

# NORTHLANDER

NORTH COUNTRY REGION

Volume 40 Number 1

PORSCHE CLUB OF AMERICA

January / February 2017



## IN THIS ISSUE:

NCR Gourmands Annual Dinner

NCR Autocross Pool Party

Improving The Turbo 996/997 Wing Lift

Watkins Glen Remembered

Porsche 911 GT3 R

And Much Much More...

# HELP PLEASE

North Country Region needs two individuals to fill the positions  
of Tech Chair and Advertising Chair.

If you have the talents and the desire to help your club please  
contact President Jeff Torrey

(C) (603) 234-8898 [president@ncr-pca.org](mailto:president@ncr-pca.org)



# NCR Planning Meeting January 15, and proposed calendar for 2017



## January

- 15 NCR Planning Meeting, 12:00 —3:00PM, Auburn Tavern, Auburn, NH
- 28 NCR AX Pool Party @ Billiards Café

## February

- 11 NCR Yankee Swap, 12:00—3:00PM, Holy Grail, Epping, NH
- 21 NCR Board Meeting, 6:30PM, Auburn Tavern, Auburn, NH

## March

- 14 NCR Board Meeting, 6:30PM, Auburn Tavern, Auburn, NH

## April

- 11 NCR Board Meeting, 6:30PM, Auburn Tavern, Auburn, NH
- 22 NCR AX #1, Devens Airfield, Devens, MA
- 28-30 NCR DE, Palmer, MA (Friday – Advanced Driver Day).

## May

- 9 NCR Board Meeting, 6:30PM, Auburn Tavern, Auburn, NH
- 20 NCR Rally #1, Location TBA
- 26-28 NER DE, Thompson, Thompson, CT

## June

- 9-11 NER DE, Palmer, MA
- 11 NCR AX #2, Devens Airfield, Devens, MA
- 23-25 NCR Spring Getaway, Location TBA
- 26-27 NCR DE, Lime Rock Park, Lime Rock, CT

## July

- 8 NCR Car Control Clinic (Tentative Date), NHMS, Loudon, NH
- 11 NCR Board Meeting, 6:30PM, Auburn Tavern, Auburn, NH

- 14-16 NER DE, Mt Tremblant, Mont Tremblant, Quebec, Canada
- 18-20 NER DE, Calabogie, Ontario, Canada
- 23 NCR Rally #2, Location TBA
- 30 NCR AX #3, Devens Airfield, Devens, MA

## August

- 6 Porsche of Stratham, Make-A-Wish car show
- 8 NCR Board Meeting, 6:30PM, Auburn Tavern, Auburn, NH
- 11-13 NER DE, Watkins Glen, Watkins Glen, NY
- 18-20 NCR DE, NHMS, Loudon, NH (Friday – Advanced Driver Day)
- 19 NCR Make-A-Wish Day at NHMS, Loudon, NH (Make-A-Wish participants contact Ivy Cowles)
- 26 NCR Rally #3, Location TBA

## September

- 2 NCR AX #4, Devens Airfield, Devens, MA
- 8-10 NCR Fall Getaway, Location TBA
- 12 NCR Board Meeting, 6:30PM, Auburn Tavern, Auburn, NH
- 16-17 Zone 1 AX, (NCR AX#5) Devens Airfield, Devens, MA
- 22-24 NER DE, Palmer, Palmer, MA
- 30 NCR AX #6, Devens Airfield, Devens, MA

## October

- 9-10 NCR DE, NHMS, Loudon NH
- 15 NCR Rally #4, Location TBA
- 17 NCR Board Meeting, 6:30PM, Auburn Tavern, Auburn, NH

## November

- 11 NCR Annual Banquet





# NORTHLANDER

NORTH COUNTRY REGION

PORSCHE CLUB OF AMERICA

Volume 40

Number 1

January / February 2017

## Editors

David Churcher

northlander@ncr-pca.org

Nancy Broadhead

northlander@ncr-pca.org

## Advertising

TBD

## Website

www.ncr-pca.org

## Statement of Policy

Northlander is the official publication of the North Country Region (NCR), Porsche Club of America (PCA). Opinions expressed herein are purely those of the writer and are not to be construed as an endorsement or guarantee of the product or services by the Board of Directors of NCR. The editor reserves the right to edit all material submitted for publication. Material may be reprinted by PCA Regions without permission provided credit is given to the Northlander and the author.

The regular article and Advertising closing date for the Northlander is the 1<sup>st</sup> of the month preceding the publication month. See page 38 for advertising rates.

## Upcoming Events

- 1 Calendar
- 5 Yankee Swap 2017

## Departments

- 4 Board of Directors & Committee Chairs
- 5 Editors' Desk
- 6 Membership
- 8 President
- 40 Safety
- 43 The Mart
- 46 Advertisers' Index

## Sports Car Services

Rebuilding British and German Sports Cars since 1984

www.sportscar-services.com    wrench@sportscar-services.com

(603) 352-4540

(603) 357-2484



Follow Us On Facebook

View our current projects at: [www.thisweekintheshop.com](http://www.thisweekintheshop.com)

Division of G&R Autoworks Ltd.

## Features

- 12 Looking Back
- 16 Watkins Glen Remembered
- 18 Improving the 996 / 997 Turbo Wing Lift Mechanism
- 22 Two Excellent Reads
- 24 Zone 1 2016 Fall Presidents' Meeting
- 26 Porsches for Pantries 2016
- 28 Podium finish and title win for Porsche
- 30 Porsche 911 RSR
- 33 24 Hours of Dubai, 2017
- 34 Daytona 24 Hours, January 28, 2017
- 36 NCR Autocross Pool Party January 28, 2017
- 39 Same Time Next Year
- 46 BTW



16



18



26

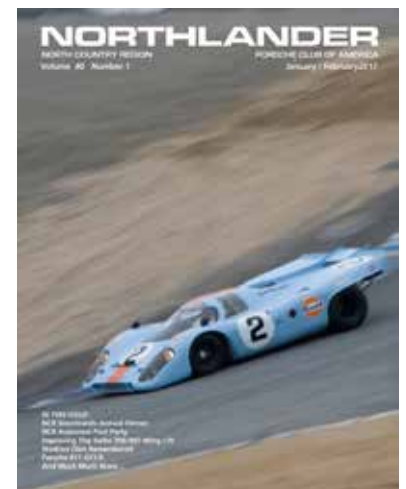


30

## On the Cover

Derek Bell takes a 917 down The Corkscrew at Mazda Raceway (Laguna Seca) during the Rennsport Reunion. His passenger is his son. Sort of a Steve McQueen and Chad McQueen moment.

Photo by David Churcher.



## BOARD

### BOARD OF DIRECTORS

---

|                   |                 |                    |                            |
|-------------------|-----------------|--------------------|----------------------------|
| President         | Jeff Torrey     | (C) (603) 234 8898 | president@ncr-pca.org      |
| Vice President    | Bill Hutchens   |                    | vice-president@ncr-pca.org |
| Secretary         | Nancy Broadhead | (H) (603) 526 6578 | secretary@ncr-pca.org      |
| Treasurer         | Tracy Hutchens  |                    | treasurer@ncr-pca.org      |
| Past President    | Matt Romanowski | (H) (603) 674 3250 | pastpresident@ncr-pca.org  |
| Membership Chair  | Laura Futterer  | (H) (207) 698 1104 | membership@ncr-pca.org     |
| Newsletter Editor | David Churcher  | (C) (603) 799 4688 | northlander@ncr-pca.org    |
| Safety            | Edgar Broadhead | (H) (603) 526 6578 | safety@ncr-pca.org         |

### COMMITTEES

|                    |                            |                     |                              |
|--------------------|----------------------------|---------------------|------------------------------|
| Advertising Chair  | <b>TBD</b>                 |                     |                              |
| Autocross          | Joe Kraetsch               | (H) (978) 534 0118  | autocross@ncr-pca.org        |
| Autocross Co-Chair | Ollie Lucier               | (603) 305-4045      | autocross@ncr-pca.org        |
| Car Control Clinic | Dave Logan                 | (C) (781) 367 3592  | ccc@ncr-pca.org              |
| Charity            | Ivy Cowles                 | (C) (603) 767 6461  | charity@ncr-pca.org          |
| Chief Instructor   | Steve Schindler            | (802) 773 9100      | chief-instructor@ncr-pca.org |
| Concours           | <b>TBD</b>                 |                     | concours@ncr-pca.org         |
| Drivers' Ed        | Pat Maloney                |                     | de@ncr-pca.org               |
| Historian          | Judy Hendrickson           | (H) (603) 881 7576  | historian@ncr-pca.org        |
| Rally/Tours        | Bill White                 | (H) (603) 465-7368  | rally@ncr-pca.org            |
| Webmaster          | Dick Demaine               | (H) (603) 560 4911  | webmaster@ncr-pca.org        |
| Senior Advisors    | Edgar & Nancy<br>Broadhead | (H) (603) 526 6578  | ednan@tds.net                |
| Social             | Bill Meyer                 | (C ) (928) 308-1435 | social@ncr-pca.org           |
| Technical          | <b>TBD</b>                 |                     | tech@ncr-pca.org             |

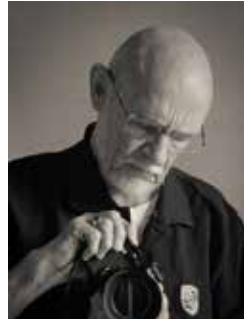
## CALENDAR

See the proposed calendar for 2017 on page 1 of this issue.

Yankee Swap, February 11 at The Holy Grail in Epping.

Watch the NCR web site for updates

## EDITORS' DESK



Happy New Year! It's Here! And Spring is Coming Soon!

This issue of *Northlander* is our first for the year and will be followed by monthly issues until our next "twofer" next winter. But let's not think about that. Instead let's think about the next eight issues and what we will put in them. I use "we" with some deliberation because, dear reader, it includes you.

We here at the *Northlander* offices have made a few changes since our last editorial column in the November/December issue. As you know we had an interim situation wherein Ivy needed a break, we called for new volunteers, and Tracey and I resumed as interim editors. That situation had to change because we did not get any volunteers and we had to know where we were going ... going forward. I dislike that "going forward" platitude as much as I dislike the "reaching out" platitude.

The "going forward" bit is as follows: David (moi) is taking on being editor, and photographer, for another stint. This change was precipitated by a gentle shove from Ivy in late December. Decision made. But what about the ominous task of proofing and the stubborn editor who prefers to work with one person? This preference is only because of the added workflow caused by being more than two persons. What to do? Would Nancy Broadhead take it on? Yes. And she said we will have fun. Yes we will. Working with Tracey and Ivy was so much fun it should be made illegal. But it isn't and they, great friends that they are, will be available if there is a crunch time. Tracey, btw, continues to edit for the Jag club, the stamp club, the kennel club, and re-enacts Civil War battles. Which proves again that if you really want something to get done give it to a busy person.

