontana@gmail.com).

No need to be a professional writer, just jot down your story in the body of an email and I'll do the editing. Select 4 or 5 Jpeg photos (over 500Kb.), include names, and attach them to an e-mail. Please provide your membership number, city, and state with your submissions, and **put the name of the event covered in the subject line.**

Many thanks to all our contributors. B. Jan -- editor  
(photo by Don Bartletti)

### KICKING TIRES

by B. Jan

As of this writing, I've just learned that the 2021 Death Valley Rendezvous has been postponed. This follows on the heels of the cancellation of the Last Chance Rendezvous. It's the first time that these events have been shut down since they started almost 30 years ago.

Like most Airheads, I really miss Rendezvous' and Tech Days. Thank Gaia A/M Garry Jackson pulled off the Salton Sea Gathering before Sacramento found out. It wouldn't have been possible two weeks later.

Had it failed, SoCal Airheads would be suffering more from RWS (Rendezvous Withdrawal Symptoms) than they are today.

One of the things I miss most about these events is kicking tires and talking bikes.

I can't turn ABC events back on again, but maybe *Airmail* can fill a gap by featuring member's bikes, sort of a virtual version of 'kicking tires'. There are several examples in this issue (many thanks contributors.)

So I'd like to put a request out to the membership. Send **Airmail** an interesting story about your current or former airhead? Inquiring Airheads want to know. It doesn't have to be about an interesting airhead, it can be a rat bike or a friend's airhead-- so long as it's an interesting story. Just write it down in a conversational style and let me do the editing, Don't sweat over it, it should be fun.

I suppose it's fair for me to do what I request from others and start with an article on my R100R.

I've reviewed the mechanical and electrical upgrades and mods in previous articles, so I'll concentrate on the story of the bike's aesthetics.

I was perfectly happy with my red '86 R80 -- upgraded to an R100, which ran like a top, looked brand new, and had clocked 145K miles.

In 1992, the dealer who sold it to me, Darrow Roundy, called to have me assess a new model, the R100R, for *Airmail*. I suspected this was a marketing plan.

Darrow was a tough old coot from the school of hard knocks. Through determination and grit, he'd risen from a disadvantaged kid to one of the wealthiest commercial landowners in San Diego.

He had a personal trainer to stay in shape, and although I had a strong handgrip from many summers of working construction, he brought me to my knees with his -- at the age of 76.

He was rude and coarse, most riders hated him. I once watched him dress-down a customer requesting warranty work in the loudest, most disrespectful manner.

He tried that on me once, but I got just as loud and rude as him. Everyone in the store was watching open-mouthed as I laid a sting of invective on him to match his own.

To my surprise, the next time I came in to the store, he put his arm around my shoulder and asked how

my R80 was running. From there we became friends and he'd always insist on sharing coffee when I showed up.

He was smart enough to hire likeable staff though, it was through one of them that I'd bought my new R80.

First thing I noticed on seeing the R100R was that it seemed to have a longer wheelbase than my R80. That didn't impress me much.

But when I sat on the bike, it fit as if it was designed for me. Perhaps the longer wheelbase allowed for more room, in any case, the ergonomics fit a guy my of my proportions like a custom suit.

After almost 30 years, it still feels that way. It's the only bike I've ever owned that wasn't subjected to ergonomic modifications. Perhaps that's one of the reasons I've owned it longer than any other motorcycle.

"Feels perfect Darrow, I like the style of it as well."

"Take it for a ride Jan?"

"You know me Darrow, if I take it for a ride, it won't be down the block. I'll disappear into the back county, through the mountains, and probably down into the desert. You'll be lucky if I get back before closing time, and there's no guaranty I'll buy it."

"Here's the keys Jan, don't hurt it?"

I got back just before closing time having put almost 400 miles on the clock. "How'd you like it?" Darrow asked.

"I loved it, with some suspension upgrades, it'll be perfect. I'll come in





tomorrow to talk about a deal.”

By the time I got home on the R80, I'd decided I needed a new bike. Lady Di and I had enjoyed the R80, but it was time to move on.

The next day, Darrow gave me a great deal, better than I expected on a brand new model. I usually buy hold-over bikes from the previous year, but Darrow gave me so much for my R80 trade-in -- perhaps because there wasn't a scratch on it -- I had to buy.

As an aside, a tourist from Germany ended up buying my R80 to ride through Alaska. Six months later, I saw it back in the shop beat to shit. Five years of loving attention were negated in 3 months.

Lady Di found the R100R more comfortable than the R80 as it had more room, a smoother ride, and she felt more relaxed sport-riding on it. Many Airheads told me that I rode faster with her as a passenger than solo.

She once dragged her glove on the pavement as we were leading a group of Airheads down the Mighty 190. That caused a stir at the next stop.

Even with upgraded suspension, I had to remove the side stand, cylinder guards, and muffler due to road friction. It was a glorious period.

By the time we had put as many miles on it as we did on the R80, I was

tired of the bland colors. Black and gray are fine for the first decade, but then one starts to get a hankering for something different. The problem was (and is) I couldn't buy another airhead, they'd been discontinued. For me, that was the end of 35 years of buying BMWs.

I decided that if I can't have a new airhead, I'll make mine look so different, it'll seem like a new airhead.

But what colors? I'd always appreciated the conspicuity of the yellow downtubes on the Bumblebee GS models. In sunlight, they seemed brighter than the headlight. I also liked the white wheels on the red R65LS models, so I went to the powder-coater and asked for white wheels and yellow downtubes.

“I'll give you a deal if you make them both the same color” he said.

“OK fine, let's do yellow” The savings paid for some of the parts he powder-coated black.

When I got all the pieces back into the garage, my buddy Chuck dropped by. He took one look at the yellow wheels and exclaimed, “What the hell are you building, a John Deere?”

“Good idea Chuck, if you'll paint the rest of the parts green, I'll make it a John Deere.” It's nice to have skilled friends.

As Chuck was spraying the tank with green Imron, his wife commented, “Chuck, are you sure you're using the right paint. I can't see any Airhead wanting this color!”

We still chuckle over that.

Traditional John Deere tractors



Photo taken in AZ last fall by B. Jan  
 “The problem was (and is) I couldn't buy another airhead, they'd been discontinued. For me, that was the end of 35 years of buying BMWs.....I decided that if I can't have a new airhead, I'll make mine look so different, it'll seem like a new airhead.”



“Yah, it turned out to be too heavy for the job so BMW sold them to the

To tell the truth, the attention sometimes gets old. If I'm sitting in a pub or a restaurant and someone walks in asking who owns the John

He wrote back shortly afterwards, thanked me for the photo, and said his company had its hands full meeting the demand for construction equipment.



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Photo by Chris Brackney

“While perusing the Four Winds BMW forum, I came across a 1980 R100T (78K miles) with an ‘81 RT motor, Hepco and Becker bags, a Corbin seat, and a Luftmeister faring.”

Several weeks later, I received a copy of the company magazine with a full page devoted to a photo of my bike with a brief history. I still have it in the garage.

After 15 years, the finish has held up extremely well, especially for a machine that’s ridden year round. Chuck knows his paint. I look forward to touring states this summer that aren’t locked down.

school. I loved to tinker with that air-cooled engine. Unfortunately, the VW became history when I left for medical school.

