

der Vorgänger



Dave Riley: Mr. DIY

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upgrading your clutch's hydraulic system and replacing speed
or reference sensors • A dream trip to the Nurburgring



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derVorgänger

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February 2009, Volume 55, No. 2

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Cover photo by Michael Madrid: Believe it or not, this is the hood emblem of Dave Riley's 1971 911. In a future issue, Michael will explain how he shot this.



Photos by Richard Curtis

Top: New club member Kimo Lee, left, of Fairfax Station, Va., shows off the '05 Cayenne Turbo he's owned for two months to John Magistro.

Above: Lee Hamilton rolls back the targa roof of his 993 for, who else?, John Magistro.

Left: Robin Roberts of Mclean, Va., with his '04 911 at the January breakfast meeting in Virginia.

derVorgänger

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Editor, designer: Richard Curtis
6032 Makely Drive
Fairfax Station, Va. 22039
dveditor@pcapotomac.org

Contributing photographers: Michael Madrid, Sunny Reynolds, Willy Straubhaar.

Contributing writers: Kristen Brickley, Tuffy von Briesen, Gary Brindle, Sidney Butler, Andy Clements, John Eber-

hardt, Rich Franco, Karl Gelles, Tony Kelly, John Magistro, Tony Pagonis, Starla Phelps and Steve Vetter.

Advertising manager: Michael Langshaw
25099 Ingleside Road
Hollywood, Md. 20636
dvads@pcapotomac.org

Questions about display advertising rates and placement in *derVorgänger*, please contact (do not call) Advertising Manager Michael Langshaw at dvads@pcapotomac.org

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Letters to the editor are welcome but should be brief and may be edited for length. Please note if the letter or e-mail is submitted as a letter to the editor, and include a contact phone number for verification.

Editor's column

Volunteers are our life blood



Like several of dV's volunteers, Kristin Brickley doesn't own a Porsche, although, as she points out, her father is the proud owner of a '99 911. Kristin has written several cover stories for dV already. She is a recent graduate of Christopher Newport University and currently works for the Virginia Department of Rail and Public Transportation as a communications specialist. She enjoys reading, cooking, spending time

with friends and family, and lazy Sunday afternoons watching football, especially if Pittsburgh is playing. She loves a challenging crossword puzzle and is not above using a crossword puzzle dictionary. Kristin points out that she's never gotten a speeding ticket and drives a '96 Nissan Pathfinder that has seen better days. Thanks, Kristin!

More help needed: If you're looking for a great challenge in the all-volunteer magazine industry with it's great pay and benefits, and would like to gain experience in this field and be the envy of everyone, please drop me a line. We could use help in writing and editing stories, shooting photographs, proofreading and production. Some previous experience in desktop publishing would be a big plus, but not absolutely necessary as I'm willing to teach.

Richard Curtis, editor
dveditor@pcapotomac.org

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The president's page

Transitions

Have you wondered what makes Potomac run? Potomac is either largest or second largest region in the Porsche Club of America with over 2,000 members. Everything we do is run and coordinated by volunteers. This is the same for PCA, with over 57,000 members nationwide. The only paid positions are those at the national office in Springfield, Va.

There are five volunteer positions that make up the Executive Committee including president, vice president, secretary, treasurer and past president. The Executive Committee is responsible for the overall coordination of all Potomac programs.

There are 32 permanent volunteer positions that coordinate various club activities ranging from Drivers' Education to model experts. Several of these activities require additional permanent volunteer positions.

The most significant example of volunteer support is Driver's Education. DE is our largest program and in addition to the DE chair, there are seven more permanent positions critical to DE operations. The positions of chief instructor, registrar, cashier, steward, chief of tech, track registration and track coordinator make sure every facet of the DE program operates safely and efficiently. In addition to these volunteer positions, there are usually 10–15 volunteers who help with track registration, tech and pit out.

Another demanding volunteer activity is Club Race. Potomac has one of the longest-running club races in PCA. Except for the CR chairs, CR doesn't require the same long-term commitment during the year as a DE. However starting in late July, the pace picks up and culminates during the first week of October when over 70 volunteers make CR a reality.

Don't sell short activities like autocross, Drive and Dine, rally and others. While not requiring the same level of support as DE and CR, these programs are active throughout the year and still require a group of dedicated volunteers.

There are several volunteer positions that influence many club activities. Our safety chair is the best example. Much of what the club does has some inherent risk. The safety chair works across the entire spectrum of activities to mitigate that risk to make our activities safe.

I know I haven't touched on all the volunteer positions, but I wanted to give you an idea of what it takes to make Potomac work. But what makes Potomac members volunteer? The common denominator is their commitment to Potomac and our members. It is also an interest in

the activity they support.

For example, the concours chair has a long history of involvement not only in Porsche type concours, but concours involving other marques. The DE chief instructors have been involved in motor sports for over 20 years. The autocross chair has a long history in racing and is a dedicated "cone banger."

Volunteering offers a unique opportunity to see how PCA runs and to meet a lot of interesting people.

Who are the volunteers? The next time you attend a Potomac event, look around and chances are you will see a volunteer. Most have from 5–10 years experience with Potomac. Some of them, such as our Historian George Whitmore, and Fred and Starla Phelps (DE steward/Club Race chair), have supported Potomac for more than 20 years. Most have full-time jobs, some are retired and some are stay-at-home parents. Their commitment is what they have in common.

Volunteering can be a complex and time consuming commitment. It often requires juggling your commitment to Potomac with work, family and other outside interests. When I receive questions from members interested in volunteering, the first two questions I ask are how much time can you commit and what are your interests.

One of the more significant challenges facing Potomac will be identifying members who can gradually increase their level of commitment to include permanent positions. We have to continue to do this, as our volunteer pool constantly needs renewing.

Has this been a subtle plea for volunteers? Not really. It was just an opportunity to provide some information about how Potomac functions. But if all of this has piqued your interest about what makes Potomac tick, then perhaps you will consider supporting the club. I remember my first effort to volunteer. I went up to Bob Novas, DE registrar at the time and said I wanted to help. The reason I did this was to become more familiar with the club and meet more people in the club. As luck would have it, Dirk Dekker, then Club Race chair was standing nearby and the next thing I know I'm helping out with Club Race. One thing led to another and here I am.

And volunteering provided exactly what I wanted. A chance to meet many people in Potomac and other regions who share common interests. And a chance to make a contribution to our Club in a small way. Many of them have become good friends.



Photo by Richard Curtis

**Potomac club president
Tuffy von Briesen**

New members, anniversaries

February 2009 anniversaries

35 year

David S. Jernigan &
Patricia Jernigan

30 year

W. K. Chang &
Elizabeth Chang
Howard Leikin &
Terry C. Pellmar
Rasim S. Tugberk &
Suzan Tugberk

25 year

Ralph Marks
Ronald O. Reed

15 year

Warner Reid

10 year

John J. Bailey &
Barbara Bailey
Jay Jessup &
Karen Jessup

Jonathan Jones &
Alice Jones
James S. Panagis &
Therese B. Panagis
Glenn D. Sontheimer &
Renee Sontheimer

5 year

Ernesto H. Agbayani &
Marie Gale Agbayani
John Bordlemay &
Dorothy Bordlemay
Doug Compton &
Theresa Compton
Russell Eschbacher &
Mimi Eschbacher
Reggie W. Forster &
Ila Griffith-Forster
George P. Marquardt &
Ursula Marquardt
Neil M. McMahon
James D. Murphy &
Katie K. Murphy
Henry E. Pasley
Hugh G. Pollon &
Kathy Pollon
Shawn Roberts &

Michelle Courtney
Karl V. Wagner &
Blair V. Wagner
Mike Walker
Frank M. Volberg &
Shirley Volberg

January 2009 new members

William M. Adams &
Cabell M. Adams
Bruce S. Becker &
Sue Becker
Eduardo L. Bodmer &
Suzanne Sierra-
Bodmer
Christian H. Clerc &
Scott Driscoll
Stan Harder & Stacey
Harder
Glenn N. Havinovski
Jon W. Kaufmann &
Ann Marie Kaufmann
Douglas Kober &
Gladys Kober
Jeffrey S. Kuhlman &

Karey Kuhlman
Kimo K. Lee & Noki Lee
Wayne T. Murray &
Marcia Murray
Mitchell Nydish &
Nicole Nydish
Mark S. Photiou &
Alex Photiou
Charlene Pineda
Nicole Porter
Cheryl Smart &
Alexander Pugh
Donald G. Sohn
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Helmuth Bott Archive dedicated at PCA HQ

Right: PCA Past President Preston Kelly, left, introduces Doris Bott at the dedication ceremony at PCA headquarters in Springfield, Va. on January 10. PCA President Kurt Gibson, center, was one of many PCA officers and members present for the ceremony.

Helmuth Bott is a glorified name in the history of Porsche. Starting in 1952, he was a lynch pin in the firm's engineering achievements, and from 1970 until he retired in 1988 he directed all of Porsche's engineering programs.

As announced in the July 2008 *Panorama*, Doris Bott and her family decided that the Porsche Club of America would be the home for her late husband's memorabilia, a large store of Porsche history.

On January 10, PCA held a dedication ceremony to introduce the Helmuth Bott Memorial Archive to members and the public.

In his introductory remarks, PCA Past President Preston Kelly spoke of Bott's involvement in developing Porsche's all-wheel drive, twin-turbocharged 959 model of the 911 in the early 1980s. Bott also was committed to an active Porsche motorsports program.



The event was well attended with an estimated 40-50 people participating. Light refreshments were served. Short speeches led to the ribbon-cutting ceremony that culminated in the official opening of the room housing the archive. The room contains a large map of the Weisach test track and many mementoes of Bott's career including several impressive trophies. For more information on Bott's achievements at Porsche, please see the February 1989 issue of *Panorama* for Editor Betty Jo Turner's wide-ranging interview with Bott and the July 1994 issue for her in-memoriam article.


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Let the man have the car

By Katie Boyer
for *derVorgänger*

Recently I was talking to a friend who feared that her husband was approaching his mid-life crisis.

"He's just going to get a girlfriend, I know it," she cried. "Of course he won't," I assured her. "Why would he do that?"