The "reaching out" bit is as follows: we need you to be the other side of the "we" equation. We need stories, photographs, tech articles. Please don't be shy. If you need a little help we are willing to provide it. But we need your initiative.

Oh, one caveat from the grumpy editor: if you send us photographs please use "LARGE" file size and a shutter speed faster than 1/125 second. ☺

Come on spring. We are ready.



**Exotic Car Club**  
of America LLC  
**James H. Smith**  
*President*  
421 Merrimack St  
Methuen Ma. 01844  
978-683-7500 Sales  
978-682-3200 storage  
jsmith@exoticcarusa.com  
www.exoticcarusa.com

**Maria Dona, DMD, MSD, DMSc**  
**Sheila E. Tucker, DMD, MMSc**

**Andover**  **Periodontics**

Two Stevens Street  
Andover, Massachusetts 01810  
Phone: (978) 475-0567  
Fax: (978) 475-7169  
contact@andoverperiodontics.com  
[www.andoverperiodontics.com](http://www.andoverperiodontics.com)



## MEMBERSHIP



Laura Futterer

### New Members:

Brandon Ambrose  
Manchester, NH – 2015 Cayman

Lawrence Carter  
Mike Stumbo  
Gray, ME – 1987 944  
Transfer from Down East – Joined PCA 03/08/2013

Gordon Cate  
Stratham, NH – 2001 911 Carrera

Joseph Jones  
Lebanon, NH – 1978 911 SC

Carl MacConnell  
Marlow, NH – 2000 Boxster

### January Member Anniversaries:

#### 1 Year

EJ Chen  
Rindge, NH – 2016 Cayenne

Matthew Davis  
Londonderry, NH – 2016 Macan S

Barry Edge  
Ivanhoe, VIC Australia – 1996 911 Carrera

Ray Newcomb  
Pembroke, NH – 1988 911 Turbo Targa

#### 2 Year

Kathleen Robinson  
5 Webster Ave  
Exeter, NH – 1964 356

Jack Wylie  
Stephanie Wylie  
Pembroke, NH – 2015 Cayman S

#### 10 Year

William Wright  
Adam Wright  
Lexington, MA – 1980 911 SC

#### 15 Year

Anthony Gargano  
Katherine Kiritsis  
Pocasset, MA – 2010 911 Carrera

Raymond Henson  
Kirk Evans  
Grafton, MA – 2000 Boxster S

Thomas Mauser  
Melissa Mauser  
Hollis, NH – 1988 911 Carrera / 1988 911 Carrera

#### 20 Year

Thomas DUBY  
Jennifer DUBY  
Enfield, NH – 1983 911 SC / 1987 944



## 25 Year

David Day  
David Day  
Canterbury, NH – 1983 911 SC / 1983 911 SC

## 30 Year

William Barker  
Susan Barker  
Dublin, NH – 1968 912 / 1963 356

## February Member Anniversaries:

### 1 Year

Andy Cooper  
Nashua, NH – 2016 Cayman GTS

Julian Devlin  
Hanover, NH – 2016 911 Turbo S

Peter Hoglund  
New London, NH – 1995 968 Cabriolet

Robert Michenfelder  
Lebanon, NH – 2015 Cayman

### 2 Year

Vlad Hladky  
Essex Junction, VT – 2013 Boxster S

Catherine Howard  
Dover, NH – 2004 Boxster

### 5 Year

Dennis Burke  
Boston, MA – 2006 911 Carrera S

Erwin Crampton  
Merrimack, NH – 2007 911 Turbo

Dan Polagruto  
Bolton, MA – 1984 928S

### 10 Year

David Boyle  
Leigh Boyle  
Bee Cave, TX

## 15 Year

Mark Moore  
Rebecca Moore  
Weare, NH – 1984 944

## 20 Year

John Ktistes  
Patricia Ktistes  
Rockport, MA – 1993 911 Carrera 2

## 25 Year

John Vander Sande  
John Vander Sande  
Newbury, MA – 1989 911 Carrera

Please notify the membership chair:  
[membership@ncr-pca.org](mailto:membership@ncr-pca.org) if you have changed your  
home or email address.



## PRESIDENT



### Jeff Torrey - Just around the corner...

Today is January 20th. My mothers' 85th birthday was on the 18th. She is living in a nursing home and last year I took her out to dinner. I picked her up in the Porsche and took her to Burton's Grill on Route 114 in North Andover, MA. I was able to park near the door. I walked around to open her car door and lifted her out of her seat. Mom was involved in a car accident in the early 1980's. She sustained a concussion and her health has gotten worse over time. She is blind and has problems with speech. She knows what she wants to say but can't vocalize her thoughts correctly. As we turned to walk toward the door of the restaurant there was an older couple leaving. He had been watching me drive up. The couple was well dressed and about to get into their Mercedes. They both smiled at me and he said, Hot date, huh? I said, she's the best. We went in and sat down. I sat beside her to help her with her meal. The staff was uncomfortable watching us, but the manager came over to make sure we were comfortable. She laughed and I could tell she enjoyed our time together. As we grow older, with hard work, we begin to acquire things. Being in construction, coming home dirty and tired at the end of the day, I had always aspired to own a high end sports car, thinking that it would elevate my status and put me in the company of like minded people. People of integrity, people with morals and high standards. Unfortunately it didn't work out that way in the beginning. I found out that the car really doesn't make the man. People are who they are no matter what they are driving. Fortunately in time and since I aligned myself with this club, and I have been able to find a handful of like minded people, close friends, people that care about each other. I am grateful.

Mom passed away this morning the result of her debilitating condition. It frustrated her to no end. She raised seven children, and she has held each of us accountable every day of our life. She was a very proud woman, she will be missed.



Please visit us at our new facility at  
398 US Route 1, Freeport, Me.

207 865 6600

# EXOTECH

LET OUR EXPERIENCE HELP YOU

All facets of routine maintenance  
for daily driver to race car

Crankshaft grinding  
and knifedging

Complete head work

Boattailing

Port work with flow bench testing

Motec and custom wiring harnesses

**Mark Nadler 9 Newton Road Plaistow NH 03865**  
**(603) 382-3599 [www.exotechpower.com](http://www.exotechpower.com)**



# SAFETY THROUGH TECHNOLOGY

We are your destination for safety equipment. Come to our showroom to get everything you need to drive on track. *Safely.*



NEW  
LOCATION!

**HMS**  
motorsport

[WWW.HMSMOTORSPORT.COM](http://WWW.HMSMOTORSPORT.COM)

100 Ferncroft Drive #208 Danvers, MA 01923 • Toll Free: 888.467.3269 • Local: 978-774-1615  
[STILO-USA.COM](http://STILO-USA.COM) • [SCHROTHRACING.COM](http://SCHROTHRACING.COM) • [COBRASEATS-USA.COM](http://COBRASEATS-USA.COM)



Announcing  
the new  
NCR  
Goodie Store!

NCR has partnered with Lands' End Business Outfitters and set up a store front to supply NCR logo'd items (shirts, jackets, promotional items, etc). Transactions are direct between you and Lands' End with no markup to NCR. The entire Lands' End Business Outfitters Catalog is available to you. Simply sign in to [www.ncr-pca.org](http://www.ncr-pca.org), go to the Goodie Store page and click on the link or go direct to

<https://business.landsend.com/store/ncr-pca>

create an account and you will enter the NCR Goodie Store to start your shopping.



425 Canal Street  
South Lawrence, MA

**Kachel Motor Company**

(617) 759 8973  
www.kmcauto.com

Sales, Maintenance & Fabrication Work on German and Italian High Performance Automobiles



**Softronic**  
Softronic ECU Flash tuning  
PCA authorized tech inspector

## THIS IS A TEST

**1: The Carrera 964 is also known as:**

- A Carrera 2
- B Carrera 4
- C 1991 911 Turbo II
- D All of the above

**3: The 914 2.0 was also called the 914S and the 914SC**

- A True
- B False

**2: 914/6 and 911 bodies had their final assembly on the same line in Zuffenhausen**

- A True
- B False

Answers are on page 45

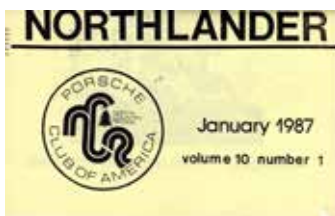
with thanks to Ed and Nancy Broadhead



## Judy Hendrickson **LOOKING BACK**

Ski season is in full force. This season has already produced more excellent days than all of last year. Yahoo for good snow-falls in the mountains. While the January thaw has left bare ground here in Nashua, up north (Campton and Waterville Valley way) still has more than a foot on the ground and the mountains have even more. If you haven't hit the slopes yet, get out there! The air is fresh and invigorating and the snow fantastic!

I got a bit messed up with the double issues last month so I will catch up here.



### **From Volume 10, Number 1, January 1987**

January 1987 was 10 8 ½ by 11 pages, double sided plus cover folded in half. The officers for 1987 were Ray Ayer – President, John Milliken – Vice President East, Michael Ahearn – Vice President West, Mary Milliken – Treasurer, Bill Jacobs – Secretary, Stephen Kaplan – Membership Director, and Ray and Vicky Ayer – Newsletter Editors. The treasury boasted \$2657.22 in the checking account and \$5,470.81 in the Money Market Fund. The big news was the departure of the Vermont territory from North Country to form a new Region, Green Mountain Region. While we are on excellent terms with Green Mountain now, the minutes in the January 1987 issue seem to indicate that it was an unwelcome departure by many North Country members. The new Region was centered mostly around the Burlington, VT area. Most of the Vermont members of North Country indicated they intended to remain with North Country.

I normally don't reprint items from an issue that were reprinted from other publications, but this one is so relevant to current times. Our region depends on its members to step forward and help it grow, prosper and have events. We are over 500 members, plus another 400 or so co-members, so there are lots of you out there who could lend a hand. If you have an idea for an event, let a board member know, better yet, volunteer to run or help run an event or take on a committee role. The club is what YOU make of it. Soooo are you a Hitchhiker or a Driver?

Hitchhiker or Driver?

There's a hitch to it — with his thumb, a hitchhiker says, "You furnish the gas, the car, attend to the repair and upkeep, supply the insurance and I'll ride with you. But if you have an accident, I'll sue you for damages."

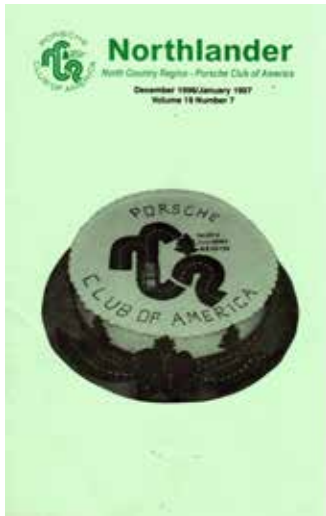
It sounds pretty one-sided, but one wonders how many hitchhikers there are in many organizations and clubs. Many members seem to say — you go to the meetings, serve on the boards and committees, do the paperwork, study the issues, contact the legislators and take care of things that need doing, and I'll just go along for the ride. If things don't suit my fancy, I will complain, criticize and probably get out and hitchhike to another group.