The GSA is a wonderful bike with capabilities beyond my talents, but I felt overwhelmed by its complexity. Deep down, I wanted a bike I could understand and work on myself.

I got the itch to purchase an air-head. While perusing the Four Winds

BMW forum, I came across a 1980 R100T (78K miles) with an ‘81 RT motor, Hepco and Becker bags, a Corbin seat, and a Luftmeister faring.

No photos were provided, but I was intrigued, so I emailed the owner. Dr. Dave, a Professor at Duquesne University, responded with photos of the bike. He was its second owner.

He had purchased the bike from an elderly gentleman in Urbana, IL, who bought it new from Underwood’s BMW in St. Josephs, IL. He had modified it for his son, who never really took to motorcycling.

Dr. Dave bought the bike with 30K in 1991, religiously changed the fluids, had the exhaust valve seats upgraded, but was now into bicycling and had lost interest. He just wanted to find a good home for it.

When I got there, the bike looked very well maintained and void of surface rust. It had a strange ‘Studio 54ish’ speckle pattern paint job, and a large, bird-like Luftmeister fairing. Hepco hard bags adorned the top and sides – very functional in appearance, but quite bulky.

She fired up on the second attempt and purred rhythmically. While cracking open the throttle, the right

## SELF CONFIDENCE AND NEW FRIENDS

by Chris Brackney

One Fall day, while having my R1200GSA serviced at the local BMW dealership in Pittsburgh, a guy rode in on his 1978 R100RS.

We struck up a conversation. He told me he was the second owner having bought it in 1982. He rode it all over the country to various rallies. The bike had just ticked over 200k miles, and looked like new.

He was at the dealership to pick up some parts for end-of-season maintenance. He admired my new bike, but reveled in the durability and quality of his machine.

I started to think back to the 1967 VW Karmann Ghia I owned in high



Photo supplied by Chris Brackney

“Chris with motorcycle designer Hans Muth at Todd Trumbore’s 40th anniversary rally celebrating the R65LS and the R80GS.



# LATEST AIR- STORE AD

(as supplied by the Airstore Manager)





“His parting words were to read *Zen and the Art of Motorcycle Maintenance* by Robert M. Pirsig and ‘Be the Honda Guy.’”

Photo by Chris Brackney

cylinder stuttered. I noted the engine and transmission housings were devoid of any major leaks. The pushrod seals on the underside showed seepage and would need replacement.

Overall, the bike looked great given its age of 38. My gut told me this was an honest seller with a solid bike in need of little attention.

I took the machine to the BMW dealership to have their airhead guru give it the once over. John Rupert, the mechanic, squinted and smirked,

“I love these bikes”, he said, “how much does he want?” When I told him, he responded, “Wow, that’s a steal. People would pay twice that sight unseen.”

A couple of days later, after checking it out, he called to say, “Overall the bike looks good, but she’ll need about \$500 worth of work to get her road worthy.”

I offered Dr. Dave the selling price minus \$500 to cover these costs. When he accepted, I was delighted on the one hand, but on the other, how would I explain such a large this purchase without upsetting my wife?

With the help of my eldest son, I was able to unload a self-purchased 40th birthday present. It provided 60% of the purchase price. Deal done.

I had the recommended service done by John Rupert. He replaced every seal accessible while the transmission was out. He also installed new tires, and rebuilt the carbs. Once he’s done, I thought, I probably won’t need to do anything else -- yeah right!

I bought a Clymer Manual and some clicker torque wrenches. Dr. Dave had provided a bag of odds and ends including a new set of Progressive fork springs, an owner’s manual, and stuff I have no clue about. His parting words were to read *Zen and the Art of Motorcycle Maintenance* by

Robert M. Pirsig and “be the Honda Guy”.

After reading the book, Dr. Dave’s advice about being the “Honda guy” turned out to be true in some respects. Pirsig, the main character, rode a mechanically simple Honda which he was able to tune and maintain, while his riding companion, ironically, rode a BMW and preferred all maintenance to be done by a qualified mechanic. With the R1200GSA, I had been like the BMW guy, but the time had come to be self-sufficient in caring for my machine.

I joined the ABC, purchased some Chitech manuals, and the Boxer Electrics Manual from Rick at Motorrad Elektrik.

I read several articles on ethanol and its affect on these bikes, and sourced a fuel additive to protect it. In addition, I learned how to winterize the machine.

The following winter included installation of an S-fairing w/instruments, S bars, barbacks, new exhaust system, new seat, new shocks, and crash bars. I rebuilt the carbs, replaced the pushrod seals under the guidance of Oak’s *Top End Manual*, and installed all the usual bits and upgrades needed on a 38 year old airhead. In addition, I had a tank leak fixed, clutch and rear end splines replaced, and many parts powder-coated.



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Photo by Chris Brackney



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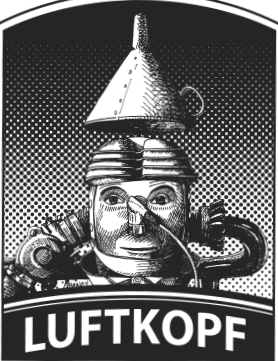
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Summer 2020, bike is mechanically sound and a pleasure to ride. It handles very well and is a solid runner, but slow in comparison to my GSA. The only thing left is cosmetics – namely a new paint job.

Several local folks recommended Phil at Roll-On-Cycles. He did an absolutely awesome job. The 1980 R100S ‘Eklusive’ decals I asked for were thick, but following 12 plus coats of clear and lots of sanding, there was no ridge (see *photo on cover -ed*).

In retrospect, the purchase of this airhead has provided me with so much more than I could ever had anticipated. What started as a desire to restore an old bike has led to self-confidence in mechanical repairs, a sense of “quality”, numerous friends, and a passion to continue this hobby for as long as possible.

## A ‘VENUS DE MILO’ CLASSIC?

by Bill Stermer

At what point does an old bike become a classic? When I bought my 1976 R75/6 in 1985, it was just a nine-year-old machine that had already rolled more than 47,000 miles. Because BMW had recently introduced its K-series, the air-cooled, opposed twins seemed outdated. 36 years later, instead of just being out-of-date, I believe my 45-year-old bike is a “classic.”

I bought it for \$1,795 through Reg Pridmore’s BMW dealership in Ventura, California, totally stock. Included with it was a set of Krauser saddlebags – the boxy, removable bags that were ubiquitous on BMWs in the 1970s.

Reg, as you may recall, earned fame in BMW lore when, in 1976, he battled Steve McLaughlin at the Daytona Motor Speedway in the very first Superbike race. Both riders were aboard a BMW R90S, and McLaughlin edged Pridmore by just a few feet at the checkered flag in a photo finish. But Reg had the last laugh when he won the U.S. Superbike championship later that year.