"He wants a new car," she said, as if the statement explained everything.

Well, the solution is simple.

Let the man have the car.

Most women I know look at the new car as if it's the fast track to a young girlfriend, plastic surgery, and divorce. I disagree with this.

Is the car a luxury? Sure. Is it completely impractical? Probably. But if you can manage to embrace the car as an ally, possibly even making your husband think the whole thing was your idea, then you've earned wife points galore.

Believe it or not, the car keeps your man out of trouble. He will love the car—yes. He will nearly make love to the car, washing it, caress-

ing it, polishing it both inside and out. He will drive it hard, be thrilled by the noises it makes. He will buy the cars baubles, bling and toys. Products the car will need are endless: wheels, tires, polish, chamois cloths, waxes, glazes.

As with an affair, some men realize the inequity of spending more money on the car than on the wife. You may find subsequently that you are treated to more dinners out, or a nice piece of jewelry, or a day at the spa. Allowing your man to assuage his guilt is a potential perk, although you shouldn't require it.

The car, like a girlfriend, may indeed lure him away from home, but you will know where he is. Car clubs are filled mostly with men, and mostly middle-aged men at that. When he goes to the track, he will stay in crappy motels and get a huge rush from driving his car fast.

At the track, men like to thump their chests discussing tire pressures and off-camber turns. This exertion of manhood is done in the absence of women and yet induces all of the chemical thrills of an affair.

With any luck, your mate may ask you to drive the car at the track, too. Then you can ex-

perience the adrenaline rush of driving fast.

Sure, you aren't going to know what the heck you're doing. Yes, this will make you feel a little bit stupid. You still might not care about torque. But it is, in my opinion, fun. Once you've tried it, you will understand why he wants to go again and again.

So, let the man have his car. When he mentions it, tell him you've been wondering what kind he would like. Suggest that he would look great behind the wheel of one that is red, or silver, or black—whatever your favorite color is. (And while doing so, imagine how great you'll look behind the wheel of the car.) Is it impractical? Yes. Will he love it? Yes. But he won't bring it to your bed, and it won't get pregnant.

• • •

Katie Boyer has been a member of PCA since 1994. Her involvement has ranged from competing in autocrosses and driving at DEs, to organizing two charity auctions, chairing the autocross and safety committees, and posing in the "Women of Rennlist" calendar that benefitted orphans. She still doesn't want to know how much she and her husband spend on tires annually.



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2009 track event schedule

By Doug Nickel
PCA Potomac track coordinator

Our 2009 schedule provides many opportunities for PCA drivers to improve their skills and enjoy the company of friends at the track, including an Instructor Clinic, two High Performance Driving Clinics (HPDCs), our Club Race/Advanced DE at Summit Point and a Driver Education schedule that includes eight DE events. All Potomac track events are on weekends including seven three-day weekend dates. Again we will be driving Summit Point's main track and Shenandoah track, Mid Ohio, Watkins Glen and Virginia International Raceway.

Highlights in the schedule:

Potomac's first DE accommodates the change to the Zone 2 VIR event date. Rather than opening our DE season at Summit Point in March, we'll be going in mid April.

Potomac has two Saturday HPDCs scheduled. The spring HPDC is in early April and the fall HPDC is in September. HPDC can be the single best day you'll have in your car, with emphasis on awareness and car control in a safely controlled environment and with an instructor in the car. HPDC also qualifies you to drive in Potomac DE events.

Our annual trek to Mid Ohio is the second weekend of May.

Our August DE event at Summit Point is again scheduled for three days. We're planning a Porsche Fest Gala with multiple events, including rally, social and an autocross.

We have again scheduled three days for the Potomac Club Race/Advanced Drivers' Education event in 2009.

Lastly, we'll be running an invitational Instructor/Advanced driving day on the Friday of our last Summit Point Raceway event.

| Event | Date | Days | Track |
|------------------------|----------------|----------|-------------------------|
| HPDC | April 4 | Saturday | Jefferson Circuit, SPR |
| Instructor clinic | April 10* | Friday | Summit Point Raceway |
| DE | April 11-12 | Sat-Sun | Summit Point Raceway |
| DE | May 8-10 | Fri-Sun | Mid Ohio |
| DE | June 6-7 | Sat-Sun | Shenandoah Circuit, SPR |
| DE | June 26-28 | Fri-Sun | Watkins Glen |
| DE | July 11-12 | Sat-Sun | Summit Point Raceway |
| DE | August 14-16 | Fri-Sun | Summit Point Raceway |
| DE | September 4-6 | Fri-Sun | Virginia Inter. Raceway |
| HPDC | September 26 | Saturday | Jefferson Circuit, SPR |
| Club race/Advanced DE | Oct. 2-4 | Fri-Sun | Summit Point Raceway |
| Instructor/Advanced DE | Oct. 30* | Friday | Summit Point Raceway |
| DE | Oct. 31-Nov. 1 | Sat-Sun | Summit Point Raceway |

* By invitation only
SPR = Summit Point Raceway HPDC = High Performance Drivers' Clinic DE=Drivers' Education
* Zone 2's VIR DE is scheduled for March 6-8, 2009
** Zone 2's VIR Club Race is scheduled for June 26-28, 2009
*** Please note that track dates are considered firm but are subject to change.

While the event schedule for 2009 is generally cast in stone or maybe carbon fiber and ceramic composite material, things may change during 2010. Our Mid Ohio date may be later in the year, we may have an event at New Jersey motor sports Park (Millville, N.J.) on either the Thunderbolt Circuit or Lightning Circuit, and we are also looking into a three-day event at High Rock Raceway, in Spencer, N.C.

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PCA Potomac 2009 calendar

(For specific details, check the Potomac website or future *der Vorgängers*)

Drivers' Education

DE and track schedule, facing page

Tech inspections

(Details in future *der Vorgängers*)

Saturday, March 28 at Tischer
Saturday, May 2 at Tischer
Saturday, May 30 at Tischer
Saturday, June 20 at Intersport
Sunday, July 5 at HBL
Saturday, Aug. 8 at Tischer
Saturday, Aug. 29 at Tischer
Sunday, Oct. 25 at ASG

Autocross Sunday, April 5 Autocross School at Summit Point "Triple Skid Pad"

Sunday, April 26: Autocross #1 at Baysox Stadium, Bowie, Md.
Sunday, May 24 Autocross #2 at Baysox
Sunday, June 21 Autocross #3 at Washington Circuit
Sunday, July 19th: Autocross #4 at Baysox
Saturday, Aug. 15th: Autocross #5 at Summit Point at Washington Circuit
Sunday, Sept. 27th: Autocross #6 at Baysox
Sunday, Oct. 18th: Autocross #7 at Baysox

Drive 'n Dine

Saturday, Feb. 7 – Weather permitting drive, leave from the Virginia breakfast site
Saturday, March 21 — Weather permitting drive, leave from the Maryland breakfast site
Saturday, April 25 — Horses & Horsepower, Charles Town Races *
Saturday/Sunday, May 16-17 — Porsches and BiWings — Zone 2 event hosted by PCA Potomac (overnight optional)
Sunday, May 31 — Club picnic, JR Lakes, Leesburg, Va.
Saturday/Sunday, June 13-14 — Fallingwater (overnight) — Zone 2 event hosted by PCA Potomac **
Saturday, July 4 — Weather permitting drive, leave from the Virginia breakfast site (see below)
Saturday, Aug. 1 — Weather permitting drive, leave from the Virginia breakfast site
Saturday, Aug. 15 — Porsche Fest Drive 'n Dine **
Saturday, Aug. 29 — Drive 'n and Dine *
Saturday, Sept. 12 — Horses & Horsepower, Charles Town (W.Va.) Races & Slots *
Saturday, Sept. 19 — Family picnic at Langshaw's
Saturday, Sept. 26 — Lovettsville (Va.) Oktoberfest (Drive 'n Dine, rally and concours) (multiple clubs)
Saturday, Oct. 2 — Fan Drive to Club Race

Saturday/Sunday, Oct. 17-18 — Virginia Gold Cup (overnight) — Zone 2 event hosted by PCA Potomac **

Saturday, Oct. 24 — Fall Foliage Run
Saturday, Nov. 7 — Weather permitting drive, leave from the Virginia breakfast site
* Registration preferred to guarantee a spot
** Registration required

Rally

Saturday, May 2 — Spring Fling Rally
Saturday, June 20 — Summer Fun Rally
Sunday, Aug. 2 — Camp Friendship Rally
Saturday, Sept. 26 — Oktoberfest Rally (multiple clubs)

Concours

Sunday, May 3 — Deutsche Marque, Nottaway Park, Vienna, Va.
Date to be announced — Porsches & BiWings, barbecue and People's Choice car show.
May 31 — PCA picnic/People's Choice car show at JR's Festival Lakes, Leesburg, Va.
Sunday, Aug. 2 — Camp Friendship Peoples Choice, Laytonsville, Md.
Saturday, Sept. 5 — Gathering of the Faithful car show, Reston (Va.) Town Center
Saturday, Sept. 26 — Oktoberfest Lovettsville (Va.) Peoples Choice (multiple clubs)

Community service

Saturday, March 28, Lifts for Charity
Saturday, July 11, Laps for Charity
Sunday, Aug. 2, Camp Friendship

Monthly breakfasts

Informal monthly breakfast meetings continue in Northern Virginia and Maryland. Members can come and go as they please, joining in at communal tables. No registration. If members decide to go for rides together after breakfast, so much the better!

The Virginia breakfast is the first Saturday of each month at Chutzpah Deli & Restaurant in Tysons Corner from 9-11:00 a.m. There is a parking lot with plenty of space for displaying your cars. A club banner will hang over the club table. Chutzpah is located at 8100 Boone Blvd., Tysons Corner, Va. 22182 behind McDonalds on Rt 7.

The Maryland breakfast is the third Saturday of each month from 11 a.m. to 1 p.m. upstairs (private room) at the Irish Inn, 6119 Tulane Ave., Glen Echo, Md. **Note the new Maryland location and time.**

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Story and photos by Garey Cooper
PCA, Orange Coast Region

It all started at the Porsche Club of America, Orange Coast Region's Christmas party in December 2006. There was a silent auction, and one of the items was the Autobahn Adventures tour of Germany for 2007... hmmm, what driver never dreamed of driving the autobahn in a Porsche?