Hitchhiker or driver — which kind of member are you?

The Mariner

Pompano Beach (FL) Squadron

(Reprinted from "The Ensign" the publication of the United States Power Squadrons)



Cover: NCR Celebrates Another Year!  
Photo by Don Osborne

From 1997 I chose a Tech Article for those wanting to do some of their own routine maintenance work over the winter or this coming spring, prior to the start of the driving season.

**From Volume 19, Number 7, December 1996/January 1997**

## **Tech Stuff**

**By Jerry Austin, Technical Chair**

### **Brake Fluids and Bleeding Brakes**

Pete told me that more than 50 members participated in at least one track day from North Country during 1996. Those new to this type of driving will notice a strange and un-nerving sensation, “brake fade” or “spongy pedal”. This change in your braking system was caused by the heat generated by your aggressive (and exhilarating) driving on the track. The magnitude of brake degradation can be greatly affected by the age and quality of the fluid you are using.

Brake fluid type is graded by DOT as either 3,4 or 5. These are graded by their boiling points both dry and wet, the higher the number, the higher the boiling point. Boiling fluid will cause air bubbles to occur thus changing the liquid from incompressible (remember physics?) to partially compressible. Brake fluid is also “hygroscopic” which means that it absorbs moisture over time. As moisture increases, the boiling point decreases creating more air bubbles and quicker loss of brakes. Thus it is important to know the status of your brake fluid. Most track junkies use DOT 4 fluid that has a minimum dry boiling point of 448 F. Castrol makes a good product and it’s available at Wal-Mart at a reasonable price.

I used Castrol for a couple of years and switched to ATE Super Blue when I installed “Cool Carbon” pads. Carbon pads get extremely hot and the ATE has a boiling point of 536 F, but is more expensive, of course. DOT 5 is silicone based and no longer recommended due to a variety of problems.

There are many ways to bleed brakes. I’ll try to give you the method suggested by the factory, and give my ideas that differ a little. I also suggest that two people do this together rather than the “vacuum pump” method. The factory manual recommends doing wheels in the following order: left rear, right rear, right front then left front. I believe this is to clear out the longest line then progressively to the shortest. I agree with this method if you are replacing all of the fluid but think it is not necessary when bleeding the air out of fresh fluid after a couple of days of track. My theory is that all fluid in the lines and master cylinder reservoir are unharmed by heavy braking. So, if you have fresh fluid (less than 6 months old), you need to bleed out much less fluid than if you are replacing old (or different type) fluid.

Tools needed to bleed brakes are 7mm and 9mm box end wrenches (turbo may be larger), about 2 feet of clear 3/16” id tubing, clear plastic Pepsi (Coke will work) bottle with cap. I cut a small X in the bottle near the top, push the tubing into the bottle to the bottom. The plastic tubing and clear bottle will allow you to observe what comes out of the caliper and determine the quantity removed.

Jack the rear of the car and remove the left rear wheel. Remove the cap from the master cylinder reservoir. If you’re replacing the fluid, I recommend that you use a suction pump to remove most of the fluid from the reservoir, then fill with new fluid, otherwise, just top off the tank. Next, put your box wrench over the top bleeder nipple then push the plastic tubing into the nipple. Have your helper push and hold the brake down. Open the nipple, turn counter clockwise when looking down on it. When fluid stops coming out, close the valve snugly but not over tight, and have your helper release the brake. I use the words “down” and “up” to avoid confusion.

The factory suggests that the pedal be pumped two or three times before releasing the fluid but I found this to be unnecessary and very tiring for the helper.

I use the one pump method and it works fine. Continue this process until the liquid is clear and no bubbles. If your fluid is relatively new, you will not see many bubbles, only discoloration. Do not remove more than 3 ounces from a cylinder before checking the level in the reservoir. If you have two nipples on the top side of a caliper you should take fluid out from both. When done tighten nipples firmly but don't over tighten and replace the rubber cap.

Be methodical when bleeding brakes. Always fill the reservoir after each cylinder is bled. If the reservoir runs out of fluid you will be pushing air into the lines that can be difficult to get out completely.

Test the brake pedal yourself before continuing. If you have done things correctly, you should have a firm pedal (at least as good as when you started).

Go to the right rear and repeat the process. Replace the rear wheels.  
Always fill the reservoir after each cylinder is bled.  
Jack the front and remove the right wheel. Repeat the process.  
Always fill the reservoir after each cylinder is bled.  
Remove the left wheel and repeat the process.  
Always fill the reservoir after each cylinder is bled.  
Replace the front wheels.

Test your brake pedal yourself. It should be firm and high off the floor.

Please be sure to dispose of your brake fluid properly. It is treated differently than used oil and should not be mixed with it. Stores like VIP and NAPA will take the old fluid and dispose of it. Never reuse old brake fluid even if it looks totally clear.

Tech Tip: When autocrossing or driving on a track, remove all keys except the ignition key from the key chain. The weight of the extra keys and the side loads will cause your switch to fail. I did not follow this advice given to me until after I replaced my switch.



Photo Credit: Presse Porsche

## From Volume 30, Number 1, January 2007

Reading through the January 2007 issue was somewhat of a déjà vu experience. David Churcher had just taken over Editorship of Northlander along with helper Tracey Levasseur. Articles ranged from an expose on the new Porsche LMP Spyder and the inaugural offering of Looking Back. There was also an interview with moi, as the recipient of the 2006 Doug Hendrickson Enthusiast of the Year Award — man did I really say all those things about myself! And those pictures! How did David ever pry those from me! No I will not rerun them! John Killion offered another of his tome's from the car's perspective. The calendar was full with 24 events planned for the year plus all the Zone 1 events. Officers for 2007 were Miriam Dunster — President, Ivy Leonard — Vice President, Paul Tallo — Secretary, Pete Petersen — Treasurer, Janet Leach — Past President, Lisa Roche — Membership Chair, Tracey Levasseur and David Churcher — Newsletter Editors, Bob Tucker — Webmaster, Advertising Manager — Matt Romanowski, Joe Kraetsch — Autocross Chair, Paul Tallo — Charity Chair, Bob Tucker — Chief Instructor, Judy Hendrickson and Lisa Roche — Concours Chairs, Paul Frucci and Bob Pickul — Driver's Ed Chairs, Don Johnson — Rally Chair, Edgar & Nancy Broadhead — Senior Advisors, Ivy Leonard and Steve Robbins — Social Chairs, Jay Gratton — Technical Chair, and David Churcher — Yearbook Chair.





## From Volume 30, Number 2, February 2007

Tracey Levasseur reported on the World of Wheels car show in Boston complete with lots of pics of far out customized vehicles. As the cover indicates there was an extensive article on the history of the 914 by Bill Kallgren. There was a report on the sleigh ride at Point of View Farm (must have been a winter like last year as the sleigh turned into a wagon with hay due to lack of snow). The new Porsche Museum was well under construction and an article from Presse Porsche along with pics covered its progress. Another installment of Looking Back covered February 1978 and February/March 1997.

*914s on parade,  
NHIS October 2006  
by John Rahill*

---

## Potential Brewfest Event Judy Hendrickson

The Potential Event described on page 16 of the November/December 2016 issue of Northlander has been cancelled due to lack of response. I had asked that anyone interested let me know by the end of December in order to make plans for the February/March time frame. Unfortunately, only one person responded. Given the substantial financial commitment to reserve the facility I could not commit to such an event with so little response.

# Watkins Glen Remembered

Photographs and story by Bill White



1970 – [Sir] Jackie Stewart in Tyrrell-Ford (retired with oil leak on lap 82)

In the late 1960s I was enrolled in graduate school at RPI in Troy, NY. Those familiar with upstate New York will be aware that Troy is within day-trip driving distance of Watkins Glen. An advantage of being a graduate student, impoverishment notwithstanding, was the occasional time away from studies, trips to Watkins Glen for United States Grand Prix Formula One races in early October of those years being an example. Armed with a rudimentary camera and 50 mm lens, off I went for races in 1968, 1969, and 1970, the later with my soon-to-be wife, Kathy. The track in those days was shorter than the current one, being known to some as "The Third Track".

In more contemporary times, I acquired a film scanner and have set about to convert my collection of slides and films to digital format. The Watkins Glen slides seemed a natural contribution to Northlander. Regrettably some of the old photographic emulsions have deteriorated (or so I claim to avoid being blamed for poor photographic technique) so what can be recovered by scanning is sometimes less than ideal. Photo annotations are the best that Internet documentation and aging memory can reconstruct.



1969 – Jochen Rindt (#2) in Lotus-Ford (Finished #1)



1970 – Heading into turn 8; Chris Amon (#12) in March-Ford on far left (Finished #5)



1970 - Jo Bonnier (#27) in McLaren-Ford (retired with broken water line)



1970 – Pete Lovely (#28) in Lotus-Ford (DNQ)



1970 – Peter Gethin (#9) in Tyrrell-Ford (Finished #14)

# Improving the 996 / 997 Turbo Wing Lift Mechanism

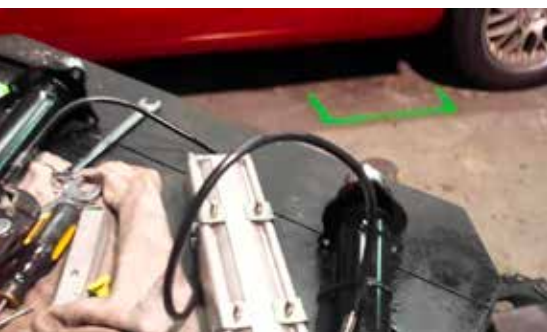
David J. Cooper

Rally Sport Region



Above: the stock device replaced with eRam components.

Below: the wing tilted by failure of left side stock device and the removed components.



A few years ago, my Porsche® 996 Turbo's hydraulic wing lift system failed... twice... The first failure was before I bought the car. I purchased my 2002 Turbo knowing that the wing did not go up and down as it should. Being an engineer, I thought it must certainly be a rather simple repair. Researching a few popular online 996 Turbo forums, there was quite a bit of advice on how to fix the problems with the hydraulic wing system.

Step 1 was removing the 3-piece hydraulic mechanism from my Turbo's back lid and disassembled it on my work bench.

Removal of the 3-piece hydraulic system and subsequent troubleshooting took quite a bit of effort – and was a very messy job with power steering fluid leaks and drips. But I was driven to find the root cause of failure and finally discovered plastic components that had partially melted inside the 12V motor along with the PS fluid leaks. It was clear that the system was never intended to be refilled, much less regularly maintained. Once the motor was repaired and the hydraulics refilled, bled, tightened up and bench tested, the mechanism was installed back into my Turbo. Problem solved...I was proud of my repairs.