When I picked it up, Reg’s counterman, Jeff, mentioned that he had a used European sport fairing available in the back that looked cool, but had been



Photo by Bill Stermer

“So, is the R75/6 a classic? I checked the dictionary and found that ‘classic’ can be described as ‘of lasting significance or worth, enduring, formal, refined, restrained in style, simple, harmonious, elegant.’ Well, obviously, something that reminds others of ‘a flying tit’ has got to be considered as much a classic as the Venus de Milo!”

crashed and needed a little TLC. It had very sensual, curving, aerodynamic lines, but was scraped on one side and its bubble windshield was cracked down the middle. Jeff did not know the fairing’s brand or where it had been produced, but I liked the style and the price was reasonable, so I bought it.

Soon afterwards, I found an ad in the *MOA News* for a used Heinrich gas tank, a rare item from Germany that held eight gallons and had similar lines to the fairing. It was just \$300 in primer, so I purchased it.

To achieve the extra capacity, the Heinrich tank stretches rearward and overlaps the seat, which makes it difficult to access the tool box underneath. To compensate, Heinrich provided a tool compartment up on top, crowned by a locking oval aluminum cover.

Through the local Santa Barbara BMW Club I met “Hank,” aka Paul Hughes. He repaired the fairing and painted the other parts in BMW’s Monza Blue color with white pinstriping.

I sent the cracked windshield to *Fairing Screen Gustafson* in St. Augustine, Florida. They duplicated it in exact detail (except for the crack, of course), and returned a beautiful new version of the screen that fit perfectly; all I had to do was drill holes in the shield to affix it with nylon screws and nuts.

The rounded shape of a pair of Californian by Vitaloni mirrors (which I found in an auto parts store) complemented the fairing perfectly!

Some years later, as I was leaving Tina’s restaurant in Taft, California, I came across an airhead with a fairing identical to mine! I rushed over and asked the rider about it. He told me it was a DBV brand from the Netherlands. I was grateful for the information, and to this day have never seen another one like it.

A friend, noting the curving, sensual lines of the fairing with the central extended headlight, nicknamed it “The Flying Tit.” That draws a lot of chuckles.

In the intervening years, the odometer rolled over and now shows 15,700 miles, so add a hundred grand to that total.

My mechanical skills are not the best, and in 2012, I fell prey to the common mistake of failing to install the oil filter properly. On my way to the Death Valley Rendezvous, the oil light came on. I tried to limp back home, but within 20 miles, the motor seized and I was dead in the water.

I towed the bike to RPM Cycles (Pridmore had since sold his business) and the new owner, Gary, set

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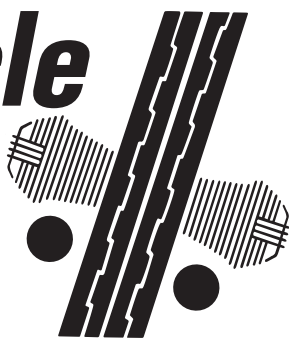
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me up with a used motor from an R80. It was a good fit.

When you've owned a bike for 30 years, you get to know it pretty well. That's why I was completely taken by surprise when, three years later, the motor died at a traffic light and refused to turn over, there was no juice.

After I had it towed home, I asked my savvy mechanic friend, Erik, to take a look. He discovered that the charging system had failed. That was just the beginning.

When I mentioned that it was also smoking on one cylinder, needed suspension work, and could stand to be prettied up a bit, I steeled myself for a procedure that we have come to call a "radical casectomy."

The floodgates opened when Erik suggested, "Hey, let's have the frame powder-coated also!"

While the motor was out of the frame, he began poring through *Airmail* for items to update and upgrade my bike. He installed a Motorrad Elektrik charging system and electronic ignition.

Meanwhile, he removed the pistons, honed the cylinders, and installed new rings. Valve seats were cleaned up, and I picked up a set of Mac mufflers. Southland Clutch refurbished the clutch.

Erik also added a module forward of the instruments that contains the fuses, a voltmeter, and two plug-ins. One was for an electric vest, and the other could charge my cell phone.

A Katdash board restored full lighting to the worn-out instruments. A 100/60-watt headlight bulb now makes the bike and its surroundings more visible.

To allow the old gal to step over bumps properly, I turned to RaceTech, which rebuilt and re-valved the fork, and also supplied a set of shocks. They are adjustable for preload and damping.

The R75/6 came with a single front disc. BMW was a pioneer in developing an anti-lock braking system (ABS) for motorcycles. I was fond of telling fellow riders that my bike has ASB, anti-stop brakes. It definitely needed

an upgrade.

Fortunately another friend, Scott, located a set of Brembo discs and calipers on the internet, which Erik mounted on my /6. The braking has noticeably improved. Scott also re-built the carbs with parts from Bing.

The work was finished in 2018, and the bike has since run well. Not only that, but with its improved brakes and acceleration, it's a greater pleasure to ride. And of course, with its glowing appearance, it gets a lot of attention on the road and at BMW events.

But it held one more surprise for me. One day in late 2020, as I was getting ready for a ride, the motor suddenly died while idling in my driveway. It would not restart. My friend Mike, who owns several airheads, lent his expertise.

We pulled the tank off, fiddled with the fuses and wiring, and the bike started...great! But when we reinstalled the big Heinrich tank, it died again and would not restart. Hmmmm.... A little digging revealed that, over time, the weight of the tank and its supply of fuel had compacted its supporting rubber damper. As a result, the tank had begun rubbing against one of the coils underneath, which caused a short.

Reconfiguring things was easy. The hard part was that, when I picked up the tank to reinstall it, I noticed a small pool of gasoline on the counter where it had been sitting. The rubbing had created a pinhole. Another friend, Steve, used a product called Quik-Steel. He applied the compound to the tank and it hardened into a permanent seal.

The leaking gas had caused the paint along the lower part of the tank to slough off, which meant it needed to be repainted again. Never a dull moment. Hey, Hank!

So, is the R75/6 a classic? I checked the dictionary and found that "classic" can be described as "of lasting significance or worth, enduring, formal, refined, restrained in style, simple, harmonious, elegant." Well, obviously, something that reminds others of 'a flying tit' has got to be considered as much a classic as the



Photo supplied by Bill Stermer

"I bought it for \$1,795 in 1985 through Reg Pridmore's RPM BMW dealership in Ventura, California, totally stock. Included with it was a set of Krauser saddlebags -- the boxy, removable bags that were ubiquitous on BMWs in the 1970s."



Venus de Milo!

Now that the bike is back on the road, I want to enjoy it for as long as I am able.

Remember how, back in 2003, BMW celebrated its 80th anniversary with a gala rally event in Germany, and another near Lake Tahoe in the U.S.? The company was commemorating the advent of its first machine, the R32, and I was happy to attend the U.S. event that year.

In 2023, I expect that BMW will likewise sponsor centennial celebrations both in Europe and the U.S. in honor of its 100th year of making motorcycles. It's on my bucket list to attend the U.S. event, wherever it may be, and to ride there on my 1976 R75/6. Coincidentally, I'll be 76.

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Photo supplied by Greg Frazier

"Foolishly, I came out of retirement for an AMA race in 1974 with a new R90S at Pocono International Raceway. At the start, I was so amped I lofted the front wheel 2-3 feet off the ground...."

#### THE GREED FOR SPEED

By Greg Frazier #777

From 1971 through 1973, my greed for speed found me road racing a 1970 R75/5 on race tracks from Toronto, Canada to Daytona Beach, Florida.

