

©2007 Porsche Cars North America, Inc. Porsche recommends seat belt usage and observance of all traffic laws at all times.



Holds corners like a staple

Prepare for sensation overload. Instantly familiar lines. Surgical handling. A legendary rear-mounted powerplant. Visit us today for a one-of-a-kind test drive. The sky is the limit.

The 911 Carrera. Now in stock. Scheduled to open January '08!



STRATHAM PORSCHE Rte. 33, Portsmouth Ave Stratham, NH 03885 dover.porschedealer.com



February 2008 2 Northlander



Editors

Tracey Levasseur 207 247 3385

Northlander@ncr-pca.org

David Churcher 603 799 4688

Northlander@ncr-pca.org

Advertising

Matt Romanowski 603 674 3250 advertising@ncr-pca.org

Web site

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 1st of the month preceding the publication month. See page 36 for advertising rates.

North Country Region Volume XXXI Number 2

Porsche Club of America February 2008

Upcoming Events

3 Calendar

Features

8 With a little help ...

14 Diary of a DE addict

18 Upfixin the 550 and

the 547

26 Old Porsches ...

27 Hybrid drive



R

Departments

2 Board of Directors & Committee Chairs

4 Editors' Desk

5 President's Message

7 Membership

12 Drivers' Ed

34 Business Card Exchange

30 Safety

35 The Mart

36 Advertisers' Index



19



26



Cover European Collectibles Costa Mesa California

David Churcher

Photo credits:

Photo credits are noted on the pages with the photographs

BOARD OF DIRI	ECTORS Miriam Dunster	(U) (CO2) CEO OEO2	procident@per pea org
		(H) (603) 659 8592	president@ncr-pca.org
Vice President	lvy Leonard	(H) (603) 380 3782	vice-president@ncr-pca.org
Secretary	Paul Tallo	(W) (603) 594 9696	secretary@ncr-pca.org
Treasurer	Pete Petersen	(H) (207) 646 5402	treasurer@ncr-pca.org
Past President	Janet Leach	(H) (603) 433 4450	past-president@ncr-pca.org
Membership Chair	Lisa Roche	(H) (978) 534 0118	membership@ncr-pca.org
Newsletter Editors	Tracey Levasseur	(H) (207) 247 3385	northlander@ncr-pca.org
	David Churcher	(H) (603) 799 4688	northlander@ncr-pca.org
Webmaster	Dick Demaine	(H) (603) 560 4911	webmaster@ncr-pca.org
COMMITTEES			
Advertising Manager	Matt Romanowski	(H) (603) 674 3250	advertising@ncr-pca.org
AutoCross	Joe Kraetsch	(H) (978) 534 0118	autocross@ncr-pca.org
Car Control Clinic	OPEN		
Charity	Paul Tallo	(W) (603) 594 9696	charity@ncr-pca.org
Chief Instructor	TBA		chief-instructor@ncr-pca.org
Concours	Judy Hendrickson Lisa Roche	(H) (603)881 7576 (H) (978) 534 0118	concours@ncr-pca.org
Drivers' Ed	Paul Frucci	(H) (603) 491 2265	drivers-ed@ncr-pca.org
Rally	Don Johnson	(H) (603) 569 3337	rally@ncr-pca.org
Safety	Edgar Broadhead	(H) (603) 526 6578	safety@ncr-pca.org
Senior "Advisors"	Edgar & Nancy Broadhead	(H) (603) 526 6578	EdNan@TDS.net
Social	lvy Leonard Steve Robbins	(H) (603) 380 3782 (H) (877) 792 7861	social@ncr-pca.org
Technical	Jack Saunders	(H) N/A	tech@ncr-pca.org
Yearbook 4 Northlander	David Churcher	(H) (603) 799 4688	yearbook@ncr-pca.org Febi



9

23

FEBRUARY AT A GLANCE

Date	Event Information	Contact
Feb 9	Tech Session 2 PCA Tech Chair Speaker (TBD), Porsche of Stratham, Stratham, NH	tech@ncr-pca.org
Feb 23	Tech Session 3 Timing Belt Change-out, Sportscar Workshop, Kennebunk, ME	tech@ncr-pca.org
Mar 1	Zone 1 Tech Tactics, FarnbacherLoles, Danbury CT	
Mar 29	Tech Session 4	tech@ncr-pca.org
	Meredith Harley-Davidson shop tour, Meredith NH	
Apr 12	Tech Session 5	tech@ncr-pca.org
	Precision Imports: OBD II, Manchester NH	
Apr 30, May 1	Driver Education 1, NHIS, Loudon NH	driver-ed@ncr-pca.org
May 4	Spring Rally, TBD	rally@ncr-pca.org
May 16, 17, 18	Zone 1 Concours & Rally – Corning NY	
May 24	Autocross # 1, Devens, Ayer MA	autocross@ncr-pca.org
June 21	Autocross # 2, Devens, Ayer MA	autocross@ncr-pca.org
July 19	Autocross # 3, Devens, Ayer MA	autocross@ncr-pca.org
Aug 15, 16, 17	Driver Education 2, NHIS, Loudon NH	driver-ed@ncr-pca.org
Aug 10	Autocross # 4, Devens, Ayer MA	autocross@ncr-pca.org
Sept 14	Autocross # 5, Devens, Ayer MA	autocross@ncr-pca.org
Oct 11, 12	Oktoberfest, Gilford, NH, Gunstock Mountain Resort	
Oct 13, 14	Driver Education 3, NHIS, Loudon, NH	driver-ed@ncr-pca.org
Nov 9	Annual Banquet (30 yr celebration), TBD	social@ncr-pca.org