10-day visit to the Nurburgring

How far would you go to drive a car on a highway? Of course it's a nice highway but it's a highway nonetheless. All right, it is the autobahn, famed in story and legend, and it is true, there are times and areas where there is no speed limit. I thought: Let's take a chance.

Fast forward to September 2007 and we are on a jet to Germany, that would be Stuttgart, home of the flat six and the driving passion that is Porsche. In Stuttgart, you not only have Porsche but Mercedes-Benz.

Our first stop was at the Kempinski Hotel Neu-Isenburg in Frankfurt. Here we were greeted by our hosts for the trip, Mark and Tina Trewartha of Autobahn Adven-

tures.

In the most exciting preamble, in the parking lot was a shiny row of Porsches. Imagine a kid of 12 walking into a candy shop and being told, "take one, any one" and, well, you get the idea. Escorted by Mark and Tina we each had to choose our new 911 for the next 10 days. Just like Henry Ford said, "take any color you want so long as it's black." In fact, they were all black. We selected a Carrera 4S that was, you guessed it, black!

Our Porsche was outfitted with all the options you could want including a navigation system. Programmed in English, it became our guide to every nook and cranny of Germany and Switzerland that we visited. And, boy, did we visit some amazing places.

The autobahn system was the inspiration for the U.S. Interstate system and was a national highway system that in early conception was meant to mobilize troops to one frontier or another. Only the Romans were better road builders; they got it and so did the Germans in the first half of the 20th century.

While gasoline is expensive in Germany, the taxes go for the infrastructure, and, sad to say, almost any German



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road is better than its U.S. counterpart. Smoother, better marked and better engineered. Their allure to the U.S.-based driver is the open areas that have virtually no speed limits. We'll give you a moment to let this "no-speed-limits" remark sink in ... Yup, it means put the pedal to the metal and go till she won't go no more.

There is a distinctive road sign that signals it's time to let the petroleum byproducts loose and fly, and that's what drivers do. You'll see station wagons at 250+ kilometers per hour (155 mph) with kids doing coloring books in the back.

At the same time you might think you're flying when suddenly in your rear view mirror a Renault wants by you! My advice is to move right and let them by. They know the roads and you don't; don't let your "macho" get the better of you.

At high speeds, really high speeds, things are different. Be aware and take care is my best advice; work up to the extremely high speeds, and be respectful of local knowledge. A fender bender at 155 mph has a whole new meaning. By the way, I was just kidding about the Renault; none of them passed me!

Nurburgring: The green hell

The Dorint Novotel Am Nurburgring (did I mention that all our hotels were five star?) was our next stop. You can't get closer to car-guy heaven. The hotel rooms open right upon the new 'Ring, and I awoke to the sounds of cars squealing their tires right under our balcony.

In the distance, one could see the fabled North Ring; built in the 1920s and the playground of Nuovolari, Rose-



Top left: The author at the Nurburgring race track in Germany. Anyone with a valid driver's license and a vehicle and who is willing to pay a per-lap fee, can drive on the famed track.

myer, Schumacher, Stewart, Clark, etc.

The best part of the trip was the chance to dip a toe into these same waters. We were set up for one afternoon at the Nurburgring, not in our Porsches (they do have insurance rules in Germany) but in modified BMWs rented from a local race-car-hire company.

I had opted to select the BMW 1.8 liter race-prepared car for the day. There were other bigger cars available, but this one had the five-point harness, was stripped and

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road-race prepared. She was all momentum, maybe 180 hp tops, but what a flying shingle. We got her just over 150 kph (93 mph) on the straight, pulling all the way before shutting down, but a more responsive car you wouldn't find.

The Nurburging on track days

Everyone runs whatever they brought! You will see minivans filled with families (I did), a little delivery truck with about a 25 hp motor and 1" wide tires (I did), and a full-blown modified GT-3 driven to the absolute limit (I did), and all on the same lap.

Everyone who shows up with a driver's license and the track fee can go out, which is pretty much what everyone does. There are motorcycles roaring around the place with the leather-clad riders leaned over so far you wonder how they stay on; sometimes they don't.

I expect what you would like to hear is that everybody gets along and respects each other, and accidents are rare, but that in fact would be untrue. Sadly, accidents are not rare, and most days the track is shut down as some unfortunate is airlifted to the hospital.

The Nurburging is also long, difficult to remember and is filled with blind turns. If you imagine a mountain road twisting and turning with dips and depressions, you will have the correct mental picture. Probably the most photographed turn is the Carousel. This is an almost, but not quite, 360° banked bowl that fast cars dip down into, and after traveling around the bowl are flung out with increased momentum like the marble in a roulette wheel.

Incredibly all of the turns have names (whoever had the time to go through there and name all of these, I don't

know). Some of them are self descriptive like: *flug platz*. Others are obscure and known only by the locals. During my time on the track, the 'ring certainly earned its reputation and nickname. You do have to drive with one eye in the rear-view mirror as there are incredibly quick cars mixed in with the proletariat. I shared my driving with Steve, a fellow traveler, and he and I agreed to act as spotters for one another, which worked out well.

After our day on the track, we retreated to the bar at the hotel, which had autographs filling every square inch. All of the patrons were encouraged to add their names to those who had gone before. So the walls are covered with signatures of the famous, near-famous and infamous, as well as yours truly.

After some excellent German beer we were all bragging about how fast we went. I began to make up names for corners and asking people how the others had driven them: "Say, Keith, how fast did you take *Schnigglefritz*?" Keith Verlaque of San Diego is a fellow PCA member, and a driver of note down that way. He gave me a blank stare and said: "Where's that corner?" "Oh," I replied, "two kilometers past *Bunzenbreaken*." Keith didn't recall them so I just said, "I just go flat out and hope for the best!"

So long, 'Ring

In my book, you can't stay too long at the Nurburging, but some people such as Mrs. Cooper disagree so we had to leave the next day and generally continued heading south.

Each evening the Trewartha's had scheduled stops at beautiful hotels with great gourmet dinners. Days were mostly on our own exploring local roads, or in our case,

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golf courses.

Mrs. Cooper usually travels with her suitcase, which we in the family have nicknamed the widow maker. Though she stands just an eyelash over five feet, her suitcase is a little taller than she is. As far as weight is concerned,

let's just say I've seen experienced bellmen and cab drivers turn and run upon first sighting our luggage.

My wife's first challenge was packing enough to wear with a golf bag. I am sure some physics laws were violated along the line but she did manage to accomplish her packing mission. And although my right arm is now longer than my left arm and I can tie my shoes without bending over, we managed to drag, haul and cajole all of that gear into our Carrera from stop to stop. There were a couple of problems like when I bought a pack of gum and had to take it out of the wrapper to fit it into the car, but most of the time we were fine.

To Switzerland

Part of the wonderful itinerary planned by Mark and Tina was the Alpine region of Switzerland around Lake Lucerne. To say this area is beautiful is almost an injustice; it truly is beyond that. The lake itself is spectacular enough but the backdrop over the lakes of those high mountains comes right out of central casting for everything you think should be right about Switzerland. This was one of the occasions where we had a planned daytime outing. We were scheduled to go up the Alpine passes and cross over one to come back down into Lucerne.

Armed with our navigation system, walkie-talkies and maps, our brave little group took off and believe it or not got lost. It seems that there had been some recent road construction in the area, and some of the maps had not been updated. The result was near hilarity as one by one, the cars were separated and slowly drifted out of radio range, like an episode of "Lost" (without the commercials).

finally, near the mountain top, met up with the rest of our party who had beaten us there by about half an hour!

We carried on over the pass whose views were breathtaking. It is hard to describe looking out over the mountain flank with the road one long ribbon of asphalt winding down into the valley with towns and ultimately the city of Lucerne lying far below. Not a place for the faint of heart or those who get car sick easily.

While in Lucerne, Mrs. Cooper and I had our other navigation incident. We were looking for the Lucerne golf club and had duly programmed the address into our system. It got us right to the smallest road you ever saw and said: "take the road." So, take the road we did, which went straight up the hill and grew ever narrower the farther we got.

Ultimately we began to lose confidence as I realized the only way back down was to, ah, back down. When we finally saw people pushing golf carts past us giving quizzical looks as we drove up to a tee box, we understood that some mistakes had been made. I used the tee box to get the car pointed down the hill again, shouted "fore!", and we trundled back down the hill. We drove past dazed-looking golfers where we realized the entrance road was only slightly wider than the golf path and about two feet past it! In spite of it all we still were allowed to play there.

After a wonderful 10 days, we pointed our Porsche back towards Frankfurt where we had to return the car. This hurt. Would I go again? In a heartbeat.

• • •

Contact Mark and Tina Trewartha at (714) 964-0280, or visit their website at www.autobahn-adventures.com

I ended up with one other car, that of our tour leader himself, Mark, who I figured had at least an inkling of where we were headed. He and I craftily got ourselves re-routed and

Top left: Porsche 911s await their drivers upon their arrival in Stuttgart. Drivers could select any color they wanted as long as it was black.

Top: A visit to the Porsche museum included the author attempting to hijack a Porsche 917 Can-Am car.

Above: A break from all the driving to enjoy the scenic Switzerland mountains.

Left: At the beginning of the trip, the entire contingent of the Autobahn Adventures group posed for a photo. They trip lasted 10 days and included portions on unlimited autobahns.



A garage full of fun for friends

Lots of experience, an engaging nature and a sense of humor combine to provide a wealth of Porsche knowledge and good times

A big torque wrench (for axle nuts) for a big personality. Dave Riley is known for his knowledge of Porsches and his willingness to help others. His garage is often open to fellow p-car owners to help them with their problems.

Dave "Trak Ratt" Riley is a long-time Porsche enthusiast, and a model for the do-it-yourselfers who are sprinkled throughout Potomac's membership list. He and his wife, Linda, have been involved in most of the club's activities since joining in 1995, and they continue to do so. He's seen at almost every club event from Tech to breakfast meetings to DEs, quick to lend a hand and to share his ample wisdom of all things Porsche.

What got you started in Porsches?