During that three year period, the goal was to win races, which I did. I had solo wins in the Street and Open Production Classes. Retirement came in 1973 after winning a five hour Endurance Race with fellow racer Justus Taylor at Danville International Raceway.

Foolishly, I came out of retirement for an AMA race in 1974 with a new R90S at Pocono International Raceway. At the start, I was so amped I lofted the front wheel 2-3 feet off the ground and went into turn #1 in first place.

Approaching turn #3, the front tire washed out, me flipping and flopping into turn # 3 while watching the R90S doing the same. The vision of the gas tank being launched 30-40 feet in the air still thrills me -- in a painful sort of way.

I learned that the stopping power of double disc brakes requires a different riding style than the lean-and-mean technique I'd used on the lighter R75/5.

Jonesing for the risk of road racing adventures again in the '90s, I returned to club racing in CO with the Mountain Racing Association.



Photo supplied by Greg Frazier

"This provided four advantages. It was more fun to get there, parking in the pits was much easier, I had a rolling set of spare parts if I needed them, and the combo entertained everyone at the track.



Again, foolishly thinking I could simply wipe the dust off my racing leathers and my upgraded 1970 R75/5, I came out of racing retirement. The memory of a gas tank flying 30-40 feet in the air inspired a new MO: have some fun, put on a good show, and finish intact.

Rather than haul the racebike to the track with a truck/trailer combination, I took the bucket off my 1970 R75/5 sidecar outfit and replaced it with a steel rail upon which to strap down the race machine.

This provided four advantages. It was more fun to get there, parking in the pits was much easier, I had a rolling set of spare parts, and the combo entertained everyone at the track.

I was an avid motorcyclist, using the R75/5 as my daily runner. It brought home the groceries and the mail through rain, snow, heat, or cold throughout the 1990s.

That inclement weather experience paid off when it rained on race day. A wet track has long been known as the "great equalizer" to racers, when riding skills trump horsepower and suspension superiority.

The other racers in the 750 cc Street Class were not prepared for the slippery corners and blurred vision. My humble goal to 'finish and put on a good show' resulted in taking home the first place trophy.

But with age came wisdom..... to a degree. I decided that the soft life of the academic/corporate world had slowed me and it was time to retire permanently from the racing scene.

So I sought new motorcycle thrills by circling the globe a few times.

A recent limited collector's print edition of my thoughts on motorcycle adventurism is available at: <http://bit.ly/2UPEMaQ>.

Also, "Frazier Shrugged", Greg's latest book on the subject of global motorcycle travel, is available for \$25 at

<https://store.soundrider.com/collections/tips-tricks/products/adventure-motorcyclists-frazier-shrugged>

-ed

## /5 OBSESSION

by Ted Holtaway

Like many, I started riding as a teenager in the woods and fields around my house on a Honda S90 that I picked up cheap. Once the ink on my drivers license dried, I quickly moved through a succession of Hondas: a 160 Dream, 175, 305SS, then a 450 Black Bomber.

In the summer 1976, while in college, I was offered the opportunity to work "off the books" as a laborer on a house construction project. The payment was a black, low-mileage 1971 BMW SWB R60/5. While this did not help my cash flow, I could not pass up the opportunity. I rode the bike year-round during college in NJ.

After college, it followed my new bride and me to Connecticut before we moved to CA. The bike served me faithfully up till 1996. By then, it was an old motorcycle with ~80,000 miles.

As a result of an overseas assignment, I decided to sell it, a decision I quickly regretted. Shortly afterwards, I was back in the USA with two young children and no motorcycle.

So in November of 2001, I picked up a brand new 2002 R1150RT. It was a great motorcycle that I commuted on every day from 2002 until 2014, accumulating ~90,000 miles. Though the 1150RT was a great bike on the freeway, I missed the simplicity and light weight of the /5. So I began a search.

I found 'Monza Blue' in Ohio, an early 1972 R75/5 with a short wheel base (SWB) and a claimed 18,000 miles. It did not have original paint and the /6 side covers weren't not stock, but I prefer their appearance to the stock chrome panels. Today, it looks pretty much as it did when I bought it.

I had to helicoil most of the oil pan bolts, and the carburetors gave me fits for several months, but it is fully sorted now and pulls quite well.

Shortly after 'Monza Blue' arrived, a black 1973 long wheel base (LWB) R75/5 with ~75,000 miles popped up locally. It was a one owner, original paint bike, so I grabbed it with the plan to convert it to sidecar duty (remember the two kids?).

After a fair amount of work (timing chain, top end reseat, carb



Photo supplied by Ted Holtaway

"I found 'Monza Blue', an early 1972 R75/5 SWB in Ohio in 2007 with a claimed 18,000 miles. The bike was pretty much as it sits today."





Photo by Ted Holtaway  
 “Shortly after the Monza blue arrived, a Black 1973 LWB R75/5 with ~75,000 miles, popped up locally. It was an original owner, original paint bike, so I grabbed it with the plan to convert it to sidecar duty (remember the two kids?).”

rebuild, clutch, swap the final drive (for a better sidecar ratio), it was ready to have a Ural sidecar fitted using a DMC bolt up conversion.

This should have scratched my /5 itch, but shortly afterwards, a 1975 silver LWB R75/5 with ~50,000 miles popped up on Craigslist. I was on the owner's doorstep within hours.

Turns out he had been part-owner of a BMW shop in Colorado, retired, and moved to CA. He was white lining when a car pulled in front of him and he T-boned it at slow speed. He decided the roads of San Diego were too busy and he was getting to old, so he stopped riding.

The forks were bent but all else looked good. He had service records going back many years. The bike had been repainted but it looked correct. I sourced a triple tree, new fork tubes, and rebuilt the front end. It has been a reliable bike requiring only regular maintenance and a few minor repairs.

So the /5 trifecta is complete. SWB, LWB, and a sidecar rig -- a bike for every occasion.

Both solo bikes do a fine job on the back roads of the San Diego

Mountains but the SWB feels a bit more nimble.

I currently have low (Euro) bars

on the sidecar rig (where I need leverage) and high (US) bars on the SWB. I guess it would make sense to swap them but I haven't gotten around to it.

People ask why I am so fixated on /5s. I love the early airheads and also have a 1960 R69 in the stable.

But buying used /2's is pretty risky. Unless you really trust the seller, you should plan on slinger maintenance. Being a built up crank with roller bearings, that is a bit of a challenge for the home shop.

Unlike the /2s, the /5 offers a pressurized & filtered oil system, plain big end bearings, forged crank, 12 volt electrics, electric start, and robust reliability that can be trusted for many miles with simple oil changes.

BMW identified the need for a total update to their product line in the early 60's and spent years developing the /5. I feel that the /5 is the engineer's ideal, and being an engineer, I identify with that. Also, I prefer the look of the /5 headlight shell over the



Photo by Ted Holtaway  
 “This should have scratched my /5 itch, but then a 1975 Silver LWB R75/5 with ~50,000 miles popped up on Craigslist. I was on the owner's doorstep within hours.” This shot was taken in the Black Hills.



Japanese looking /6 instrument pod.