Please note: calendar information is correct at the time of **Northlander** going to press but for the latest information you should check our web site: **www.ncr-pca.org**

February 2008 5 Northlander



Tracey Levasseur

Over the past decade or so there has been a surge in the number of vanity plates affixed to vehicles. And these plates have evolved from simply the owner's initials to more creative announcements and personal interests. When I commute and get stuck in traffic and at stop lights there's nothing I enjoy more than reading these "tags." Some people are really quite clever.

The vanity plate is not a new concept. I don't know when the first personalized license plate was produced but I remember one of the first I saw was our friend's OLD NO7. I was only about 12 years old at the time and never new why she had that on her plate. To me, Old Number 7 was Mad Jack's donkey in the television series *Grizzly Adams*. Later I realized this friend's alcohol of choice was whiskey, hence the reference. But that was the first time I'd seen something other than initials and that is probably why I enjoy spying vanity plates with clever sayings.

Some plates are descriptive of their owner: PHAT JOE, LUSH US, KUP CAKE and BG JHNSN (yes, this one exists!). Others are possessive: DEB'S TOY and PAMS CAH (this one was obviously on a Maine license plate). There are drivers who proudly display their heroes: 24

JEFFG, NO3, DMAGIO and SOX FAN. And some choose to honor a higher power: I BELIEV, HE AROSE and MY JESUS.

With so many different vanity plates taken, people have become quite humorous, using sayings and clever combinations of letters and numbers: WHATEVR, THATLDO and PB4 UGO. There is one gal I on my daily commute, CPAMGO, who unfortunately went too fast one morning and was pulled over by the law.

Sometimes the plate fits the car more than the driver: a flashy yellow Corvette driven way too fast around my town sports a VROOOOM plate. There's a huge stepside truck with monster truck tires whose owner admits to being ON M-T. GOTOPLS labels my friend's Mustang...a convertible of course! And recently I caught up with a student driver in New Hampshire, the driving school cleverly using the plate UH-OH.

Regardless of the reasons why people get vanity plates, I am grateful that while stuck in an endless line of immobile traffic I can look around and decipher these interesting metal signs. And I'm sure many of you probably feel the same way. So thank you all who personalize your tags.

Tracey



David Churcher

You might well ask why is it Tracey and David both are making an editorial this month instead of taking turns. It is because of white space. I do like a lot of white space in the magazine design but I need to control it. This month, as we prepare the February issue, Tracey and I have some unusual circumstances to deal with. I have just returned from a trip across the country to the sunshine and Tracey has just departed for her turn in the sunshine. Our usual coordinated style has been disrupted.

Mentioning magazine design I must relay some of the discoveries I made on my trip. I no longer just look at magazines for content but also for their design. While in LA with my friend Ray I devoured his magazine pile. Ray and I used to run marathons years ago but now we hang out with the runners at the HHH and remember those years while

testing micro brews. Ray has developed a passion for 1940s Chevy trucks ... he restores them, puts in a big V8, and wins prizes. His favorite magazine is: The Rodders Journal ...www.roddersjournal.com ... It is not Porsche but it is excellent and the photographs are wonderful. Another find was Desert Living ... www.desertlivingmag.com ... They are both worth a look.

Before I departed on my trip I had an outline of the article in this issue on Rainer's 550 project. Snow storms had defeated me from getting to visit Rainer and finish the article. The pressure was on and the panic beginning. Tracey was using lunch hours to proof articles and we were both feeling pressure because we seemed to be behind schedule and with too much white space at our disposal. In the last minutes of last week columns and

continued on page 31 ...



Miriam Dunster

Well here it is the second month of the New Year and I am already procrastinating over writing my column. This is too soon to have this happen. Do I chalk this up to the winter doldrums brought on early by the excessive amounts of snow in December or am I just experiencing the drain of the holiday season. Well if truth be told my main reason for the procrastinating is the lack of a creative idea. I am not promising one either with this column. Just some scrambled thoughts.