In 1995, Linda and I were out shopping for a father/son project car for our (then) 18-year-old son. We'd stopped at a used-car place in Arlington to look at a TR8 and rubber-bumper MGB. Over in the corner they had a beautiful, one-owner '71 911 Targa on consignment for about the same money. One test drive was enough! We took turns driving around Arlington and the car was real nice... then I did a couple of 3,500 rpm hole shots!!

That sealed the deal and we returned the next day to complete the paper work.

We now know how lucky we were as the '71 proved to be rust free and mechanically sound. At the time, I

knew next to nothing about Porsches and, of course, never even thought to get a pre-purchase inspection or even to have it put on a lift to check out the bottom.

We picked up the Targa on a Friday and participated in our first PCA event (a rally) that Sunday. Nothing ever came of the father/son project, as he opted to attend Cornell University instead of a local school.

What attracted you to your first Porsche?

Looks and a quick test drive! Porsches have always been driver cars, rewarding good drivers, while reminding others of their own limitations. Our '71 Targa is no exception and besides having the classic long-hood good looks, has ample performance and comfort. We've found that the older cars handle well stock and are relatively easy to work on once you became familiar with the marque. The Targa has remained stock with only normal maintenance and the addition of a small front sway bar. We even kept the original chrome-steel wheels.

Tell us how your wife, Linda, got interested in Porsches. Or was it she that got you into the marque?

I think it was during our first test drive of our 911. Right after a couple of "hole shots," I pulled over to the

Photos
by
Michael Madrid

side of the road, and she simply turned and, smiling, said “yep”! She quickly mastered the unusual 901 transmission shift pattern, and we both drove the car in autocrosses for several years. She’s much more detailed oriented than me so she usually navigates while I drive in rallies. She went first once we got the SC and decided to try DEs (Driver Education events). It wasn’t until she (was promoted) to the next group that I started.

She’s also supportive of what has become more than just a hobby for me. Convincing my family and even my mother to buy me tools and parts rather than the usual birthday and Christmas presents. For instance, this year my mother got me a set of different length ½” impact extensions! Linda does enjoy driving and has a nice Amethyst 964 as her daily driver and occasional DE ride. She also looks forward to me eventually completing the restoration of her ’62 T-6 356 coupe.

How long have you owned your present 911 “Das Coup”?

We’ve had our SC about 12 years. We purchased it from a guy at work who had just poured a ton of money into it only to have his wife tell him to dump it. The SC was our second Porsche and was meant to replace the ’71 Targa as our autocross and DE car. We had been looking for a suitable ’72-’73 coupe to build into an RS clone. But the SC was ready to go with all the right stuff: 3.0 liter engine with a recent reseat, a late 915 trans, 7” and 8” 16-inch Fuchs, rear flares, etc. I still occasionally autocrossed the ’71 but the SC replaced it as our daily driver and Linda’s first track car.

Can you list all the Porsches you’ve owned (or still own)?

We’ve owned a number of Porsches, and I guess having one seems to lead to getting more. Let’s see, over the years we had (note we’ve always been big fans of personalized tags):

- 1961 356 (T-5) Coupe – “RENN TUB” (sold)
- 1962 356 (T-6) Coupe – “DER TUB”
- 1965 911 Coupe – “SHORTE” (sold)
- 1970 911T Coupe – “FAUX RACR” (recycled, but still have the engine)
- 1971 911T Targa – “FLITZER”
- 1980 931 (924 Turbo) – “S KUGEL”
- 1982 911 SC Coupe – “DAS COUP”
- 1984 Carrera Targa – “BEATER”
- 1987 Carrera Targa – original “RENN MOM” (sold)
- 1992 964 Coupe – “RENN MOM”

Plus several 911s, 944s, 924S, 931 parts cars that stay around just long enough to be stripped of useful parts then off to the recycler.

1968 Sabel Mk3 Sport Racer – One of four tube-frame, mid-engine cars built by John Sabel in the ’60s and ’70s. Originally built for and campaigned by National Champion John Ames. Though originally thought to have had a 356 engine, when I got it had a modified type III VW engine. I had the car for several years but never got around to restoring it. Finally, selling it back to a happy John Ames, who bought a brand-new enclosed trailer to take it home again.

6. Do you own any non-Porsches?

Yes, ’02 Ford F-150 Super Cab truck tow vehicle – “SCHEL PEN”



’04 Ford Focus – commuter and general pedestrian people hauler – “NON PCAR”

’02 EZ open-deck car trailer – “SCHLEP2”

Are there parts on your track car that you haven’t either replaced or removed? Describe...

I’ve replaced a lot of suspension components but the engine and chassis are original. It will probably require new fenders and a driver’s door when I get it resprayed later this year. Lots of track time and a few “incidences” have taken their toll over the years. (Linda likes the horizontal tire tread marks on the driver door—I don’t know why.) I did install a full cage last year that required some additional interior mods.

Tell us about your wonderful garage.

We built our garage about six years ago. We had a contractor friend build the whole thing. The county held us to a maximum of 24’ x 24’ with 8’ walls, and because of building codes, it has a rear entrance. The design included a cathedral ceiling and a commercial double overhead door that easily accommodated a lift. Additionally, the slab is two inches thicker, and has more rebar than code requires to accommodate the commercial 9,000 lb. capacity, asymmetrical, two-post rotary lift.

Other features include: 200-amp electrical service, with 220v and several 110v outlets on each wall, hot and cold water with a deep sink, air conditioning, eight-pane windows and two rows of windows in the garage door.

The garage is fully insulated with double-pane windows, and the garage door is insulated also. We used T-111 paneling inside with plywood on the ceilings. The wood paneling is rugged and makes mounting shelves and cabinets easy. I have a small MIG welder, a plasma cutter and of course a nice 220v, 60-gallon, twin-cylinder, 150 psi air compressor.

Riley in his garage with his “Das Coop” 911 track car in the foreground. The 1982 SC Coupe has many upgrades. Below, a collection of Dave’s and Linda’s personalized plates.





“Dave Riley has owned and maintained everything from a 356 to a 964, so he has tackled just about every repair and rebuild you can think of. He is generous with his knowledge, and is always one of the first people to jump in and offer to help when someone has a mechanical issue. He provided much-needed guidance and tools when I undertook my first significant DIY projects several years ago, and since that time I have seen him assist countless others in a similar manner. And with his slightly twisted sense of humor, he is great to hang out with at Tech sessions and at the track.”

—Dave DiQuollo

I used to have a computer with internet access, but floor and countertop space is always a premium. Of course, I have a phone and intercom, too.

My only advice on garages/shops is to build as big as you can, have lots of electrical outlets and service, plenty of lighting and as much headroom as possible. Linda won't let me have a TV in the shop. She says that if I had a TV, I'd never come inside.

What do you do for a living?

Linda and I work as analysts for the U.S. Department of the Treasury. We both started working for the government the same year though at different agencies and on different coasts. We met at a project management class in D.C., and the rest, as they say, is history. We were both last-minute substitutes, so fate had a hand in it.

You mentioned once that you had been in both the Army and the Navy. Can you describe how that came about, how long you served, what you did, etc.?

I joined the Navy a few months after graduating high school in 1966. Didn't really have an idea what I wanted to do or even what options were available.

I ended up a boiler technician, learning to work and operate naval ship steam plants. When I got off active duty in 1970, I stayed in the Navy Reserves while working and attending night school at Northern Virginia Community College and later George Mason University.

I enjoyed the Navy Reserves and besides getting to visit interesting places such as Guantanamo, Grenada, Panama and others, I was briefly assigned to the battleship U.S.S. Wisconsin.

By the early 1980s I wanted to try something different so I switched from the Navy to the Army Reserves. To



Top: Dave Riley walks through some of his backyard treasures. **Above,** Linda and Dave have been active in PCA since 1995.

my recruiter, my naval engineering background easily translated to that of an Army combat engineer. This actually turned out pretty good because as a combat engineer, I got to shoot an amazing variety of weapons, drive a wide variety of off-road vehicles and blow things up!

How long a PCA member?

We joined PCA in 1995 and participated in our first event (a rally) the weekend after. PCA Potomac has the most driving events of any organization I know of in the capital area. Not just DEs but autocross, rally and many more. I do a lot of the work on our cars, but the PCA discount on parts and service from local shops and dealerships pays for our membership several times over.

You obviously like DE. Are there other aspects of

Porsche-club membership that interests you?

My wife and I recognize that PCA regions run on volunteers, so we have always tried to support the club when we can. We supported Club Race for over 10 years. Initially in Timing & Scoring (before transponders), and then as corner workers. I've also been on the DE Tech team, helped with Tech at Club Races, and Linda and I worked Timing & Scoring for autocross for several years. We even attended the SCCA Flaggers School at Summit Point (Raceway) to become certified corner workers. Linda developed the online registration for DEs, establishing the use of credit cards for payments for the first time. She still maintains the DE web site

What's your favorite track? What tracks have you driven and what do you like/dislike about them?

Our favorite track is the next one we will be driving on! Seriously, they all have their own challenges, rewards and idiosyncrasies. Watkins Glen (WG), Mid Ohio (MO) and Virginia International Raceway (VIR) are, of course, epic tracks. I remember reading about WG and VIR as a pre teen. Driving these same tracks now is indescribable.

WG has gotten more foreboding over the years with the addition of so much Armco to contain the NASCAR projectiles. But there are few tracks that can give you the same feeling as the climbing Esses or the Boot when you get them just right.

I like all of MO (except in the rain)! Hard not to, from pit out through the Bus Stop, Madness, up Thunder Alley and down the main straight. That moment of weightlessness going through Madness at speed is always a thrill.

And of course VIR with its long straights, epic corners and combinations like the Oak Tree, Hog Pen, the Snake and climbing esses. I still wish I could consistently find the fast way through T-4! Certainly going off the esses at speed or watching the tree line approaching fast after messing up in Hog Pen can be life altering experiences.

Summit Point Main, while less majestic is still a challenging track. No matter how many times I run there, I still feel I can learn more. It also has the distinction of being the only track I've actually managed to run into anything... so far.

Shenandoah Circuit (at Summit Point) will always be a must drive, a once-a-year treat. Its tight turns and comparatively short straights make for busy hands.