Shortly after the /5 was introduced, EPA regulations started rolling in. I don't want to deal with deformed valve seats and \$2000 O-rings (what is the inflation adjusted value of that O-ring anyway?). With later model airheads, you have to wonder whether your 5 speed tranny has the circlip mod? The extra power of a 1000 CC may feel good, but the 4000 RPM buzz does not. Call me a Luddite, but I prefer my /5s.

Writing this article has stirred a feeling deep inside. I wonder if there is another /5 lurking around in need of my time and attention?

## JUST 'THE THING'

by Scott Hilbert #11741

As a firm believer in recycling, I had the opportunity several years ago to put my convictions to the test.

A lowly 1975 R90, which had been left for dead, would provide the challenge. Some bikes are trailer queens, some daily riders, this one was just plain awful. My wife called it "The Thing."

The seller's story behind the bike is that it had spent a decade parked outside, uncovered, unloved, and it looked like it. Originally, he took it as payment for a job. Now he needed cash and just wanted to sell.

To my amazement, it started, rolled under its own power, and sort-of stopped. Later inspection revealed that slowing the bike was accomplished by almost flat tires and a rusty front disk more than the brake pads.

The asking price was \$1300. I thought, what the heck, it runs, and that is where the adventure began.

Several years prior, when I bought my first airhead, a rider/mechanic/friend gave me some advice.

"There are no cheap airheads. You either pay up front for one properly maintained, or you pay later to get it working right." This bike turned out to be a machine of the latter type.

I've had to go through nearly the entire bike over the past seven years



Photo by Scott Hilbert  
"Shortly after the Monza blue arrived, a Black 1973 LWB R75/5 with ~75,000 miles popped up locally. It was an original owner, original paint bike, so I grabbed it with the plan to convert it to sidecar duty (remember the two kids?)."

as funds and time have allowed. The abbreviated list is follows:

1. Forks - unsalvageable, had to find and rebuild forks from donor bike. \$\$\$
2. Carbs - managed to rebuild them. \$
3. Heads - off to Ted Porter for rebuild. \$\$\$
4. Tranny - was a barely shifting 4-speed off a /5. Had to find a donor 5 speed and get it rebuilt. \$\$\$
6. Clutch - surprise! It worked!
7. Cylinders - already oversized and glazed. New cylinders/pistons. \$\$\$
8. Exhaust - replaced with less rusty exhaust. \$
9. Brakes - what brakes? Long learning curve, came to hate /6 brakes. \$\$.

The list goes on.

Will I ever paint it? Probably not. It's current appearance is consistent with its history.

This bike will never be pretty. It turns heads but probably for the wrong reason.

However, the reward for all the effort and cash is a machine that is a joy to

ride which gives me great pleasure.

For those of you in the Eastern Sierras or Great Basin, you might see it on the road or trail -- another airhead rescued from the grave.

Thanks go out to the many Nevada Airheads who have contributed their expertise to this project. Couldn't have done it without you.

Airhead therapy keeps me out of trouble. Some people pay for psychotherapy, I ride an airhead.

Why do you never see an airhead parked in front of a Psychiatrists office?

It's in the garage waiting for parts. After they arrive, the owner will be too busy installing them and too poor to pay for anything but Barley Therapy.

**WE'RE ALL WEIRD,  
JUST IN DIFFERENT WAYS**

# **LATEST AIR- MARSHAL LIST**

(as supplied by the Air-  
marshal Co-ordinator)



## Whair & When

ABC events are open to airhead riders, ABC members and their sponsored guests. Due to space limitations, only official ABC events will be posted here and THEY MUST BE ROUTED THROUGH YOUR LOCAL AIRMARSHAL. If your Airmarshal procrastinates, send the announcement to your Regional Director. Please name the event and date in the subject line! Deadline is SIX WEEKS PRIOR TO THE COVER DATE ie: June 15th for the August issue.

Always add "Whair & When" to the subject line.

**PLEASE CHECK WITH YOUR HOSTS FOR COVID CANCELLATIONS?**

### **FEBRUARY 26-27 N.E. FLORIDA TECH DAY**

Please consider attending the 15th annual FL Tech Day, a casual day of airhead tinkering and socializing, on Saturday February 27th from 9AM till late afternoon.

Location will be the home of Larry and Jeanette Meeker, 181 Riverwood Drive, Fleming Island, FL 32003. Fleming Island is south of Orange Park and north of Green Cove Springs just east of Hwy 17. Look for signs. Plenty of parking and lounging areas for your comfort.

KATDASH GROUP BUY OPPORTUNITY II.

If you missed or snoozed on last years group buy, we will again order units pre-sold and help you install them at this Tech Day. Your advance commitment will allow us to purchase in bulk to save money and support a new vendor who is supporting us -- a win/win. Savings will depend on quantity purchased.

A simple lunch, munchies and refreshments will be served. There is FRIDAY and SATURDAY night camping available.

Plenty of motels and other campgrounds within 10 miles of the location. Manuals, air, tire changing tools, wide assortment of basic tools, etc. will be available. If you need to start a project Friday, please contact Larry.

Various levels of experience will be on hand working on their own bikes and watching / helping others. If you need special tools or parts, call ahead or plan on bringing them with you. BMWJax is 5 miles away.

If you call ahead and prepay for parts at BMWJax, it may be possible to have them waiting for you at the Tech Session.

Auto parts stores and other bike shops are nearby in Orange Park and Green Cove.

This event is being run by the Florida Airheads and co-sponsored by The BMW Motorcycle Owners Association of N.E. FL (BMWNEF)

All BMW's welcome. We may also take on a few modern BMW projects.

Please let us know you are coming and if you have any questions. Contact Larry Meeker, ABC # 7058, at 904-612-6683

### **MAY 1 (MO) PLATTE VALLEY TECH DAY**

As always, we're hoping for a good crowd. Over 40 in attendance at the Fall Tech Day. We will provide breakfast, lunch and dinner on Saturday and breakfast on Sunday.

For those arriving on Friday evening, we will all chip in and order pizza. We'll also have slow smoked, melt-in-your mouth pulled pork on Saturday evening with all the trimmings.

Please let me know if you're coming so we'll have enough food.

Also, let me know if you have a special project so we'll have the necessary tools available.

Alcohol is permitted and enjoyed, but respectable behavior is expected. If you want to bring your own beverages, that's fine. I will have some, but not an abundance.

There is plenty of room for camping or there will be some room in the shop.

Please contact Mark Nelson at PCMAirhead@gmail.com or 785-806-1879. My address is: 13380 State Highway N., Platte City, MO 64079. When using a GPS, enter the address exactly as it appears above.

If you feel uneasy about covid and want to skip this session, we'll understand. If you have or had symptoms within the last couple weeks, I respectfully ask you not to attend. If you want to wear a

mask, please do so. To my knowledge, there were no Covid cases following the November 2020 Tech Day.

### **MAY 20 - 24 (CA) AIRHEADS AT THE 49'R RALLY**

The 49'r, at the Mariposa county Fairgrounds, has been a popular event with Airheads for decades, and there is always a large Airhead presence. In the mid '80's, 1500 mostly airhead riders and many vendors would show up for this event. It was a great time.

These days, more like 500 or so BMW riders show up, but it's still a great time. This event has been going on for 49 years with only 2 interruptions.