Just a few months after the rebuild, one of the hydraulic rams catastrophically failed, leaking PS fluid down the back bumper and into the engine bay. The wing was stuck up on one side and wouldn't move.

Further research verified that the hydraulic ram cylinders cannot be rebuilt without cutting them apart to replace leaking internal seals – then re-soldering the assembly back together. From stories on the forums, it became apparent that

- Drive motor overheating (my root cause problem)
- Leaking ram o-ring(s) (my other root cause problem)
- Leaking banjo fitting(s)
- Leaking syringe pump seal(s)

- Broken plastic plunger block
- Malfunctioning micro-switch(es)
- Broken ram spring(s)
- Deteriorated shaft wiper seal(s)
- Contaminated fluid
- etc.

there are a quite a few failure modes:

Why would such a failure prone mechanism ever be installed on the 996 Turbo? Further research revealed that Porsche® designed and patented a “Motor vehicle with a rear end spoiler device”, or the bi-wing design, that for the first time provided negative lift (or downforce) on the Turbo. Porsche needed a dual cylinder lifting mechanism for such a wing and went outside to find the mechanism. A hydraulic mechanism was designed, patented and supplied by a German supplier to Porsche in time for the 5th generation water cooled turbo production start in 2000. This same hydraulic mechanism was used for the Carrera GT wing and again for the 6th generation 997 Turbo wing. It was clear to me that there had to be a better device for raising and lowering the wing.

My engineering instincts kicked in, causing me to wonder how to improve the overly complex, and failure prone hydraulic wing lift mechanism.

My goal was to design and build a simple all-electronic wing lift mechanism for my car that is robust, yet easy to install and work on without special tools. I searched for a 12 volt electric ram and found devices that are used to position photovoltaic panels in the desert. Perfect for placement under the Turbo’s lid! I then designed CAD prototype parts and had them machined for trial fitting. A local water-jetter and machinist were secured to produce the various prototype parts out of billet aluminum:

The next challenge was figuring out the electronics, which was the most time consuming piece of the puzzle. In the stock Turbo, should the wing not move, or extend up all the way, or take too long to deploy, the dreaded Spoiler Warning is displayed on the instrument cluster.

It was necessary to understand the switch logic and reverse engineer what the original programmers had coded into the cluster ECU in order to circumvent the warning. After completing the ladder logic, I made a prototype electrical gizmo with relays and programmable timers mounted to a plywood board for in-car testing. It functioned perfectly to circumvent the warning.

The final challenge was figuring out how to fit all of the electronic components into a small waterproof box – with that piece done, it was mission accomplished: Lighter, More Robust, 3 Heights, Virtually Plug & Play and NO MORE HYDRAULICS!

After all this work, I wondered if an electric wing lift mechanism might be desired by other 996 Turbo owners? As it turns out, the 4th most popular post on a well-attended 996 Turbo forum, at 55,911 views, is “996 TT rear spoiler problems – Help!” The original idea was to improve upon the factory hydraulic system in my car, but maybe others would benefit from a solution to replace their dysfunctional spoiler mechanisms.

To find out, I created a post on the same 996 Turbo forum titled “Beta Testers Needed for Electric Spoiler Rams”. In short order, 24 fellow 996 turbo enthusiasts stepped up to test out my new wing lift kit and provide feedback. Currently, my “Beta Testers” post is in the top 15 with 27,958 views.



Top photo: Stock turbo wing lift hydraulic mechanism.

Photos below are some of the author’s prototype parts.



I had my answer. Early in 2015, I created a company called Rennkit to provide a replacement electric actuation system for the wing hydraulics on 996 Turbos. Any new company must hand out titles. I chose President, and my wife was awarded the title of Chief Bubble Wrap Officer (CBWO). The first "eRam" kit was installed on my 996 Turbo in March, 2015, followed closely by the two dozen beta testers.

The Rennkit website was launched to explain the infamous factory hydraulic system and failure modes and to provide details about the distinctive eRam wing actuation system. The electric wing lift mechanism was unique enough to file for a provisional patent. The final check was high speed track testing; which took place at our club's annual Grattan Raceway DE event and again at another club's Mid-Ohio Sports Car Course weekend DE event. The highest extension version is the 4" eRam, which added more rear downforce to improved lap times.

With Rennkit up and running, the next development was for the 997 turbo eRam kit, which was accomplished 6 months later. The first 977 turbo eRam beta tester claimed 200 MPH runs with his 3" eRam kit installed.

From the top:

New electric eRam sets in 3 sizes for the 997 Turbo.

The dreaded Spoiler Warning light.

Prototype control mechanism to cancel the spoiler warning.



Speed testing 4" eRams on the author's 996 Turbo at a PCA Mid-Ohio HPDE event.



# THUNKS

Like Share

Click on your appropriate state for titles and ordering information:

- [AL](#) . [AK](#)
- [AZ](#) . [AR](#)
- [CA](#) . [CO](#)
- [CT](#) . [DE](#)
- [FL](#) . [GA](#)
- [HI](#) . [ID](#)
- [IL](#) . [IN](#)
- [IA](#) . [KS](#)
- [KY](#) . [LA](#)
- [ME](#) . [MD](#)
- [MA](#) . [MI](#)
- [MN](#) . [MS](#)
- [MO](#) . [MT](#)
- [NE](#) . [NV](#)
- [NH](#) . [NJ](#)
- [NM](#) . [NY](#)
- [NC](#) . [ND](#)
- [OH](#) . [OK](#)
- [OR](#) . [PA](#)
- [RI](#) . [SC](#)
- [SD](#) . [TN](#)
- [TX](#) . [UT](#)
- [VT](#) . [VA](#)
- [WA](#) . [WV](#)
- [WI](#) . [WY](#)

Contact Ivy : [Ivy@ThunksReviews.com](mailto:Ivy@ThunksReviews.com)

## Want Better State Testing Scores? SOL, NECAP, PASS, etc? Too Much to Review? Not Enough Time? Don't Panic! It's Not too Late! Ready-to-Use Daily Review Books

These books are designed to correlate to State Testing Standards, Virginia's SOLs, South Carolina's Academic Standards (PASS), or NECAP Grade Level Expectations. Each book includes at least 23 daily reviews in testing format. Many other states find our titles comparable to their state's standards and the Common Core Standards. The books are reproducible, unless otherwise noted, and extremely easy to use.

THUNKS Reviews, LLC  
4241 South Fletcher Ave.  
Fernandina Beach, FL 32034

Email: [ivy@thunksreviews.com](mailto:ivy@thunksreviews.com)  
Phone: 1-855-484-8657 (1-855-4THUNKS)

**2nd Grade  
Daily Reading Reviews**

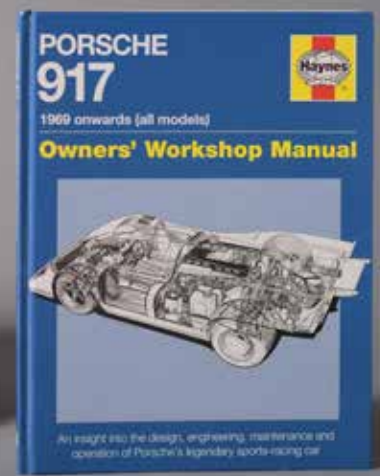
Reproducible and Ready-to-Use



- variety of genres
- 20 reading selections with test-like questions
- 24 pages of test-like constructed responses
- 5-minute daily practices
- answer key

Thunks Reviews, LLC

**Teachers and home schoolers love these reviews... a must have for your classroom!**



# Two Excellent Reads

By David Churcher

## Time and Two Seats

János Wimpffen

published 1999

2225 pages in two volumes

“Light reading” at about 15 pounds heavy

\$1399 at Amazon for a used copy

Someone famous once said: “If I had realized they would become the good old days I would have paid attention and enjoyed them more at the time.” It’s a worthwhile sentiment. Just imagine someone writing a book 50 years from now describing the Porsche 919 and Le Mans 2016 as being “the good old days” ...

János Wimpffen has written a massive two volume set which covers the good old days from Sebring 1953 through to the 2.5 Hours at Kyalami in December 1998. Between these two events about 2100 pages cover annual events such as Daytona, Sebring, Le Mans, Nürburgring, Brands Hatch, Spa, Monza, Targa Florio, and many other races. The content is all sports cars. There is a reference to someone famous (but not named) who said: “F1 is the premier motor sport.” We can quickly guess who would have made such a silly statement.

My copy of Time and Two Seats was a gift to myself while I was living in Germany in 2000. At the time I was working for Heidelberg (printing machines) and my initial reaction upon opening the books was to turn my nose up at the print quality. Initially I was not impressed by the physical book but, once I started reading, I realized there was a good read here. I started with Le Mans, of course, then selected various races I knew of over the years since I had become a Porscheophile in 1959. As I read these accounts of races I had to ponder: where was I that day and what was I doing? I was in Paris

János Wimpffen has written more motor sport books. *Winged Sports Cars* (2006), *Spyders and Silhouettes* (2007), and *ELVA* (2011).

the day of Le Mans 1967. Paris 1967, where I learned from a taxi driver Les américains had won Le Mans.

The book does require a structured reading approach to truly appreciate it. To help with this the author has provided a detailed table of contents, three forwards (by Phil Hill, Brian Redman, and Derek Bell), an author’s preface, an introduction, and a “how to use this book”. You can use this book to examine statistics which have been nicely tabulated. For many famous races you can simply dive in and read the description of how the races unfolded. I was completely drawn in to the Le Mans descriptions. Most of the race descriptions are written with a hint of humor. Some of the sad events covered will provoke tears. It is a hard sport. Safety was not always as good as we have it today.

Some of the humor is worth describing here. For example: in 1958 at the Buenos Aires 1000Km Mike Hawthorn could not start. He had a very bad sunburn ... even on the part he sits on. At Daytona in 1964, Bill McElvy’s Abarth went into a sand trap at the beginning of the race and he worked for hours to free it ... and did, just as the race finished. A British team at Le Mans 1982 found their car measured too low when the scrutineers measured it ... so they added a plastic dome to the roof and painted the word TAXI on it.

Some interesting and perhaps little known facts get mentioned: The 904 was not designed by Porsche alone, Hans Tomala had a lot of input. The Le Mans 1974 winning



Matra had a Porsche gearbox which had to be repaired during the race by Porsche mechanics because of the contract detail made with Porsche. The 917/20 "Pink Pig" (cosmetic design by Tony Lapine) was made a slippery shape by the French SERA aeronautical group for Le Mans 1971. Wimpffen's account indicates it "squeaked off the Armco" at Arnage 12 hours into the race. Further research into this and I found it was not due to Reinhold Jöst's driver error. The car had been faster, and harder on its brakes, than expected. The brake pad change schedule was not adequate. This came to light only when the car was stripped down at the factory and found to have no friction material left.