The new Thunderbolt and Lightning tracks at New Jersey Motorsports Park look like a lot of fast fun, too. We ran a three-day event on Thunderbolt last season with the Delaware region and had a great time.

What Porsche-related gifts did you receive for Christmas?

A gift certificate for track tires, a Tracmate data acquisition system, a quick-release for the steering wheel, and both Linda and I got Hans devices.

Can you recommend helpful and/or interesting websites and/or books for fellow Porsche owners?

Porsche 911 Red Book 1995-1999, Patrick C. Paternie

Porsche 911 SC and Porsche 911 Carrera Service Manuals, Bentley Publishers.

Porsche 911 Performance Handbook, Bruce Anderson

101 Projects for Your Porsche 911 1965-1989, Wayne Dempsey

Free online factory manuals at: <http://www.cannell.co.uk/Manuals.htm>

Anything else you'd like to add?

The Porsche Club of America and specifically the Potomac Region offer many fun and exciting events for Porsche-philes. Though we like the driving events, there is literally something for every Porsche owner in PCA.

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Safety first, then performance

Story and photos by Kerrigan Smith
for *der Vorgänger*

Whether upgrading your street car for the track, or building a dedicated track car, safety is your highest priority.

This is not a lecture or a sermon of what you have to do in order to enjoy your Porsche at an autocross or on track for a Driver's Education event. These are just some

thoughtful suggestions to share with anybody interested in a safer experience, both for themselves and for others.

It is always important to look after your own safety, true, but remember you might have others waiting for you to come home after your fun weekend. If you do not do it for yourself, at least consider some of these options for them.

I ask you to consider: As I make my car faster am I protected if something goes wrong?

Example: If you have reached the point in your driving experience where you have graduated to racing slicks on your street car, then your car needs to graduate to a higher level also. During the

early parts of the season, when ambient, tire and track temperatures are low with subsequent low grip, amateur drivers on racing slicks find themselves facing conditions that get even the most advanced pro driver quickly in trouble.

When trouble happens it is going to be over before

what actually did just happen even registers. When trouble happens is not the time you want to be thinking about how you should have had that six-point harness installed when you had the time and the money. Hence the purpose of this article is about Safety First and Be Prepared.

Anyone who has been to either an autocross or a Driver Education event has witnessed that motor sports is enjoying a resurgence as a weekend outlet for car enthusiasts. The trend seems to be more people buying cars who are willing to experience their investment at its full potential. It is encouraging to see people who are willing to challenge themselves and their car for a whole weekend and then returning home with a sense of accomplishment and a new found discipline.

Many weekend track goers have the luxury of being able to drive their car to the track, proceed right out onto the track and then use the car to get to work the next day. Simply put, this is the true definition of a Porsche. What most do not take into consideration is Porsche makes two types of cars: a street car and a race car. Both types have the same religion but attend totally different churches.

Porsche has spent massive amounts of time and dollars to make the street cars the safest automobiles on the road. If it is your choice to drive it on the track, then it should be your responsibility to take over where Porsche left off. For the casual track enthusiast, the stock car is perfectly safe with reliable performance.

Prioritize your upgrades

In upgrading your street car for track use, your first and only priority is safety. After you have taken all the necessary safety steps, then you can focus on making your car faster and more aggressive.

Making yourself safe starts with a certified helmet and fire retardant clothing including gloves and shoes. If you do not have a proper racing harness, then do not get the Hans device; it does not work with street seat belts.

For drivers who consider themselves more than just the casual weekend DE driver, a minimal, but expensive, list of highly desirable safety upgrades start with: a roll cage and padding, steel-braided brake lines with racing brake fluid, racing seats with a six- or five-point harness properly attached to the chassis, a fire suppression system, internal and external engine cut-off switches or "kill switches," a quick-release steering wheel with air bags removed and removal of the steering wheel lock.

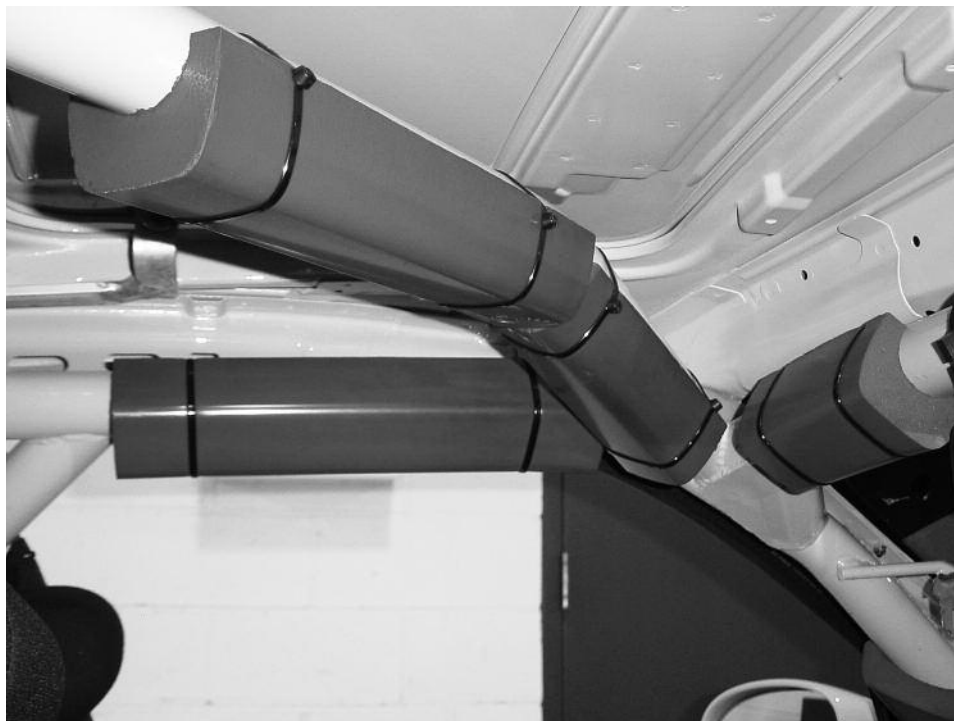
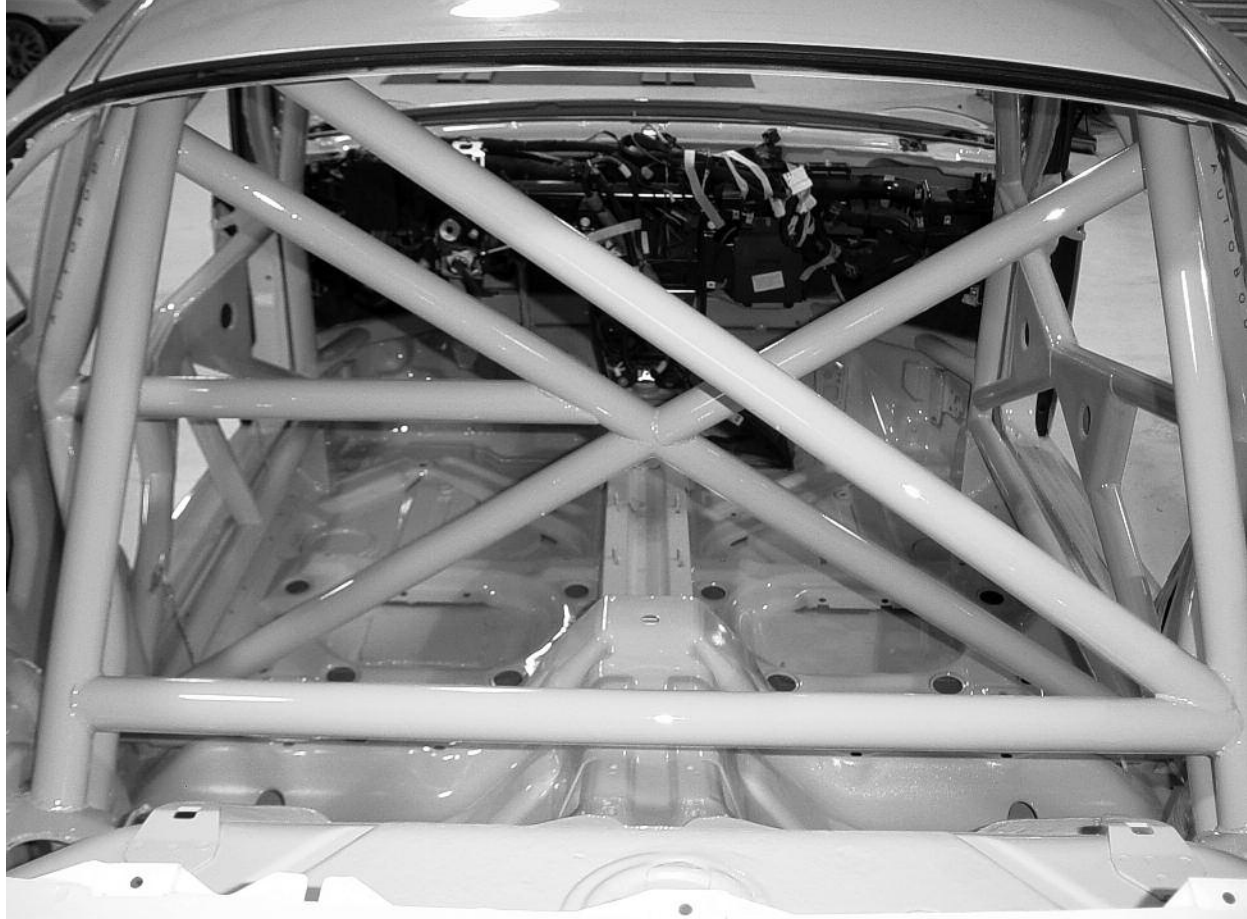
Some drivers focus on performance first. A common approach is usually reducing the weight of the car, adding more horsepower and suspension, tire and brake upgrades. These are all great and rewarding things but only after you have considered your priorities.

Roll cages

The roll cage is the axis around which the chassis rotates. A good cage should offer both side-impact protection and rollover protection. A cage designed around the chassis and installed correctly, will strengthen the chassis and offer a better handling car. To have one of those cages in your car, requires full commitment to having a track-designated car and the flexibility to climb in and out of the car.