There'll be many seminars, including a talk by our own Greg Frazier #777, who'll discuss his many rides around the world. You can learn the history of some of BMW's models and how design decisions were made from Tom Cutter, one of the original BMW Service Training Instructors. RKA will present the latest in electronics for the bike. Learn your legal options after an accident from Russ Brown, and learn how to cook a 4 star meal from what you have packed in your saddlebags.

Enjoy riding the Sierra passes and Yosemite, or just sit back and relax at the Bier Garden or Airhead Central (hosted by Tom Cutter). Shop the multiple vendors, sell or buy stuff at the flea market, sample multiple food choices, enjoy the late night movies, and register for awards for solo and 2 up long distance, oldest and youngest male, and female riders.

For more information and registration go to [www.bmwncal.org](http://www.bmwncal.org).



## Airtech

For 22 years, **Oak Okleshen** was our official ABC Technical Consultant. We lost him to respiratory disease on April, 4, 2017. He was 84 years old. Fortunately, Oak left the **Airmail** editor with a huge backlog of unpublished articles which will continue to be printed in **Airtech**. All articles in **Airtech** are by Oak unless specified otherwise.

### **Oak's Tech Index (\$25) & Top End Assembly Manual (\$30)**

Oak's wife, Carol, has agreed to keep these publications available to the membership. You may reach her at 22637 Ridgeway Ave., Richton Park, IL 60471. Please include a check with your request?

ALL technical tips in **AIRMAIL** are suggestions from folks who may or may not be BMW experts. **Confirm the advisability of their ideas with your BMW dealer before trying them out.**

### **THE CARB BURR**

by Dave Elkow #4949

I'd assumed that the Bing Agency must have encountered every airhead carb problem that had ever confounded a rider, but apparently, this was a 'new one'. It might be that this is the only such problem that has ever, or will ever exist, but I thought I'd share it none-the-less.

If you have a similar problem, you may have scratched your head for years and finally given up on ever finding a solution.

For years, I have contended with an inexplicable rideability issue on my '78 R100RS. Didn't stop me from putting 40K miles on it, but I was always bothered by a very subtle unevenness in the midrange. I felt it most at steady throttle or on a gentle roll-on.

My first thoughts were a lean surge -- sometimes detectable, sometimes not. Over the years, I checked, tested, replaced, and rebuilt every possible mechanical, electrical, or carb issue.

I found I could mask the problem with a richer midrange jet, but I couldn't eliminate it.

My "seat of the pants" instinct told me it had something to do with the function of the carburetor pistons/diaphragms, but I could find no issues there.

One day I was reading some carb material in Mr. Snowbum's library.

He mentioned polishing carb pistons in response to some problem he'd encountered. Reading that made me pause and think.

Had I ever closely scrutinized the carb pistons and bore? Everything had always seemed fine, but was there something nearly undetectable lurking about?

I removed the carburetor tops and pistons, and then the diaphragms. The most careful visual inspection revealed nothing.

Then, I manually tested the action of the piston rod in the carburetor cap. This is when I discovered something.

Just sliding the piston up and down in the carb cap felt fine. However, when I applied a gentle lateral pressure, one side would bind with much more gusto than the other.

Applying a lateral force will always cause a bind, however one side was

certainly more "grabby" than the other. This was an aha moment?

A subsequent visual inspection revealed that the grabby piston did in fact have a problem. I found a small burr at the very top of the steel center shaft which fits into the piston.

I carefully dressed the top of the steel shaft to eliminate the sharp edge. After some time, I was able to get it as smooth as the shaft on the other carb.

Re-testing piston shafts in the carb top verified that the 'grabiness' was gone. I also rotated the pistons in the caps to be sure the center tubes were concentric and straight (no wobble). Convinced that all was well, I reassembled everything.

Since that procedure, I have put over 6000 miles on my RS. There has been no trace of the rideability issue that had plagued me for so long.

I have no idea how the sharp edge came to be. My theory is that when I had the carbs apart on a bench (at a school years ago), someone knocked that part onto the floor by accident creating the burr. Of course, they would have just set it back on the bench and skedaddled. Who knows. (or it *might have happened in the factory -ed.*)

I can say for sure is that if I ever rebuild carburetors in the future for myself or anyone else, I will be testing for this problem.





## VOLTAGE LEAKS

*Last month, my battery died between rides. I noticed I had an electron leak between the ground strap and the engine case.*

*With the bike switched off (and clock disconnected), my voltmeter read 12 volts and change when I should have had none. I discovered that something was passing current from the battery to ground. I pulled the diode board and found that it was fried.*

*I replaced it and installed the BMW supplemental grounding harness making sure to grind the black anodizing off the timing cover to insure a good electrical ground. The charging system is much improved.*

*I noticed however, when I performed the same leak test, that the new diode board still passed some current to ground. When the engine is hot, I'll get a reading of 8 or 9 volts. Once it cools down, the reading drops away to zero. I've found that if I heat the diode board with a hair dryer, the voltage leak returns and increases with the temperature.*

*I surmised that diodes are less effective when hot, does this explain why a small amount of current flows in the wrong direction at these times? Is this normal?*

**Solid state diodes** are prone to leakage, which is normal, and the leakage is temperature dependent as you discovered. The question is how much leakage. The voltmeter test between the ground strap and the engine case is not the best one as it does not actually indicate how much current flow there is. A milliampere current reading is more revealing. A leakage of a fraction of a milliampere to several milliamperes is normal.

This is nothing to be concerned about. A milliampere is 1/1000th of an ampere. A battery of a nominal 25 ampere rating might be parked with only 15 amps after a ride through the city. Assuming that premise, it would be dead in one hour at a 15 ampere draw, in 10 hours at a 1.5 ampere draw, in 100 hours at a .15 ampere draw, in 1000

## AIRHEAD TOOL LOAN PROGRAM

Thanks to the generosity of a few members, we have been able to establish an ABC Tool Loan Program for Tech Days. Tool rental will be free to current ABC members who sign a contract to insure return of the tools in good condition and who pay for shipping costs to and from their location. Please advise if you'd like to contribute?

For more information, contact Wyoming Airmarshal Tony Lehman at 307-754-5341 or [luthier82435@yahoo.com](mailto:luthier82435@yahoo.com)

hours at a .115 ampere draw, and in 10,000 hours at a 1 1/2 milliampere draw. But 10,000 hours is well over a year. The battery will self discharge internally much sooner than that, especially in summer. So don't worry about the leakage of a few milliamps.

On the other hand, you should know how much current is leaking as measured between the ground strap and the engine case to determine if your charging system is within normal parameters. Do not turn on any loads when performing this test as you risk damage to the milli-ampmeter. Start at the highest scale, and slowly switch downward till you determine the milliamp leakage. Several milliamps is acceptable. Oak

## POLICE REGULATOR

*My battery will barely stay charged during a ride if I'm using my heated vest and gloves, which together draw about 6 amps.*

*My local BMW parts man tells me there is a BMW voltage regulator available for police bikes which starts the alternator charging at a much lower rpm, and has a higher voltage output all the time.*

*Will that allow me to run two sets of heated gear so my wife can ride with me in cold weather?*

**I recommend you not use** the high output voltage regulator if you cruise the highway most of the time. It draws too much current without putting a charge back into the battery.