This set of books has increased in value over the last 16 years. I did not pay the currently advertised price. My friend The Big Cheese bought a copy a few years ago and paid a considerable sum. The current price indicates this is a massive undertaking by the author and is of historical value.

A good read is like a fine wine. This read is right up there with a Penfold's Hermitage.

---

## BTW

If you look closely at the stack of books used in the background you will see some old classics:

*The Racing Coopers* Arthur Owen

*Challenge Me The Race* Mike Hawthorn

*The Sports Car Engine* Colin Campbell

*Competition Driving* Paul Frere

All four of these books are from the 1960s ... the good old days.

## Porsche 917 (1969 onwards) Owners' Workshop Manual

Ian Wagstaff

\$25 at Amazon

Given the title of this book one would logically expect lists of torques to apply, angles to set, and tools needed. But that is not quite the case in spite of the "workshop manual" description. The material is not too technical but does give advice on where to find genuine Porsche 917 spares, or new manufactured equivalents, from places like Dave Griffiths Racing in the UK. There is a mention of spark plugs ... NGK work well and cost less than Bosch plugs. If your 917 should lose its OEM Fichtel and Sachs clutch you can do what the John Wyer Gulf team did and replace it with a Borg and Beck. If your 917's ATE brakes are not up to your expectations you can replace them with Girtings ... and they are lighter too.

Not really a manual with instructions but it is a not too expensive compilation of 917 facts and photographs. A worthwhile addition to any 917 fanatic's library.

There is a fascinating chapter on the provenance of each car with its original and subsequent chassis numbers. Explanation is given for the changed numbers, which cars were a real 917 and which were made from bits found and pooled. And there is a description of the final identification of 917/23 which had been confused with 917/20 for the years it lived in Japan.

Eight appendices give a great deal of detail for typical specifications, race wins, etc. And there is a huge bibliography.

If you own a 917 you probably will not use this book as a reference in your garage. But if you wish you owned a 917 and wanted to learn all about the car then this book is a gem. Cutaway drawings show in great detail the layout of the flat 12 and the complete car. This book contains all the significant history of the design, its evolution, the failed parts and the replacement parts, the engineers, the drivers, and the mechanics. The mechanics include a few paragraphs from Alan Hearn ... who you met in the Northlander November/December 2016 issue.

# Zone 1 2016 Fall Presidents' Meeting

By Murray Kane

On November 19, 2016 Zone 1 held its 2016 fall President's meeting in Clifton Park, New York. Most of the Zone 1 Presidents and staff were in attendance. Pete Tremper the outgoing President led the meeting and covered Zone 1 and Nation items. Zone 1 Event Chairs reviewed their 2016 events and plans for 2017. We also had a treasurer's report from Joyce Gladle. The Presidents voted Mike Bryn of UCR as the 2017 Zone 1 Representative. The last order of business was a banner presentation made by PCA National Treasurer Aaron Ambrosino to Mike Bryan, UCR's outgoing President in honor of the region's 40th year in PCA. In the evening we all gathered for cocktails and dinner in the hotel's banquet room for a relaxing dinner amongst old and new friends. Most attendees stayed the night to wake up in the morning to find heavy snow falling with an accumulation of 2" at departure time.





**BLACK  
RIVER  
DESIGN**  
ARCHITECTS

*New Wildlands Trust Headquarters (Plymouth, Ma.)*



# Porsches for Pantries 2016

By Rich Willey

iPhoneography by Stanley Boduch

## NCR was there to help

As many of you know, NCR members take great pride in helping others less fortunate than we, especially during the Holidays. This year, on a cool crisp Thursday evening in November, Ivy organized a trip to the Barrington NH Food Pantry where we were warmly greeted by Stanley Boduch with that infectious smile. He was just as excited to see us as we were them. What a wonderful group of volunteers they have there.

Although only a few members were brave enough to bring P-cars out in the cold (Hank and Ivy drove Cheeset and Harv drove Dobbin all the way from Hancock, NH), everyone brought multiple boxes and bags of food and paper products to provide a bit of help for the folks in Barrington during the toughest time of year.

Of course, it wouldn't be an NCR event without a meal, so several of us went to Dante's Pasta and Vino for excellent Italian food and robust conversation. Thanks again to all who participated, and we hope to see many more NCRers next year, as we plan to make a food pantry event part of our annual charitable work.

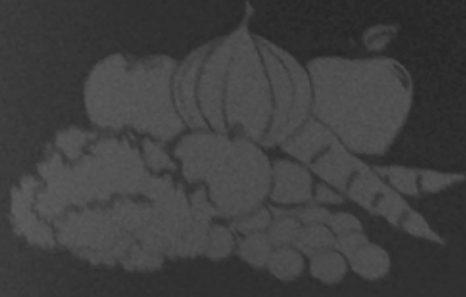
Photographs on this page of the NCR group were taken by Stan Boduch. The photograph on the adjacent page is Stan, and this is not a "selfie" ... so there is an unknown NCR photographer at work here.





*Please Support  
the*

**BARRINGTON  
COMMUNITY  
FOOD  
PANTRY**



# Podium finish and title win for Porsche in a highly emotional finale

Endurance Championship WEC, LMP1, Round 9, Bahrain, Race FIA World  
Photographs and text by Presse Porsche



For the second consecutive year Porsche has taken everything in the FIA World Endurance Championship (WEC): victory in Le Mans, winning the manufacturers' world championship in Shanghai and now again the drivers' world championship at the finale in Bahrain. In the last of nine WEC rounds in 2016 Timo Bernhard (DE), Brendon Hartley (NZ) and Mark Webber (AU) came third, having started second on the grid with their Porsche 919 Hybrid. The new world champions, Romain Dumas (FR), Neel Jani (CH) and Marc Lieb (DE) only came sixth after contact with another car early in the race. Audi's dominant one-two race result was an impressive farewell from the WEC.

The six-hour race started at 16:00 hrs with ambient temperatures near 30 degrees Celsius. After the sun had set at 16:45 hrs the air cooled down to 24 degrees.

## How the race went for car number 1:

Bernhard starts from second on the grid and lets Jani in the sister car pass him on the first lap. On lap 13 the number 7 Audi also overtakes him, Bernhard is fourth now. After 29 laps he hands over to Webber, who manages to improve to third by overtaking the number 5 Toyota on lap 43. Hartley jumps in after 59 laps, and after 89 laps Bernhard takes over until Hartley is back in the car after 120 laps. Bernhard once again jumps in after 150 laps, before finally, after 180 laps, Webber goes in to enjoy the final stint of his racing career. After a total of 201 laps he brings the 919 home in P3.

## How the race went for car number 2:

Jani improves on lap one from third to second. On lap 15 he is overtaken by the number 7 Toyota. Jani is third now in front of the sister Porsche. After 28 laps he has his first pit stop and continues. One lap later he has contact with a GT car and has to stop again: the damaged tyre and rear bodywork is changed. Now the number 2 Porsche is one lap down. After 60 laps Dumas takes over, after 91 laps it is Lieb's turn, after 122 laps Jani is back behind the wheel and after 153 laps it is Dumas again. Lieb climbs into the car for the final stint to cross the line some 20 minutes later after 198 laps and becomes a world champion.

## Quotes after the race:

Fritz Enzinger, Vice President LMP1: "Today's race has shown what characterises the Porsche Team. It was able to handle a difficult race under huge pressure. I can only say thank you to all six drivers, every single team member and the Porsche board members, who have supported this programme right from the beginning. Also today at the track they have personally shown that they absolutely support the project. Congratulations to Audi for a well deserved victory today, and thanks for the great competition – we will miss you."

**Andreas Seidl, Team Principal:** "Le Mans winners, manufacturers' and drivers' champions – for the second consecutive year we have achieved all our goals. That is an immense joy for us as the Porsche Team. I congratulate our three world



champions Marc, Neel and Romain as well as the crew of car number 2. This car has been the only one of all LMP1 entries that hasn't spent a single second inside the box with technical problems during the 2016 races. We are now looking forward to the celebrations. And, after a short pause for a rest, we will start flat out with the preparations for 2017."

#### Drivers Porsche 919 Hybrid number 1

**Timo Bernhard (35, Germany):** "My start wasn't too bad. Neel came on the inside and, of course, I left him room to overtake. We were about the same speed and neither of us was quick enough to catch the Audi, but clearly we beat Toyota. For us it was very important to hand over the car to Mark at the end and enable him to do the last laps, and we wanted to be together with him on the podium for one last time. This was a very emotional day, too much to put it into words."

**Brendon Hartley (27, New Zealand):** "My first stint after Timo and Mark had been driving went pretty cleanly. I had Kazuki Nakajima behind me and it was a bit tricky with the traffic, but it came out okay. Regarding the Audi, we were hoping to get closer when it was getting cooler, but it didn't work out today. They deserved the victory in their last race. And for Mark and us it worked out, as we got onto the podium in his last race. We did our maximum today, and it is really very sad to see him go."

**Mark Webber (40, Australia):** "I was the second and the last driver in the car today, and pretty happy with both stints. Early in the race I had a nice little fight with the number 5 Toyota. I managed to get passed him and tried to pull away, but we didn't have enough pace to fight the Audi. Then for the final stint it was pretty emotional putting my helmet on for the last time. I enjoyed the last stint and I got the chance to bring the car to the chequered flag for the top three finish, and this was the maximum we could get today. It has been such an incredible three years for me with Porsche, together with Timo and Brendon and the whole team. Nothing is forever, I'm stopping at a good time and I'm looking forward to seeing everybody again soon."

#### Drivers Porsche 919 Hybrid number 2

**Romain Dumas (38, France):** "For us the chance for a podium was over after one hour into the race. After Neel had contact with another car our 919 felt strange. We had a little oversteer everywhere. But, because of the championship situation, we didn't have to push. For us it was important to finish the race reliably and avoid any mistakes – I'm relieved it worked out."

**Neel Jani (32, Switzerland):** "It was a promising race start. It was also hard work, because I frequently got into traffic in the worst places, but the strategy and the first pit stop went very well. Then when I was on my out lap a GT car just hit me, which caused damage to a rear tyre and bodywork. After the repairs the car wasn't great anymore and we had no chance to close the huge gap to the front. All we could do was hope the number 6 Toyota would not win and make sure that we would not take any risks on track."

**Marc Lieb (36, Ludwigsburg):** "For me it went pretty smoothly, and I was just carrying the car round the track. Since the hit when Neel was driving early in the race, the steering wheel wasn't straight anymore. Our 919 wasn't in the best shape in the end, but we rolled it home, and we just made it."



# Porsche 911 RSR

Photographs and text by Presse Porsche

## The most spectacular nine-eleven ever

### New 911 RSR for Le Mans

Stuttgart. Porsche will tackle the 2017 racing season with an all-out newly developed GT racer. The new 911 RSR makes full use of the breadth of the Le Mans 24 Hours GT regulations, and in addition to systematic lightweight design, features the ultra-modern, flat-six unit positioned in front of the rear axle. The four-litre, extremely light aggregate features direct fuel injection as well as a rigid valve drive and is characterised by outstanding efficiency. The new 911 RSR will make its debut at the Daytona 24-hour race in January 2017.