For most car enthusiasts who want some extra protection, the bolt-in cage is an option. This is not a bad alternative if you understand the limitations and the primary function. Depending on the manufacturer, this style cage will either bolt into the front and rear seat belt mounts or the front seat belt mounts and the rear shock tower. These bolt in cages offer roll over protection at your head but no side impact protection. The style that bolts into the rear shock mounts offers added reinforcement.

Probably the best function of these cages is roof protection, a secure mounting point for your race harness and a secure spot to mount your video camera. If you were looking to offset some of the additional weight with the bolt-in cage, remove as much as you would like to before you install it. Once it is in there you will no longer be able to get to that area easily.



If you choose to place roll-bar padding on any possible contact points, get padding that is labeled "High Density" or "FIA Legal." This type of padding feels as hard as wood, but has been tested and approved for higher rates of impact with less compression and more absorption. Lastly, make sure that not just a part of it but the whole pad is flame retardant with zero flame time. If there is a fire you do not want to add the element of raining melted plastic drops to your already horrible experience.

Top: Roll cages provide both protection for the driver in case of an accident but also provide stiffness for the chassis.

Above: Roll cage padding should be labeled "High Density" or "FIA Legal."



Above: You might want to consider removing the stock steering wheel and replacing it with a racing steering wheel that fits you best. Note the special roll-bar hook for hanging the detachable wheel when exiting the car.

Above right: Fire suppression is of the highest importance. For a dedicated track car, rules call for both interior and exterior safety buttons or switches, in order to arm an onboard fire suppression system and/or cut-off switches for electrical power.

Right: Onboard fire extinguishers are mandatory for competition cars but also for cars driven in Drivers' Education events. They must be securely mounted and are subject to scrutineering.

Brakes and brake fluid

There is nothing wrong with the stock Porsche rubber brake lines exclusively found on all street cars; except they are not designed for off-track excursions, higher levels of heat or track debris. Reinforced stainless-steel brake lines and proper racing fluid are most likely the easiest and cheapest upgrade that can be easily done the next time you have your fluid flushed. Stainless-steel brake lines offer less expansion than rubber when under pressure; they are easier to inspect for damage; and they have a higher level of impact resistance and will not shear as easily as rubber. If you see surface cracks and the rubber appears dry on your stock brake lines then get them replaced. Arguments against stainless-steel brake lines are they are not impervious to abrasion from moving components like the wheel.

Make sure you get a kit specifically designed for your type of car to avoid having lines too long or too short that could cause problems in both directions. If your car does a majority of on-track time where there is a lot of grit or sand, take the extra time to put some heat-shrink tubing over the steel braid. This helps keep out small particles that get into the braid and cause internal damage when flexing.

After new brake lines have been installed, drive the car for a bit before any track use; pull the wheels off and inspect them to verify there are no rubbing issues. If you have made this modification then you need to replace the brake fluid. If your intention is to drive on the track



then replace it with high quality, DOT 4 racing fluid. Street-legal brake fluid (usually DOT 3) will do for street use but it has a low boiling point compared to DOT 4. If you have a street car on the track you are already at a disadvantage with a heavier car, possible stock pads and rotors, limited brake cooling and higher brake temperatures. One indication that you have boiled the fluid is you start to develop a long brake pedal with a longer stopping distance. If that happens, come in off the track and have someone or yourself look things over; be proactive instead of reactive.

Selecting an aftermarket seat

With the growth of this sport at a club level, seats have come a long way. There are almost too many to choose from. Basically, seat selection boils down to this, if it is a dedicated track car get an FIA-approved seat with helmet halo protection and if possible Nomex seat fabric.

If this car could still be your everyday driver, find something that is easy to slide in and out of but still keeps your lower torso securely planted. You want the seat to be snug but not so tight that you limit blood flow to your brake-pedal leg. Anyone who has thrashed around the track in a stock street seat will tell you it is exhausting. A good seat will conserve your upper-body strength and helps you to be able to loosen your grip on the steering wheel and be more relaxed.

Two "musts" you want to look for is a seat that does not fold down and that it is designed to be used with a five- or six-point harness. Compared to the price of seats, the harness is inexpensive. Every harness comes with an instruction book; read these please. There is some good information about mounting, cleaning and care. (An improperly installed seat can actually hurt you.) Use steel

eye bolts for termination of the harness points. Mount the eye bolts to the chassis and use oversized washers for strength. If you do not have a roll cage for the shoulder straps, pay close attention to their recommendations to the degree angle from the seat to the chassis. Lastly, if you bought a six-point harness, do not be lazy or cheap by putting both crotch-belt latches into one eye bolt; do it right the first time. You could possibly lose valuable track time if your car is not permitted by any pre-grid track inspection for this one little infraction.

Fire-suppression system

If your car is a dedicated track car, look into an activated fire-suppression system. You can design the install of the system to protect either the car or the occupants as much as you would like. These are self-contained stand-alone systems that operate on their own battery power, as long as you were attentive enough to arm the system before you go out on the track. Just in case you are a forgetful person, mount the arming box and the activation button within arm's reach with your harness or seat belt on. Make sure the button is labeled and not too close to a main power switch, the mistake would be messy and costly to get the bottle recharged. If you mount activation buttons inside and out of your car you will have your bases covered until help arrives.

Cut-off switches

In addition to interior and exterior safety buttons, if the car is a dedicated track car you should have some way to disconnect all battery power and to stop the engine. If you have crashed and the throttle is stuck or there is a fire and you want to stop the fuel pumps, this is the most reliable way to go. On Porsches prior to the 997 models, there are some good systems that perform both functions.

Always test things just to make sure that the engine definitely cuts off. For 997 owners, I do not know of an off-the-shelf system that you can buy. There are systems that people like us (Synergy Racing) and other Koni Challenge teams could sell you. If I were selling it to you, I would want to do the install myself just because the computers on the 997 get a little weird when they get completely shut down.

These are expensive systems but if you are in need of help any experienced corner worker at a track will immediately look for the exterior "kill switch" and fire-suppression buttons upon approaching a crashed car. Help them out by visibly labeling the switches correctly.

Steering wheels, air bags

Last but not least is the steering column. If you plan to do at least 60% track driving look into taking the stock steering wheel off and replace it with a racing steering wheel that fits you best. If you do choose to change out the steering wheel look into a quick-release system to remove the steering wheel for the steering column.

This feature is not only practical but serves as a safety feature as well. If you have a full cage or high sides to your racing seat the car is easier to get into with removing the wheel; also works for making the exit quicker as well. Also, if there was a serious crash and you were unconscious and were trapped, removing the wheel helps not only you get out but helps safety workers pull you out

with greater ease.

Airbags are great for initial impact protection but get in the way of being able to be seen or accessed by a corner worker. An air bag adds another source of fuel for any interior fire. Some air bags are flame resistant, but I am not sure if that is an industry standard.

If you do not know what a steering-wheel lock is just pull the key out of the ignition and turn the wheel. When it clicks it will stay in that position until the key is reinserted. Now imagine that happening on a straightaway at 120 miles per hour. Don't want to see that? Well neither do I, so that is why every car I build has that feature removed. If you do have it removed please take it to someone who knows what they are doing. This definitely goes for the 997, the steering-wheel lock is part of the anti-theft system. If it is done incorrectly you will put the car in safe mode; safe mode is not a come-to-your-house or garage service that Porsche offers, just in case you were wondering.

This is not a lecture or a sermon of what you have to do, just some thoughtful suggestions. Most, if not all, of these parts can be found at several racing-related outlets that provide services for Porsche Club activities such as OG Racing, CDOC, Piper Motor Sports, Phoenix Motor Sports or similar. A good place to start would be with your local independent garage or your own mechanic; they all would be good sources for vendors.

It is always important to look after your own safety; but remember you might have others at home who are waiting for you to come home after your fun weekend. If you do not upgrade your car for safety for yourself at least consider installing some or all of these options for them.

As always if anybody has any specific questions always feel free to contact me anytime.

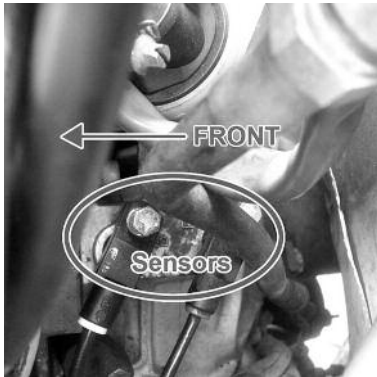
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Kerrigan Smith has been with Synergy Racing for the past six years. Currently, he is the acting 997 program director. Kerrigan has either designed and/or built all 14 of the Synergy Competition cars, now starting on #15 for the 2009 season. Highlights include the 2005 Rolex GT Championship in the #80 GT Porsche with David Murry and Craig Stanton, and the run for the Grand American Cup (now Koni Challenge) Championship in 2006 with the #81 Synergy Competition Wheel Enhancement car with Patrick Long and Brent Martini.



Bolt-in roll cages, as seen above, are an option for an upgraded street car to a safer occasional track car. The bolt-in cage mounts either to the front and rear seat-belt mounts, or to the front seat belt mounts and the rear shock towers.

How to replace a 944 sensor



Story and photos by Karl Smith
for *der Vorgänger*

If your 944 is slow to start or not starting at all and you've already checked the infamous DME relay, fuel pump and fuel pump fuse, the distributor cap and rotor and ignition wires; the next logical place to look is the speed and/or reference sensors (the ignition coils on these seldom fail). The DME unit could be to blame, but a simple check of these vital sensors is a good place to look before diagnosing a faulty DME.



Located on the top of the clutch housing, near the view port for the Top Dead Center (TDC) mark on the flywheel, these sensors are responsible for providing signals to the DME computer to let it know the timing and speed at which the engine's flywheel is turning. Without the proper signal, the computer will not provide power to the plugs or fuel to the engine. They are held in place by a single 10mm bolt.

A simple test of the sensors is as follows: Unplug the sensors, which are attached to a mounting bracket at the rear of the engine. The sensor leads should be labeled DG (speed sensor) and BG (reference sensor). If these la-

bels are not present, make sure you label them if you are going to disconnect both of them to avoid confusion. You will see three terminals on the ends of the plugs.