It can also boil out the battery electrolyte, and is not necessary if the battery is given enough time to charge. That's usually the problem.

There is no fix for that except time-sharing of the loads, a problem that no regulator of any kind will cor-

rect. You and your wife may wish to take turns running your electric vests so as not to overload the system.

Another solution is a high capacity alternator, which is not possible with the OEM airhead design. So a complete redesign is necessary, which some aftermarket companies provide. I don't have any experience with them however, so I can't attest to their reliability. Oak

## SOLENOID TESTING

*After doing some tests, I found that current was getting to my solenoid on the starter motor of my 1982 R100RT, but it won't engage. With the solenoid detached from the motor, I find that the piston moves only 1/4' or so when I apply electrical power. The starter motor itself operates properly when power is applied.*

*Would you please explain the proper bench test procedure and perhaps describe the theory of design?*

**The solenoid design** is a clever circuit that does two things. It avoids an extra contact to switch out the upper coil, and saves current for the main starter once the upper coil is neutralized with 12 volts at both terminals A and B. This happens the instant the copper bar meets the contacts as the solenoid engages. so the top coil only sees current for a fraction of a second.

When you tested the solenoid off the starter, you energized only the lower coil and that is why the sluggish activity. You also risk coil burnout if the solenoid does not pull in immediately. Be careful!

If you want to test the solenoid, energize both coils at once but do so only for an instant --- long enough to see of it pulls in. Extended current

on the upper coil can easily smoke it.

Your starter problem might be failure of the upper coil to receive current through the starter, in which case the starter motor itself is the problem.

You can test the starter separately by applying current directly at point B of the motor field to ground. It should spin freely --- the solenoid isn't needed for that test. Oak

## MASTER BRAKE CYLINDER SIZE

*My 1985 R80RT has double disc brakes. I found the number 13 stamped underneath the master cylinder. Since I bought the bike used, I'm not sure if that is the original cylinder. Others have told me that model should have number 14 stamped underneath. What do you think?*

**The answer took** a bit of digging. Here's what I discovered.

The brake cylinder with #14 on it was used for single disc brakes from 1985 on (BMW part number 32-72-2-310-747).

The part with #13 on it was used for double disc brakes from 1985 on (BMW part # 32-72-2-310-746).

The actual difference between the two is merely the diameter of the cylinder piston bore, one being 13 mm and the other 14 mm. The smaller piston requires more lever travel but less pressure to bring the bike to a stop.

In early 1989, BMW switched to using the 14 mm piston on double disc brake models, essentially instituting a part number change. BMW frequently does this sort of thing without explaining why. Sometimes it's done for inventory simplification.

I don't see any reason for you to change. Both parts are presently available as far as I know.

There was a variation in the 1985 models. Some of the twin disc models came with two separate brake hoses, one for each caliper, while others came with one hose and a steel crossover tube connecting the calipers. This change does not affect the master cylinder requirements. Oak

## TRANNY TEST

*My R100/7 just turned 100K miles and I just had new rings and rebuilt heads installed. It runs great.*

*What I'm wondering about is the transmission. It shift smoothly and doesn't make any strange noises. I've been very faithful with regular lube change intervals. I'm a relaxed, solo rider and cruise at 70 mph.*

*Should the tranny be inspected or rebuilt anyway?*

Usually, by 100K, the bearings will have undergone some wear regardless of how well it was treated. But it's possible that it's still in good shape.

The best way to tell is to keep an eye on the magnetic drain plug. If the metallic dust is grey and so fine it doesn't irritate your skin when you rub it between your fingers, then it is probably OK.

But if you see gray material on the magnetic plug that is more than usual, and coarse particles or metallic slivers, that is usually a sign of impending trouble.

There is a noise test we talked about in past **Airtech** pages. With the rear wheel off the ground, engine running at about 3000 RPM in 5th gear, listen to the transmission using a mechanic's stethoscope.

Making sure the transmission is hot, compare the sound of 5th gear to that of 4th gear. Listen at the top right of the tranny housing-straight forward of the drive shaft.

If a radical change in noise character is noticed (worse in 5th gear,) that's a sign that the output shaft bearing is on the way out.

The only other test is taking it apart and physically examining the bearings. In most instances, the bearings can be expected to need servicing at about the 80,000 mile mark. Some sooner, some later. Well taken care of bikes and easy going riders can stretch the longevity to over 100k miles.

Transmissions don't like being lugged in 5th gear. That seems to speed up bearing wear. Oak

## IMPROVING TRANSMISSION RELIABILITY

*I remember reading in Airmail that transmission output bearings last longer on models with the circlip on the output shaft.*

*I know someone who has had a bearing failure, and wants to install the circlip that BMW omitted from 1988 to 1992 to save a few pfennig.*

*How deep and how wide should the groove be, and where exactly should it be located?*

**Interesting question.** I dug through my parts department and found five shafts supplied with grooves from the factory. I also measured a new circlip, and compared it's dimensions to the specs in the parts microfiche. Here's the scoop.

The clip is just under 1 mm (by several thousands of an inch at the most). It appears to me that the groove in the shaft should be exactly 1 mm wide.

The inside diameter of the clip measures 15.73 mm when relaxed. The groove depth on the shafts I measured were 15.98, 16.03, 16.07, 16.08, and 16.18 mm. It seems that 16 mm is the nominal diameter of the groove.

I would make the groove 16.00 to 16.02 mm outside diameter, and would certainly not go too deep for fear of weakening the shaft.

The distance from the shaft shoulder to where the bearing sits is easily established. The bearing is exactly 17.00 mm thick. This is uniform from one bearing to another.

Cut the groove so that the edge towards the shoulder is 17.00 mm plus several thousandths of an inch (thou) so the circlip will not hang up on the bearing surface when fitted onto the shaft.

I have noticed that the factory allows some extra play at that point also, sometimes too much, which allows the bearing to move. To avoid that problem, I snug the bearing up against the circlip with a puller so that it cannot move any further and cause the very problem we are trying to avoid. On some factory shafts, I have seen the bearing move as



much as 10 thou. when seating it against the circlip.

Keep the tolerances to 17.00 mm plus about 2 thou.

The part number for the circlip is 07-11-9-934-100. It costs about \$.50. Do not use English size circlips. Oak

## OIL TEMPERATURES

*I was told by a BMW service manager that the lack of a thermostat on the later airhead oil coolers was not a problem. I thought you might be interested in my experience re: oil temperatures.*

*Around town in fall and winter, the oil temperature averages 170 - 200 degrees. On the highway at 4000 RPM, it averages 210 degrees. At 5000 RPM for a long while, it will get up to 235 degrees.*

*Cylinder head temps are usually 375 - 425 under these conditions.*

*Is this wide range of oil temperatures safe for the engine.*

**Your oil temperatures** seem normal, although you did not specify the highway speed. Road speed plays a significant part in oil temperature rise, which is most apparent at high speeds. Let me explain.

Air cooled engines cool in proportion to the square of the road speed increase, but the heat they generate is produced at a rate between the square and the cube of the road speed increase. Thus it is obvious that the faster the speed, the hotter the engine.