“While retaining the typical 911 design, this is the biggest evolution by now in the history of our top GT model,” says Head of Porsche Motorsport Dr Frank-Steffen Walliser. The new 911 RSR is a completely new development: the suspension, body structure, aerodynamic concept, engine and transmission have all been designed from scratch. The engine concept has enabled the designers to install a particularly large rear diffuser. Combined with a top-mounted rear wing adopted from the LMP1 race car, the 919 Hybrid, the level of downforce and the aerodynamic efficiency were significantly improved.

“For the 911 RSR, we deliberately focussed on a particularly modern and light normally-aspirated engine, as this gave our engineers immense latitude in developing the vehicle,” explains Dr Walliser. “Apart from that, in principle, the LM-GTE regulations stipulate the absolute equality of various drive concepts, as the torque characteristics of turbo and normally aspirated engines are aligned.” Depending on the size of the restrictor, the new normally-aspirated unit puts out around 375 kW (510 hp). Shift paddles on the steering wheel actuate the sequential six-speed gearbox with a magnesium housing, which delivers power to the 31-centimetre-wide rear wheels. The changeover to the new engine generation is now complete. After the 911 GT3 R and the 911 GT3 Cup, the spearhead of Porsche GT racing cars is now also powered by the same cutting-edge six-cylinder boxer engine family.

In the past, Porsche has already thoroughly pushed the limits with the concept of the 911 – in 1996 with the 911 GT1. With great success: In 1998 the 911 GT1 achieved the 16th overall victory for Porsche at the Le Mans 24-hour race. Back then, the fastest vehicle in the field emerged from the GT1 class.





For the first time, a Porsche GT race car features state-of-the-art assistance systems: the new 911 RSR is equipped with a radar-supported collision warning system, the so-called "Collision Avoid System". Even in the dark, the faster LMP prototypes are detected early enough and misunderstandings can be avoided. A new safety cage concept and a new, rigidly-mounted racing seat enhance driver safety. With the seat fixed to the chassis, the pedalry can now be moved and adjusted to fit the driver.

The new 911 RSR's serviceability has also been significantly improved: Entire elements of the carbon-fibre body can be exchanged completely in a very short time thanks to clever quick-release fasteners. Moreover, changes to the suspension setup can be performed much more quickly and easily.

With the look of the body wrapping, the 911 RSR is striking out in a new direction: For the first time, the GT racer bears the new factory design that has further developed the clear and dynamic design language of Porsche Motorsport. From a bird's eye view, a hint of the Porsche emblem silhouette can be seen. The basic colours remain white, red and black.

In the 2017 season, the factory is expected to run the new 911 RSR at 19 outings which equates to more than 140 hours of racing. With two factory-entries, Porsche will tackle the FIA World Endurance Championship (WEC) including the 24 Hours of Le Mans as well as the American IMSA WeatherTech Championship. The new racer will celebrate its debut under the toughest conditions at the IMSA season opener in Daytona on 28-29 January. "We're very well prepared for this," says Marco Ujhasi, Head of GT Works Sport. "Since its first rollout in Weissach in March this year we've covered 35,000 test kilometres on racetracks in Europe and North America – that's more than in the development of any other Porsche GT racer."

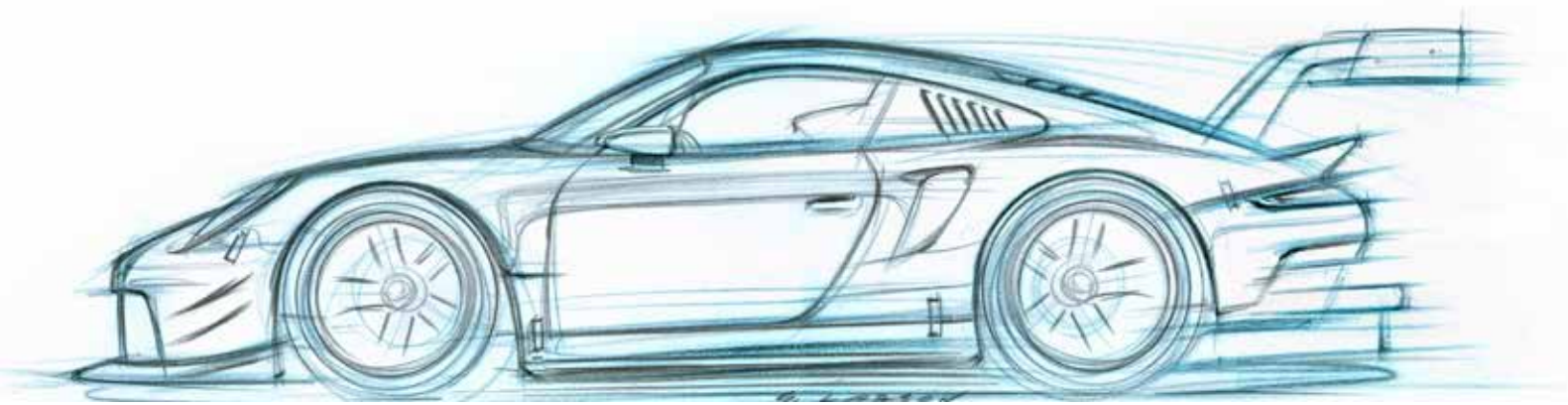
### **Technical data Porsche 911 RSR model year 2017**

#### **Concept**

Single-seater race car for the LM-GTE category

#### **Weight/dimensions**

Weight ca. 1,243 kg (base weight per regulations)  
Length 4,557 mm (without splitter, rear wing, diffuser)  
Width 2,042 mm (front axle) / 2,048 mm (rear axle)  
Wheelbase 2,516 mm



### **Engine**

Water-cooled six cylinder boxer, positioned in front of the rear axle; 4,000 cm<sup>3</sup>, stroke 81.5 mm, bore 102 mm; ca. 375 kW (510 hp) depending on restrictor; four-valve technology; direct fuel injection; dry sump lubrication; single mass fly-wheel; power output limitation via restrictor; electronic throttle.

### **Transmission**

Six-speed sequential constant-mesh gearbox; two-shaft longitudinal layout with bevel gear; shifting via electronic shift actuator; shift paddles on the steering wheel; magnesium gearbox casing; multi-disc self-locking differential with visco unit; three disc carbon race clutch.

### **Body**

Weight-optimised chassis in combined aluminium steel design; removable roof hatch for cockpit access; lifting bushes integrated in the roof; FT3 fuel cell in front of the car; welded-in roll cage; seat pursuant to FIA 8862-2009; rigidly mounted to the chassis; six-point safety harness for use with HANS; longitudinally adjustable pedalry; bodywork made of CFRP, quick-change; rear wing with "swan neck" mounts; four-post air jack system with safety pressure valve; electronically activated fire extinguisher system; heated windscreen.

### **Suspension**

Front axle: double wishbone front axle; four-way vibration damper; twin coil spring setup (main and helper spring); anti-roll bars, adjustable by blade positions; electro-hydraulic power steering

Rear axle: integrated rear axle subframe with double wishbone axle; four-way vibration damper; twin coil spring setup (main and helper spring); anti-roll bars, adjustable by blade positions; electro-hydraulic power steering; tripod drive shafts.

### **Brakes**

Two independent brake circuits for front and rear axle, adjustable via balance bar.

Front axle: One piece aluminium six-piston racing callipers with quick coupling; internally ventilated steel brake discs, 390 mm diameter; race brake pads; optimised brake cooling ducts.

Rear axle: One piece aluminium four-piston racing callipers with quick coupling; internally ventilated steel brake discs, 355 mm diameter; race brake pads; optimised brake cooling ducts.

### **Wheels/tyres**

Front axle: One piece forged light alloy wheels, 12.5Jx18 offset 25 with centre lock nut; Michelin slick 30/68-18.

Rear axle: One piece forged light alloy wheels, 13Jx18 offset 37 with centre lock nut; Michelin slick 31/71-18.

### **Electrics**

Cosworth Central Logger Unit; CFRP multi-functional steering wheel with integrated display; shift paddles and quick release; Collision Avoidance System; controlled alternator in connection with LiFePo<sub>4</sub> battery; LED headlights; LED taillights plus rain light; illuminated car number and leader light system; black light inside cockpit; electric adjustable wing mirrors with memory function; tyre pressure monitoring system (TPMS); drink system; air conditioning system; membrane switch panel on centre console with fluorescent labelling.

**BTW**

Do you like the photographs Porsche supplied with this article? They are from Frank Kayser.

For more excellent photography go to his web site: [www.Kayser-photography.com](http://www.Kayser-photography.com)



# 24 Hours of Dubai, 2017

Photograph and story by Presse Porsche

A successful start to the season for the Porsche 911 GT3 R: At the Dubai 24 Hours, the 500 hp customer sports racer from Weissach celebrated a double victory. The Herberth Motorsport team clinched overall victory at the season opening race of the 2017 motorsport year at the Dubai Autodrome after taking the lead during the night with Porsche works driver Brendon Hartley, Robert Renauer, Ralf Bohn, Daniel Allemann and Alfred Renauer. Manthey-Racing beat Mercedes and Audi to secure second place with Porsche works driver Sven Müller, Porsche “Young Professional” Matteo Cairoli, Otto Klohs and Jochen Krumbach. Porsche’s success at the most important sports car race in the United Arab Emirates was crowned by the French team Imsa Performance, whose 911 GT3 R scored fifth with Porsche “Young Professional” Matthieu Jaminet. A total of 92 vehicles tackled the event.