Using a multimeter, measure the resistance across the middle terminal and one of the outside terminals of the sensor's plug. One of the readings should give you a reading between 600-1600 ohms. The other will display infinite ohms. On my 1985.5 944 my GOOD sensor gave a reading of about 900 ohms. The readings were unchanged on the display for the BAD sensor on my vehicle. The defective sensor turned out to be the reference sensor (also known as a crankshaft position sensor).

Both sensors have the same part number 0261210003. A quick scan of online prices yielded prices between \$145-\$180 dollars. After doing some research on Porsche discussion forums, I found that the earlier BMWs used nearly identical sensors that cost \$55-\$75 (part number 0261210002). The sole difference is a longer plug lead on the BMW sensors. This does not pose a problem.

To replace

Spray some penetrating fluid around the base of the sensor. Let it soak for a while. Unbolt the single fastener securing the sensor in place and carefully twist the sensor back and forth while lifting straight up and away from the sensor port. Installation is the reverse. Just make sure the longer sensor wire does not come in contact with anything it shouldn't once it is installed (i.e., hot engine parts).

After this relatively simple check and fix you should be off and running again. And what's more, you may even notice that your car starts faster now as a result of replacing the faulty part!

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An excellent online resource for this and other repairs for 924, 944, 944 Turbo and 968 is Clark's Garage at:

<http://www.clarks-garage.com/>

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2009 concours program kicks off May 3

By Ron Davis
Potomac Concours chair
concours@pcapotomac.org

The word "concours" was derived from "concours d' elegance" which is French for a "gathering of excellence." Concours first began in France as a competition to determine the finest carriages. The criteria went far beyond the efficiency of each carriage; judging was based on the sophistication, beauty and refinement of these vehicles. The carriages, released from duty as conveyances and displayed in the most elegant settings, were admired as works of art.

With the dawn of the auto age a new era of craftsmanship and engineering ingenuity began. As a matter of fact, many of the early car builders actually started out building carriages and wagons; Studebaker is a good example.

The concours d' elegance followed suit, and concours became a celebration of the automobile. More than a quarter million people now collect, preserve and trade classic automobiles. The concours d' elegance exhibits and judges preserved or restored vehicles. Judges decide who has done the most outstanding job of proper care, maintenance and preparation.

The PCA Potomac concours program

PCA Potomac's car shows are mostly "low key" events and are often combined with a rally or picnic or some other social event. These are "Wash & Shine" shows, also called "People's Choice" shows; there is no official judging. Instead, winners are selected by ballots cast by owners/spectators. It is a fun way for car buffs to break into showing their car.

A true concours is a judged event where judges selected by the club use a scoring sheet where points are deducted from a maximum possible score based on condition and cleanliness. Various concours rules are used depending on the level of competition. PCA Potomac concours are "top only," meaning that the undercarriage of the car is not scored. We stick to the body, interior, trunk and engine compartment. Teams of three judges and a timer have about 3-4 minutes per car to do their scoring.

The Deutsche Marque Concours d' Elegance

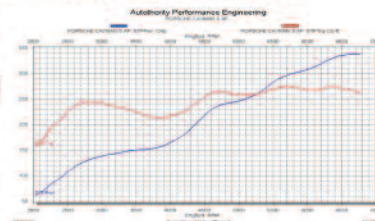
Our first event of the year on May 3 is the Deutsche Marque Concours d' Elegance, now in its 26th year. It is also our most challenging show if you enter the "concours" class, but we also have a "wash/shine" class. The show features the most prestigious German automobiles, some of the finest Porsches, Mercedes-Benz, BMWs and Audis will show up at Nottaway Park, Vienna, Va., on Sunday, May 3. The all-day event ends up with a traditional wine and cheese reception in the adjacent gardens where trophies are presented. Details to come in a future issue of *der Vorgänger*.

The PCA Concours program will have the events in the schedule on page 11. Notice that some of our events are low key, People's Choice "Wash & Shine" events without judging.



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How to replace a 944's clutch hydraulic system

Photos and story by Matt De Maria
for *der Vorgänger*

The 944's clutch is operated hydraulically. The clutch pedal actuates a clutch master cylinder, similar to a brake master cylinder. The pressure produced is transmitted through a flexible hydraulic hose (to allow for movement)

to a clutch slave cylinder mounted on the engine bell housing. The clutch slave cylinder exerts pressure against a pivoting lever that pulls the clutch-release (or throwout) bearing of the pressure plate to disengage the clutch disc.

One of the failure modes of a hydraulic system is fluid leaks. Fluid can leak either at the slave cylinder, the hydraulic line or the clutch master cylinder. In Picture #1, brake fluid is leaking through the protective boot of the clutch master cylinder on the inside of the firewall.

In this particular case, because of the mileage, it was decided to replace all the clutch hydraulics.

Disassembly

To make the job less messy, a Vacula tool is used to suck all the brake fluid out of the clutch system. See Picture #2

The Vacula tool is connected to the bleed valve of the clutch slave cylinder.

(See Picture #3 where this is viewed from under the car.)

The bleed valve is opened with the 7mm wrench, and the Vacula is turned on. The brake fluid will be sucked out of the clutch slave cylinder, the line, the clutch master and finally out of the clutch reservoir. See Picture #4 for a view of the fluid level in the reservoir after it has been emptied.

Next, the clutch slave cylinder is removed. Picture #5.

It is removed by unfastening the two 8mm bolts and the 12mm (ATF*) tube nut on the metal hydraulic line. An "S" wrench makes the removal of the upper 8mm bolt easy. Picture #6.

The flexible line is removed next using both 19mm and a 12mm line wrenches. See Picture #7 for a view of this connection under the plenum.

The other side of this line connects to the clutch master cylinder. Picture #8. This is a 12mm (ATF) tube nut.



2 A fluid extractor, such as this Vacula tool powered by compressed air, make evacuating the brake fluid from the clutch slave cylinder, the line and the clutch master cylinder a snap.

After this line is removed, the connecting pushrod to the clutch master must be disconnected from the clutch pedal linkage. (This requires that you be on your back underneath the dash). See Picture #9 for a view of the pushrod and the clip that must be removed.

See Picture #10 for a view of the pushrod.

After removing the pushrod, the clutch master cylinder can finally be removed by unfastening the two 8mm nuts holding it to the firewall. Picture #11 shows the removed clutch master cylinder.

Assembly:

Insert the pushrod into the new boot of the new clutch master cylinder and fit the unit onto the two 8mm studs on the firewall. Using a pair of long needlenose pliers, install washers onto the two studs. Getting the nuts started onto the studs is a normally difficult procedure; but the operation can be made easier by putting a bit of masking tape onto the nut. .

And then insert nut and tape into a 13mm swivel socket. See Picture #12.

DO NOT TIGHTEN THESE TWO NUTS YET. Start the tube nut of the new flexible line onto the end of the new clutch master cylinder. Picture #13. Wiggle the clutch master cylinder while starting the tube nut.

Once the tube nut is started on a few threads, a special ratcheting hydraulic box wrench is used to drive the nut home. See Picture #14 for a look at the tool.

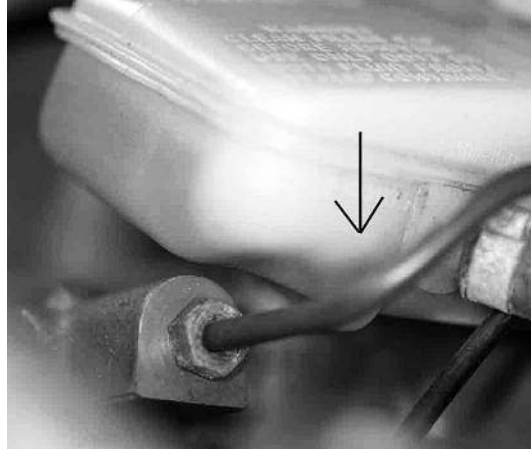
Picture #15 shows the tool in action also using a large



1 Fluid leaking from the boot (where it comes through the firewall (cockpit side), is an early sign of hydraulic system failure in a 944.



3 This is the view of the clutch slave cylinder from beneath the car showing the Vacula tool connected to the bleed screw at right.



4 Arrow points to the bottom of the clutch fluid reservoir after the fluid has been evacuated using the Vacula tool.



5 Remove the clutch slave cylinder by unfastening the two 8mm bolts and the 12mm ATF tube nut on the metal hydraulic line.



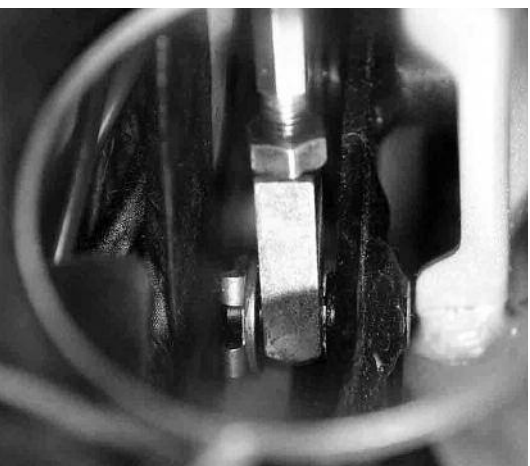
6 An "S" wrench makes removal of the upper 8mm bolt easy.