Oil coolers do their best work at the highest road speeds, as that is when they are subject to maximum air flow. The factory oil cooler seems to be able to hold oil temperatures to a maximum of 235 degrees F under most conditions, and that is perfectly acceptable. Oak

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## 1/8 OIL FILTER INSTALLATION

*At a rally I recently attended on my newly acquired '75 R75/6, somebody scared the hell out of me by going on about something called the \$2000 O-ring. It chilled my blood.*

*My bike came with the 3 bolt cover, gasket, and single bolt round inner cover. The hinged filter had both rubber gizmos molded in. I replaced it with same at my last change.*

*A white O-ring and metal shim were also in the box, but I couldn't find a place to install them, so I left them out. The dealer was no help.*

*Am I OK? The engine runs great and the pressure light goes off immediately, but I'm sweatin' it.*

**We've talked many times** about the \$2000 O-ring in **Airtech**, and most airhead owners should definitely be concerned about it, but not you. Your model does NOT use the large white "O" ring and metal shim. That only applies to **'77 and later**

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**models**, which were designed for use with an oil cooler system.

I'm surprised that the local BMW dealer could not, or would not, advise you properly. Either they were playing games with you for not bringing the machine in for service, or they are ignorant of the differences, in which case you are better off not letting them touch the machine.

From what you say, it appears that you have your oil filter assembly in proper order. You have the internal cover on yours with the large single bolt in the center. Then you have the outer cover with the gasket.

Just make sure that when you put the new oil filter cartridge in, that you do NOT use the small red rubber "O" rings on the front and back of the cartridge. If there is one still sitting on the oil filter stem deep inside the cannister, make sure you remove it.

Those red rubber O-rings were used with the older type oil filters that had no molded-in rubber seals on each end of the filter. You cannot use BOTH at the same time as that can cause oil flow lockup.

I hope you removed it if it was still there. Making such a mistake can be a very costly. Oak

## OIL COOLER LEAKS

*On a recent trip, my R100GS sprang a leak from its oil cooler. It covered the right side of the bike and my clothing. Fortunately, I was within 100 miles of home, and I have AAA RV coverage, which got me towed back.*

*Is this very common? Could resting my leg on the cooler have contributed to the problem? Will the engine overheat if I bypass the cooler?*

**I would avoid** resting your foot on the cooler element. They are very durable, but can warp with undue stress and cause the element fins to leak. Better to locate some aftermarket footrests.

The R100GS/R100R series were designed without an oil cooler thermostat. It was, no doubt, eliminated to appease the accountants rather than the engineers.

The thermostat allowed the cold oil to bypass the cooler element until it was hot enough to need cooling. It prevented overcooling of the engine oil.

That's safer for the cooler ele-

ment. Cold oil flows under higher pressure and friction than thinner, hotter oil, and that stresses the element more than necessary.

As a result of eliminating the cooler thermostat, BMW did have some problems with ruptured elements. Factory bulletin # 2411R (revised Oct. 1990) recommended a modification to the oil filter cover for additional relief of pressure when the oil was cold.

As for the emergency fix you suggested, you can bypass the oil cooler so long as you use fittings and braided line - not ordinary rubber tubing. Have it fabricated by a professional hydraulic repair shop and tested for a 300 PSI rating.

If you attempt to rig up something simpler with hose clamps, there is a possibility that the line may rupture and not only cover you in oil, but also trash the engine and foul the rear tire to cause a crash.

Another option is to install a thermostatic conversion. It may not be possible on the GS series if there not enough space between the engine case and the exhaust pipe for the necessary hardware. Oak



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### FOR SALE

In the last issue, I placed an ad to sell a tank bag and buy a used paralever drive shaft. Both transactions occurred within 3 weeks of the issue being shipped. Classified ads in Airmail work. B. Jan

**1976 R75/7**, 42K, original metallic orange paint, VG cond., new rear tire, new battery, new fuel petcock, new fuel lines, sport fairing, volt meter, clock. \$4,900. Dave at superdavent66@yahoo.com or call 334-347-9002 (AL)

**1983 R100RS**, 8700 miles, smoke grey, all original, ex. cond. \$9,500, Bill at 860-202-6460 (CT)

**1982 R100RS**, 51K, metallic red paint, Krauser panniers, engine resealed, new timing chain & starter, MAC exhaust, rebuilt tranny, YSS shocks & new fork springs, rebuilt carbs, EME ig., Enduralast rotor, stator, diode board, adj. regulator, \$5000. Kevin @ 570-309-7222 (PA) or aircooled-wrench@aol.com

**1973 R75/5**, 50K, all original, white, immaculate condition. \$9500 Call Bill @ 860-202-6460

**1993 R100GSPD**, red/white w/ matching seats, 105K, ex. cond., runs great, new gearbox bearings, powder coated frame, grip heaters, high and low front fender, stock hard-cases, large capacity alternator, etc. \$6500. Will consider R100RT/R100R trade. Frans at 206-303-9073 (OR) or franspoullissen@gmail.com

**1977 R100RS parts**, two 40 mm Bing carbs minus float bowls, XInt original cond. \$ 800. One 32 mm Bing carb, orig. cond. part # 64/32/3. \$200. Gas tank for 1980's R100, very good cond. original factory dark metallic blue paint w/red and white pinstripes. \$600. One pair MAC aftermarket mufflers, chrome finish, very good cond. \$200. Bill @ 760-746-0589 (CA) or sodak760@gmail.com

**1991 RT front end** w/ forks, triple clamps, dual brakes, cast wheel. Rich at rivirichnjackie2@gmail.com (AZ)

**1973 R75/5**, 50K, all original, white, immaculate cond., \$9500, Bill at 860-202-6460

**1984 R80RT** 29K red, good cond., mild cosmetic damage, BMW luggage, Reynolds backrests, Brown sidestand, Hyperlites, Stebel airhorn, turn signal alert, other extras. \$3,500 Ed at 717-

649-5251 or horacepro@aol.com. (PA) **1992 R100/GSPD, 36K**, turquoise. stock dual seat and rack w/single seat and long rack, Pelican cases with liners, Garmin Zumo GPS, new shocks, electrical and lights, ex. cond., \$8,500 (WA). Mark.Millman@outlook.com **1975 R90/6**, 80K, this is a project bike, complete including many new parts and clean, extra spares, (too many to list) \$2000. Mike at 201-407-2165 or mikemotorbike1723@yahoo.com (NY)

**1982 R65LS**, 120K, runs well., heated grips, hard bags, 400w. charging system, \$3000, Paul at sandersp@frontiernet.net (PA)

**1978 R100S**, professionally restored, 82K, original cherry/smoked paint, electronic ignition, tank relined, new brakes and cylinder, new shocks, new tires, Hoss mufflers, new Krause hard-cases, all records, stunning bike, call for photos, \$7,800 Call Herb at 770-712-0925

**1973 R60/5 LWB Special: VGC** original finish, Black Toaster Lester wheels, custom and stock parts included seats fairings lights,etc. XSpeedo/TachX are non operative,so approx 40k miles. \$4,750 Dwight @ 781 300-1621 (MA)

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