## Race result

1. Hartley/R. Renauer/Allemann/Bohn/A. Renauer (NZ/D/CH/D/D), Porsche 911 GT3 R, 578 laps
2. Müller/Cairoli/Klohs/Krumbach (D/I/D/D), Porsche 911 GT3 R, 576
3. Al Faisal/Haupt/Buurmann/Bronizewski/Engel (KSA/D/NL/PL/D), Mercedes GT3, 575
4. Osborne/Haigh/Ratcliffe/Haase (GB/GB/GB/D), Audi R8, 571
5. Jaminet/Narac/Cornac/Jousse (F/F/F/F), Porsche 911 GT3 R, 569

Photograph above is the winning Porsche 911 GT3 R



# Daytona 24 Hours, January 28, 2017

Photographs and story from Presse Porsche

## Race result

### GTLM class

1. Hand/Müller/Bourdais (USA/D/F), Ford GT, 652 laps
2. Pilet/Werner/Makowiecki (F/D/F), Porsche 911 RSR, 652
3. Fisichella/Calado/Vilander (I/I/SF), Ferrari 488, 652
4. Garcia/Magnussen/Rockenfeller (E/DK/D), Chevrolet Corvette, 652
5. Tincknell/Priaulx/Kanaan (GB/GB/BRA), Ford GT, 652
6. Estre/Vanthoor/Lietz (F/B/A), Porsche 911 RSR, 652
7. Pla/Mücke/Johnson (F/D/USA), Ford GT, 652
8. Auberlen/Sims/Farfus (USA/GB/BRA), BMW M6, 651
9. Gavin/Milner/Fässler (GB/USA/CH), Chevrolet Corvette, 651
10. Westbrook/Briscoe/Dixon (GB/USA/NZL), Ford GT, 624

### GTD class

1. Christensen/Lazare/Morad/C. de Quesada/M. de Quesada (DK/CAN/CAN/USA/USA), Porsche 911 GT3 R, 634 Runden
2. de Phillippi/Mies/Gounon/Schmidt (USA/D/F/SWZ), Audi R8, 634
3. Keating/Bleekemolen/Farnbacher/Christodoulou (USA/NL/D/GB), Mercedes AMG, 634
4. Aschenbach/Davis/Bell/Liddell (USA/USA/USA/GB), Audi R8, 634
5. Segal/Negri/Dyer/Hunter-Reay (USA/BRA/USA/USA), Acura NSX, 634
6. Sweedler/Bell/Montecalvo/Kaffer (USA/USA/USA/D), Audi R8, 633

A successful race debut for the new Porsche 911 RSR at the 24 Hours of Daytona: With a fantastic charge through the field in the last hours of the race, Porsche factory drivers Patrick Pilet (France), Dirk Werner (Germany) and Frédéric Makowiecki (France) secured second place in the GTLM class for the Porsche GT Team factory squad. After 634 laps on the demanding Daytona International Speedway, they were just 2.988 seconds shy of claiming victory. However, a win at the season-opening round of the IMSA SportsCar Championship was celebrated by the Porsche customer team Alegra Motorsports: With the Porsche 911 GT3 R and supported by Porsche factory pilot Michael Christensen (Denmark), the squad won the GTD class. For Porsche, this was the 77th class victory at the world famous long distance classic in Florida.

Photo on this page: Kevin Estre (France), Laurens Vanthoor, (Belgium) and Richard Lietz (Austria), Porsche 911 RSR.



The Porsche photographers took a lot of candid pictures capturing the mood and thrills of the race. A often made comment was to say the race was very "European" ... maybe so ... but there is a lot of distinctly USA flavor here. The above selection is from Presse Porsche.

# NCR Autocross Pool Party, January 28, 2017

## Photographs by Ollie Lucier

NCR Autocross participants have a well earned reputation for hosting a good time ... and having a good time. Just look at the smiles in this collage of photographs from Ollie's camera. Ollie was helping Joe with handing out awards while seeing to *Northlander's* request for photographs. In addition to class trophies, three special awards were presented:

Ed Moschella - Driver of the Year award.

Charlie Sayers - John MacDonald Most Improved Driver award.

Akira Mochimaru - Worker of the Year award.





Other shops bring their problem cars to us--

We have the *LATEST* in *DIAGNOSTIC TECHNOLOGY*.

# Precision Imports



We specialize in fuel injection & C.A.N. diagnostics.

We have 5 ASE Master Technicians with Advanced Level certification; 2 of them are Bosch Master Technicians.

We believe in perpetual schooling so our technicians are well versed in the latest automobile technologies.

183 Faltin Drive, Manchester, NH 03104 Toll Free: 1-800-464-2031 | Phone: (603) 624-1113  
Hours: Monday-Friday 7:30am-5:30pm

## STUTTGART NORTHEAST, INC.



**WE SERVICE ALL MAKES OF EUROPEAN CARS**

SERVICED BY PEOPLE THAT OWN AND DRIVE THEM

**Jim Mallette**  
Owner - Technician  
978-777-3077  
978-777-9855 (fax)

OEM DIAGNOSTIC EQUIPMENT

stuttgartne@comcast.net  
507 Maple Street  
Route 62  
Danvers, MA 01923



# Same Time Next Year

By Danielle Badler

I remember when Autoweek was still a weekly, and it was called Competition Press and AutoWeek. It was printed on newsprint. I'm not ashamed of that. But I much prefer to look forward, to the New Year and beyond, especially at this time of year.

And so I did recently, when I found in my virtual in-box a one-off special insert from Autoweek's parent, Automotive News. The insert was all about something called Automobility LA. Apparently this was a four-day trade show for the "new" auto industry, celebrating "the intersection of technology and the automobile...."

I dived in; in-depth promotion of the talk-fest, timed to precede the annual LA Car Show, with representation from ... yes indeed, Porsche. As well as Ford, Amazon, IBM Watson, Mercedes-Benz, Facebook and more.

No, I didn't read the whole insert. And I didn't print it out either. I mean, it ran to 50+ pages. But I did discern some highlights that I'm honored to share with you, dear reader, as we round out the year. You can thank me now or thank me later.

The keynoter was Padmasree Warrior, U.S. CEO of Beijing-based EV start-up NextEV. That's Beijing as in China. She had previously been a global marketer with Motorola and Cisco Systems. In advance of her podium remarks, she sat down with Automotive News for a Q & A.

"We are focused on the mobility experience versus just the car," she says in the interview. "We say we are designing the product and platform strategy from the user end rather than the wheels out.... I think of the car as the smartest device people will own in the future.

"Three big trends will disrupt the auto industry. First is the shift from the internal combustion engine to the EV. Second, the shift from the car being just a device to an experience. Third, the shift from ownership to ride sharing.

"Cars will continue to be aspirational products. There will continue to be ownership, because cars are the most desirable consumer product, more so than owning a home in many countries.

"Increasingly the car will become more of a computer, more of a robot. I think of it as an intersection of two circles. We are absolutely open to partnering as the whole industry shifts to the future. For me it's not a question of who wins. We want the consumer to win."

Hmmm. Remember, she was the keynoter. I'd give a lot to know how these comments registered with the delegation from Stuttgart. You'll note, no talk of enthusiasm. No wail of the banshee. No mention of lap times or driver involvement, other than to press buttons.

Then I came across the Top 10 Automotive Startups of 2016. These were selected by the event organizers from 130 applicants for an expectation they will "make significant contributions to the world's transportation and mobility needs." Here are a few.

Evercharge. Their goal is "to make electric vehicle ownership accessible for everyone - not just people who own their own homes.... The company's focus is installing and managing smart EV charging systems in multiple unit buildings."

See Jane Go. A "ride-hailing app set up by women for women, providing safety and trust factors lacking in existing sharing apps. Because we think getting into cars with strange men should be reserved only for online dating."

Spacial.AI. A "geospacial API that provides users with the culture and flavor of urban areas, through big dataanalysis of social media." The idea is to enable people to navigate an unfamiliar city like a local, "anywhere in the world."

YourMechanic. This one's my favorite. An "on-demand car repair service, offering more than 500 repair, maintenance and diagnostic services. These mechanics can travel to your office or, yes, they even make house calls.... Before scheduling an appointment, the customer can read ratings and reviews of the mechanic. The flat rate quote doesn't change, even if the job takes longer than anticipated."

The organizers of Automobility LA are also promoting a Design and Developer Challenge. The theme? "Autonomous Vehicles: A Redefined User Experience for 2050."

Teams competing must "collectively envision how technology, data, connectivity and content will power modern vehicle design and the in-vehicle experience."

No, they don't say who won. This insert was in advance of the convention. But I'm really curious. Maybe I'll get an update insert from Automotive News in my e-mail. I hope so. Because, hey, 2050 is 34 years from now. That's it. Think back 34 years to, yes, 1982. It wasn't that long ago. What were YOU driving?

Hold that thought! Happy Holidays and New Year to us all!



## Edgar Broadhead

The following individuals have been approved as Tech Inspectors for those region members who enter track events requiring inspection prior to the event. The Tech Inspection is provided as a service (some of the Tech Inspectors charge a nominal fee) to North Country Region members who print and bring the inspection form for driving events. Here is the link for the inspection form:

<http://ncr-pca.org/images/stories/downloads/TechForm.pdf>

| Name                                  | Position         | PhoneNumber    |
|---------------------------------------|------------------|----------------|
| Autowerkes Maine                      | Maine            | (207) 865 6600 |
| Ayer European Auto Restoration        | Maine            | (207) 582 3618 |
| Autosportnortheast                    | Maine            | (207) 698 1000 |
| German Auto Service, Inc.             | Maine            | (207) 282 3013 |
| The Boston Sportscar Co. LLC          | Massachusetts    | (781) 647 7300 |
| Katchel Motor Company                 | Massachusetts    | (617) 759 8973 |
| LDV Motorsports                       | Buzzards Bay, Ma | (508) 789 0961 |
| Exotech                               | New Hampshire    | (603) 382 3599 |
| Sports & Vintage Car                  | New Hampshire    | (603) 675 2623 |
| Dupont's Service Center               | New Hampshire    | (603) 742 8627 |
| G & R Autoworks                       | Keene NH         | (603) 357 2484 |
| Series 900                            | Sunapee, NH      | (603) 748 0787 |
| Series Motorsports                    | New Hampshire    | (603) 232 5443 |
| Porsche of Nashua                     | New Hampshire    | (603) 595 1707 |
| Blair Talbot Motors                   | New Hampshire    | (603) 740 9911 |
| Precision Imports                     | New Hampshire    | (603) 624 1113 |
| AVA Restoration                       | New Hampshire    | (603) 563 8910 |
| JSP Motorsports                       | New Hampshire    | (603) 477 9738 |
| Zak's Auto                            | New Hampshire    | (603) 943 7682 |
| Continental Automotive Repair Service | New York         | (845) 356 2277 |
| Auto Union                            | Vermont          | (802) 223 2401 |
| Eurotech                              | Vermont          | (802) 660 1900 |
| Green Mountain Performance Co.        | Vermont          | (802) 775 3433 |
| Heads Up Motorsports Inc.             | Vermont          | (802) 886 2636 |
| Rennline Inc.                         | Vermont          | (802) 893 7366 |
| The Auto Master                       | Vermont          | (802) 985 8411 |
| The Metric Wrench                     | Vermont          | (802) 751 8577 |



***Be Ready for Track Day...***

***...Be Ready for Every Day***



**Tuning • Handling • Maintenance**



**ASE Certified Master Technicians  
Full Service Foreign Auto Specialists**



**Factory Level Diagnostics and Service for Porsche  
Call 802-775-3433**



[www.GreenMountainPerformance.com](http://www.GreenMountainPerformance.com)

**Passionate about Performance**, that best describes Green Mountain Performance. Established in 1995, they have been at their current location for over 11 years, in the heart of central Vermont on Route 4 in Mendon. They are the place to go for the best in general service, repairs and performance modifications for your cherished rides. Their new facility has allowed them to expand service to accommodate the specialized tools & diagnostic capabilities to provide accurate repairs on today's complex vehicles with their many on board computer systems.