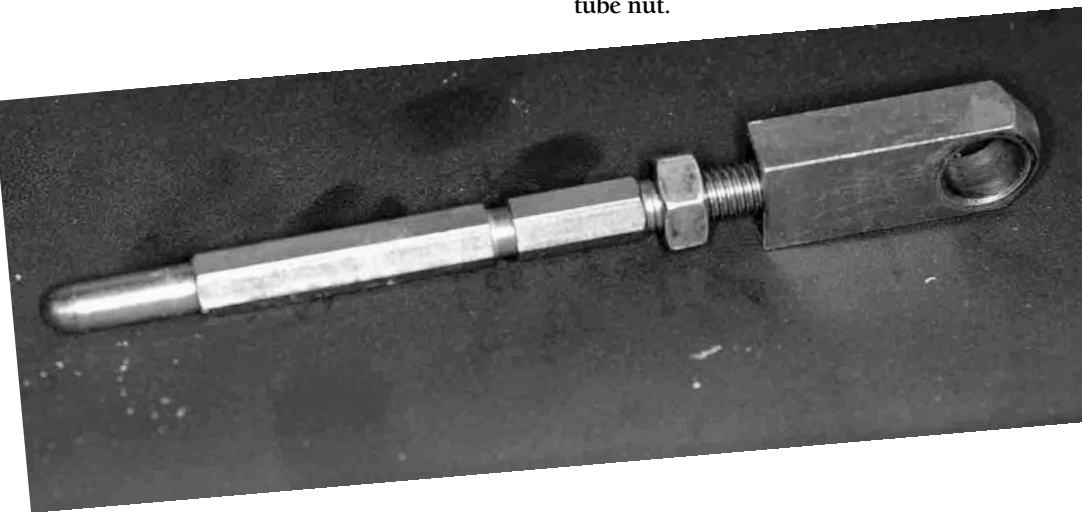
7 Remove the flexible line using both a 19mm and 12mm line wrenches.



8 The other end of the flexible line connected to the clutch master cylinder. This is a 12mm ATF tube nut.



9 You must be on your back underneath the dash to remove the connecting pushrod to the clutch master cylinder from the clutch pedal linkage.



10 A photo of the pushrod that you're removing in Photo No. 9.



11 Photo shows the removed clutch master cylinder.

12 Tip: To get the nuts started, usually a difficult procedure, use a piece of masking tape on the side of the nut, then insert the nut into the 13mm swivel socket.

13 Photo shows the new flexible line being inserted into one of the new clutch master cylinder. Wiggle the clutch master cylinder while starting the tube nut.

screwdriver to add a turning tension for the ratchet to work.

After the tube nut is tightened, finish torqueing the two 8mm nuts onto the studs on the firewall. Reattach the pushrod to the clutch pedal linkage; adjust the pushrod length to achieve the 1mm free play to the clutch master cylinder.

Reattach the flex line to the solid line underneath the plenum.

Attach the new clutch slave cylinder to the bell housing. For the present, leave the two 8mm bolts loose so that the slave cylinder is about 8mm away from the face of the bell housing. Picture #16

Using a pressure bleeder (such as a Motive, etc), bleed the clutch system. Check the clutch pedal play especially

at the top of the pedal travel. If the pedal does not return the last 25mm of travel to the rest position, continued bleeding should be performed. This time with the pressure bleeder attached, push the slave cylinder toward the bell housing a few times to create fluid turbulence internally to evacuate any remaining air bubbles in the system. Finish tightening the slave cylinder.

In summary, the replacement of the clutch hydraulic system is not rocket science; it does require some procedures to make the job less messy, like draining the brake fluid from the system. And some of the work is unavoidable and uncomfortable, like getting underneath the dash to disconnect and reconnect the clutch master clip. But overall it is a doable project for most DIY aficionados.

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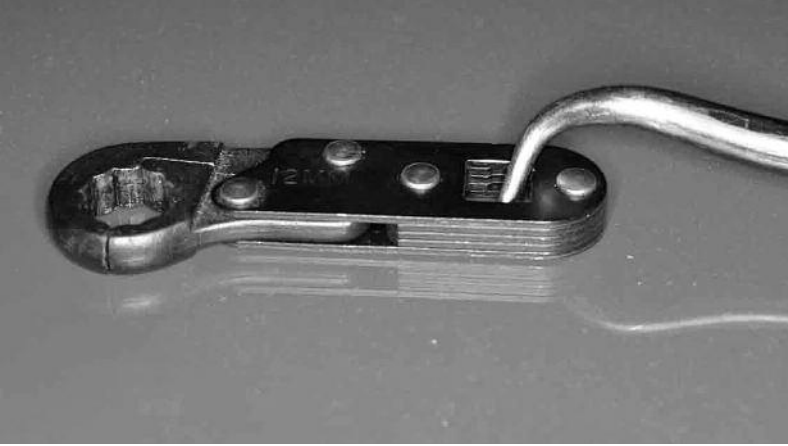
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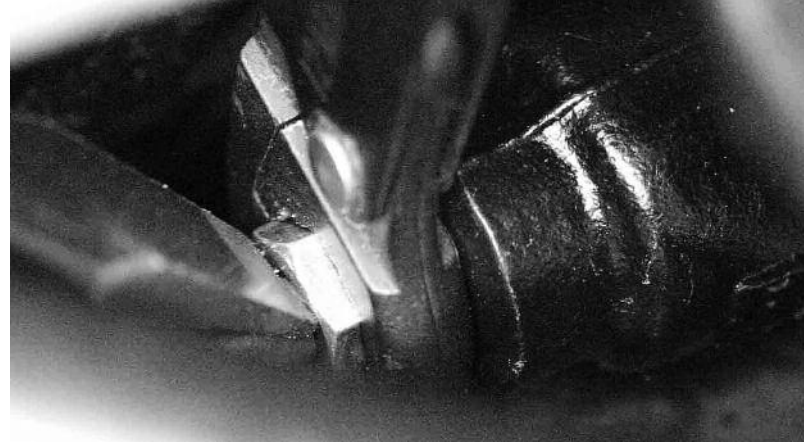
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(featured in April 2007 Excellence)



14 The special ratcheting hydraulic box wrench that is used to drive the nut home (in photo No. 13).



15 The special ratcheting hydraulic box wrench in action.

*ATF is the acronym for across the flats. Bolts are usually referred to as the body thread size. (eg. 8X1.25mm or 10X1.50mm). However one thread size can have variations of fastener size or what wrench size will fit on the fastener. (8x1.25mm can have a 12mm, 13mm, or a 14mm nut or bolt head) Hence the “across the flats” size.

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Matt De Maria, an engineer who left the government and started Stuttgart Performance Engineering in 1970, currently owns a Speedster and an early 911. He has owned about a dozen other Porsches over the years.



16 The new clutch slave cylinder attached to the bell housing.

Contact information for PCA Potomac Founder’s Region officers and chairs

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President: Tuffy von Briesen president@pcapotomac.org
 Vice president: Dick Seltzer vicepresident@pcapotomac.org
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 Secretary: John Magistro secretary@pcapotomac.org
 Past president: Tony Kelly pastpresident@pcapotomac.org

Drivers’ Education

Drivers’ Ed: Alan Herod dechair@pcapotomac.org
 Registrar: Charlie Clark deregistrar@pcapotomac.org
 Cashier: Skip Close decashier@pcapotomac.org
 Track coordinators: Doug Nickel, Eric Stratton trackrentals@pcapotomac.org
 Chief instructors: Ralf Bruckner, Dirk Dekker chiefinstructor@pcapotomac.org
 Tech co-chairs: Andy Clements, Kevin Oyler tech@pcapotomac.org

Programs

Autocross: Tony Pagonis autocross@pcapotomac.org
 Drive ‘n Dine: John Eberhardt driveanddine@pcapotomac.org
 Club Race: Kevin Oyler, Starla Phelps: clubrace@pcapotomac.org
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 Meetings: Janet Gresh meetings@pcapotomac.org
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 Public service: Scott Mayster publicservice@pcapotomac.org
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 Safety: Craig Bond safety@pcapotomac.org
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 Sponsor: OPEN sponsor@pcapotomac.org
 Zone 2 Rep: Jim Becker zone2rep@pcapotomac.org
 Webmaster: Michael Johnson, Pete Kauffman webmaster@pcapotomac.org
derVorgänger
 Editor: Richard Curtis deditor@pcapotomac.org
 Calendar: Kermit Kidwell calendar@pcapotomac.org
 Advertising: Michael Langshaw advertising@pcapotomac.org

Model Experts

Cayenne: OPEN cayenne@pcapotomac.org
 356 & 912: Tim Berardelli 356@pcapotomac.org
 911 (older): George Whitmore 911@pcapotomac.org
 930, C2, & C4: Roger Bratter 930@pcapotomac.org
 993 (*95-’98 911): OPEN 993@pcapotomac.org
 986 (Boxster): Geoff Thompson boxster@pcapotomac.org
 914 & 914/6: Ray Plewacki 914@pcapotomac.org
 944 & 968: Ivan Arzola 944-968@pcapotomac.org
 924: John Brown 924@pcapotomac.org
 928: John Lewis 928@pcapotomac.org



Readers and their cars

Above: January breakfast meeting participants in Maryland gathered around Joel Garick's 911 for a group portrait. From left: John Magistro, Tuffy von Briesen, John Eberhardt, Max and Rob Efrus, Lee Campbell, Kimo and Noki Lee, Marshall Schenck and James Chris.



Right: New club member Kimo Lee, left, takes a peek under Gaithersburg's Walt Ziffen's 2007 twin turbo. John Magistro is at right.



Above: Standing with his burgandy 1985 944 is James Chris of Annandale, Va. Jame also owns an Alpine White 1987 944, and hopes to convert one of them to a track car.

Left: Rob Efrus, left, and his son Max also attended the Maryland breakfast meeting. Son Max was voted the luckiest attendee as he got to drive off in his dad's black 2006 911 Carrera S. The Efruses are from Vienna, Va.

Readers and their cars

Right: Richard Owens of Ft. Washington, Md., made the trip across the river for the January breakfast meeting in Tysons Corner, Va. He was driving his 2002 Boxster featuring shiny aftermarket wheels and a bra. He said he'd just returned from a long trip highlighted by a blowout on the right rear.



Photos by Richard Curtis

Above: Highlights of a breakfast meeting, in addition to the food and fellowship, is standing around in the parking lot looking at Porsches. Here, Barry Neff (left) of Laurel, Md., and Arlington, Va.'s Bill Kincaid look over Neff's 2001 Boxster. Kincaid drove his 2000 Ocean Blue Metallic Boxster to the breakfast.

Left: Jim Campbell drove his one-owner 1977, 150,000 mile 911 Targa. He bought the car while living two years in Germany and celebrated the purchase with Champagne (then costing \$3 a bottle). He says he typically cruised the autobahn at 120-130 mph and has had the car repainted and a new windshield installed..



Eric Stratton's RS America at Summit Point (W.Va.) Raceway in 2008.

Photos by Willy Straubhaar