After 30 years of show winning, trophy grabbing, solid performing and attention getting vehicles, they have built a small but dedicated staff of craftsmen & suppliers to provide the utmost in satisfaction for their clients. They can now proudly say that they can accurately provide dealer level service on all German marques, predominantly Porsche, with a bevy of state-of-the-art diagnostic equipment & personalized service unmatched in their area. Their ASE certified technicians are not just nine to five, they live this stuff-from the streets to the track.



**From Bill Myer**

Photo made with a Samsung cell phone 1/125 sec at f1.9

BTW

**From Edgar Broadhead**

### **Gas or No Gas?**

Do you have trouble putting gas into your Porsche? 986 Boxsters, 996 Carreras, and maybe others have an evaporative emission system of several hoses, valves, and electronic components to control gasoline vapor emissions. These vapors are stored in a charcoal canister located in the rear of the right front fender. Periodically the ECU will command a valve on the intake manifold to open and suck these vapors into the engine to be burned.

The system is usually trouble free, but the fuel tank vent valve can become sticky or fail to open, making it difficult or almost impossible to fill the gas tank. When you stop at the gas pump, remove the cap, put the nozzle in the filler neck, squeeze the lever and get sprayed with gas, you have a vent valve problem.

Pelican Parts tech info has good instructions for "Replacing the Porsche 911 Carrera Fuel Line Vent Valve."

But before you replace the valve, try this: Remove the gas cap, and with your finger operate the metal flap in the filler neck. You should hear a Click. There is a magnet in that flap that triggers a reed switch to open the vent valve. Check fuse E6 in the fuse box. The fix may be as simple as replacing that fuse!

**For Sale - yellow 1977 924.** This car has been owned by our family twice and spent time in Vt in-between. I am too busy to put work into this old girl (install front fenders that I have for it and tune-up), and with two small children don't have the time either. I am not hard-up to sell this but don't want to watch it rot....if anyone has a similar car or needs a project first \$1000 takes it... Harold Lamos veggieh@yahoo.com



**For Sale: 1973 Porsche 914 1.7** -One owner since 1977. 135K miles. Body restored in 1995. Good condition. Still runs but needs some work. Asking \$5500 Contact: Kim Scoggins 843-705-6053 Kimscoggins91186@gmail.com

**For Sale:  
Porsche Calendars For Sale**

Free to a good home: about a dozen, large scale, Porsche photo calendars from the 1980's and 1990's, in their original boxes but minus the medals that accompanied them when new. Contact Phyllis at 603.498.8952 or pstibler@comcast.net



**For sale 2013 Porsche Boxster. \$46,000.00** This is a beautiful car in great shape only 15152 miles. 6 speed manual transmission. This car is loaded...19 inch Boxster S wheels, Bose Surround Sound System, Sport Chrono Package. Installed K40 Radar and Laser detector a \$2500 value. Many more options, call (603) 969-0378. Ask for Phil.

**2007 Cayman stuff:** Covercraft Dustup indoor car cover, clean, like new, \$100. Covercraft sun shade, \$35. Porsche Design mens medium black wool and leather jacket, like new, worn less than a dozen times, \$150. Gary Levine, gmlevine29@gmail.com, 603-252-8506.

**For Sale: 997 Turbo Wheels and Tires:** from 2007 C4S; Front-8x19-235/35; Rear-11x19-305/30; Wheels-Clear coat blemishes but no curb rash; Tires-Michelin Pilot Sports some life left, ok for track; \$800 or reasonable offer; Contact Paul at: pvbellacqua@comcast.net

**"Turbo" 17" Wheel and Tire Set. From 1988 911:** 4 Rims: Italian 9J x 17 H2 series 60374 and 60474 with Porsche emblem. One has minor scuff. 4 Tires: Goodyear Eagle GT all season; Rear: 255-40 ZR 17; Front: 205-50 R 17. Treads excellent - Set: \$1,000 firm in St George Maine (lovely drive this time of year) 207-372-8288 [wmzierden@aol.com](mailto:wmzierden@aol.com)



**For Sale:** 1960 Mercedes Benz 220SE Cabriolet. 76,000 miles, Black/red. Totally rust free, 50 years in Las Vegas & Santa Fe. New top, new leather seats, recent black lacquer respray; even the radio works! Class winner 2015 MAW show. \$125k or reasonable offer; 45 pix available or view & drive in person. 603-343-7575



**For Sale:** NCR has a surplus Honda EU1000i generator for sale. cost \$800 new. Just changed the oil. Approximately 600 hours on it.

Located in New London, NH. All offers considered.

Ed  
603 526 6578

**FOR SALE: Miscellaneous Porsche Stuff:**

Official factory workshop manual in 10 binders for 993 series including two rare volumes covering Turbo; new condition.

Set of four Dunlop Grand Trek WT M3 255/50R19 M+S winter tires on 19 in Porsche wheels with Porsche center crest, TPMS sensors, service covers; used one season on 2008 Cayenne Turbo. Excellent condition.

21 in Cayenne Turbo wheel as used on 2008 Cayenne Turbo. Refinished by RimPro to repair minor scratches, in original Porsche box with RimPro paperwork. Looks new.

Four Ralph Boothe Design large black wheel center caps with Porsche factory hood emblem as crest. New old stock. Purchased for 993 Turbo S but will fit other models.

All priced to move. For details, photos, prices: email **to** [frboswell@gmail.com](mailto:frboswell@gmail.com).

**Seats for Sale:** These seats are from a 1987 Porsche 944 n/a. Driver seat is powered, passenger is not. Both seats are in very good condition. There is some slight separation at the front of the seats but that is it. The leather is in very good condition as these seats have been stored in a heated basement the last 10+ years. These were pulled from a car converted for club racing. \$500 or Best Offer: Contact Gary Wielgoszinski @ [garyw944@comcast.net](mailto:garyw944@comcast.net)



**For Sale:** 1984 Porsche 928S - rare 5 speed, collector quality, excellent condition, dark burgundy, on rare black leather interior with white leather door centers and seats. Owned since 1990, always garaged, no winters, no rain or track, 100% original, new C2 928GT 17 x 8.5 & 17 x 9.5 wheels. Paint, body, glass, door jams like new. Sun roof, all options, no accidents, no bodywork. New brakes/slotted rotors, new battery, fuel pump relay and Bosch alternator. Runs strong and sounds great. Approx 76k miles. These survivor 982S 5 speeds are going up in value, add this one to your collection. Asking \$13.9k please call 978.239.8789.



**THE MART**  
Your For Sale Items Here... Be Sure to Send  
Them In To: [Ivy@thunksreviews.com](mailto:Ivy@thunksreviews.com)

**For Sale:** 2002 Carrera4 Silver/like new Black Power Top, 68,900 mi. Tiptronic transmission w/Manual Option & PSM. ABS brakes (like new) & IMS Bearing Upgrade, & a new Cruise Control system. Optional Bose Surround Sound, & GPS. Also includes: 4 Pirelli snows mounted on "Porsche wheels;" top down windscreen + 911 Car Cover. Mint condition, & excellent drive. Always garaged. Have maintenance records. Asking \$26,500. Jack Saunders, osaunders@myfairpoint.net, 603-536-4275.

**A (true) 3**

**A (true) 2**

**D 1**

**Answers to the test on page 13**

---



**BTW**



A fellow NCR member has just taken delivery of a new 991.2 Carrera 4S.

**Initial reaction:**

Although still in the break-in period, I can tell you that the car is nothing short of amazing in all respects! Love it!!

We plan to have a more detailed article in our March issue of *Northlander*.

## AD INDEX

|    |                                        |
|----|----------------------------------------|
| 5  | Andover Periodontics                   |
| 9  | Autowerkes Maine                       |
| 25 | Black River Design                     |
| 9  | Exotech                                |
| 5  | Exotic Car Club of America/James Smith |
| 41 | Green Mountain Performance             |
| 10 | HMS                                    |
| 11 | Kachel Motor Company                   |
| 38 | Precision Imports                      |
| 2  | Sports Car Services                    |
| 38 | Stuttgart Northeast                    |
| 21 | Thunks Reviews                         |

Inside Back Cover EPE

Outside Back Cover Mallard Insurance

***If you wish to advertise in Northlander please contact: Matt Romanowski, pastpresident@ncr-pca.org***

***All advertising fees are payable before the advertisement is placed in Northlander.***

### Northlander advertising rates:

Back Cover ½ page - Color \$960/yr.

Inside front cover:

Permanent (non-rotating) \$125.00/mo. \$1250/yr.

Inside back cover: Permanent (non-rotating) \$125.00/mo. \$1250/yr.

Full page \$960/yr.

½ page \$600/yr.

¼ page \$500/yr.

1/8 page/Business Card \$150/yr.

Advertising fees are billed and due annually in either February or July. New advertisers may start part way through a year on a pro-rated fee basis. Advertisers are responsible for preparing and providing ad ready copy to the Northlander Editor by the 15th of the month before the month when the ad will begin. Thank you

## BTW



Lisa Roche  
Joe Kraetsch  
Miriam Dunster



Hank Cowles  
aka Big Cheese  
and Lisa



Judy Hendrickson  
Ivy Cowles



Kelley Moore  
David Churcher

On January 6 the NCR Porscheophile Gourmands Group held their annual get-together at The Tuscan Kitchen in Burlington Mas.

Great food, fine wine, and excellent company was enjoyed by all of us.

## NEXT MONTH

Yankee Swap

And ... much much more.





**These days, with Photoshop, CGI and the myriad of ways a photograph can be altered, we believe it is very important to occasionally take a moment and appreciate natural beauty...**

The above photograph was taken while Tom's 2003 911 turbo was in for routine maintenance. European Performance Engineering has been caring for Tom's cars since 2009... oh, by the way,

Tom's wife's vehicle, a 2004 Cayenne turbo has traveled 310,000 miles... so far.

So, the next time your Porsche, car or truck needs maintenance be sure and give us a call.

My staff and I would be happy to go "the extra mile" with you.



508-651-1316



Find us on Facebook - [www.facebook.com/EPE-European-Performance-Engineering](http://www.facebook.com/EPE-European-Performance-Engineering)

165 West Central St. Natick, MA

[epe.com](http://epe.com)

# NORTHLANDER

Volume 40 Number 1 January / February 2017

Laura Futterer  
218 Cranberry Meadow Rd  
Berwick, ME 03901

Change Service Requested



PRSR STD  
U.S. Postage  
PAID

Portsmouth  
NH  
Permit #60



## BECAUSE BABIES *need* SPECIALISTS

Hagerty specializes in collector cars and their adopted parents. Both deserve pampering – care and expertise you won't find in the practices of general insurance companies. Call your local Hagerty agent below for a consultation. The doctor is always in.



**MALLARD INSURANCE**  
Auto • Home • Life • Business

Michael A. Bernier

5 Coliseum Avenue  
Suite 303  
Nashua, NH 03063

603.943.7257  
F 603.943.7259  
michael@mallardinsurance.com



Classic Car Insurance™