It is in early January the political craziness is now over and the next large snowstorm is on the horizon. As I stubble to start this column I am reminded of some stories told the other evening over dinner with some fellow NCR members. The stories made me wonder if it can ever be too early to start a young mind on the path to thinking they should drive Porsches. We all know that there are many Porsche cars in reduced scales for the use of children. One story contained this type of car: upon receipt of the Barbie Porsche their granddaughter put down the convertible top and placed her doll in the passenger seat and then began putting her own foot into the car. Of course you can imagine the surprised comments in the room when this was witnessed. When asked what she was doing the granddaughter looked at everyone and very seriously replied she wanted to drive her Porsche just like Oma does. That was not the only story that had everyone laughing that evening. As most of you know our Vice President, Ivy Leonard, has a signature color. Ivy shared the story that when her granddaughter Keona, 3 years old, was asked by the preschool teacher what crayon color she was using her response was 'Oma's Porsche'. Most of you know that the crayon color was yellow. So now you decide can we influence children too early?

Well back to business, the Board finally held the 2008 planning and budget meeting and we have preliminarily outlined the calendar of events. The calendar can be seen in this edition as well as on our website, www.ncr-pca.org. As you will see we do not have a Car Control Clinic event on this calendar. Reason is that we are lacking an event chair to coordinate the activities and volunteers to support it. If any of our members believe this is a very important event to continue with I strongly suggest that you step forward and volunteer to be the chair. Other chair members will support this individual by either securing a site or necessary volunteers to teach the skills presented at this type of event.

Speaking of events most of you know the National Parade is coming back to the east coast this year. NCR's own Rally chair, Don Johnson, is in charge of the checkpoint captains for the Rally event. If you are planning to register for this event and would like to do your working requirement at the rally event please contact Don to be a resource for checkpoint captains. Don will be conducting a training session for volunteers for these positions prior to the Parade. It would be nice if NCR could pull together again and show everyone what a small region can do. NCR has supported events at other parades as in Lake Placid, Mt. Tremblant, and Hershey. Let's add Charlotte to the list.

Our own NCR calendar looks very strong with Technical sessions this winter. We are showing various Driver Education events at a number of tracks. Autocrosses are on the calendar for almost each month of the driving season. You will see a Rally each season but winter. Lastly we will sprinkle in social events like dinners, ice cream runs, and the annual banquet. There should be a least one event that should interest every member in the club.

So come on out this year and meet your board and fellow NCR members.

I am looking forward to the driving season. Hope you are as well.

Miriam

©2008 Porsche Cars North America, Inc. Porsche recommends seat belt usage and observance of all traffic laws at all times.



Make your Porsche dreams come true.

Porsche of Nashua

(800) NEW PORSCHE 170 Main Dunstable Road Nashua, NH 03060 www.porschenashua.com



USED			
`04 Carrera Coupe Tiptronic	Arctic Silver/Black	P80561	\$49,900
`07 Cayman	Guards Red/Beige	P7076L	\$43,900
`04 Cayenne S	Green/Beige	P80241	\$35,900
`06 Cayman S	Black/Black	A80471	\$51,900
`06 Cayenne Tiptronic	Meteor Grey/Black	U3714	\$43,900
NEW			
`07 Cayman S	Black/Sand Beige	P7022	\$51,991
`07 Cayman S	Speed Yellow/Black	P7074	\$71,577
`07 Cayman	Arctic Silver/Grey	P7036	\$49,226
`07 Carrera S	Midnight Blue/Grey	P7018 (Demo)	\$81,900
`07 Carerra S	Meteor Grey/Black	P7106 (Demo)	\$83,500
`08 Cayenne S	Meteor Grey/Black	P8021	\$67,739
`08 Boxster	Midnight Blue/Beige	P8042	\$49,992
`08 Carrera Coupe	Basalt Black/Black	P8080	\$79,900



Lisa Roche

New Members:

Ryan Marcouillier Richard Marcouillier Manchester, NH - 1973 914

Thomas Duby Jennifer Goss Duby Enfield, NH – 1983 911SC

Member Anniversaries:

1 Year:

Michael A. Corbett Robert J. Corbett, Sr. Loudon, NH – 1987 911

Jeffrey D. Forsyth Susan Forsyth Amherst, NH – 2002 911

Philip O. Jefferson Cambridge, MA – 1988 911

Arlen M. Rasco Bedford, NH – 1984 911

Carl B. Schulz Kathy Sirah Brookline, NH – 2004 Boxster S

Jeffrey P. Sullivan Auburn, NH – 1992 964

Don Vandenburgh Nashua, NH – 1985 944

J. Paul Welch Susan Welch Newton Upper Falls, MA - 2006 Boxster

Phil Zarrow Rose Zarrow Durham, NH – 1985 911 Carrera 2 Years:

Thomas C. Bryant Marybeth Bryant Wolfeboro, NH – 1989 911

5 Years:

Hank Black Lunenburg, MA – 1987 924S

James R. Demers Olga Demers Derry, NH – 1992 968

10 Years:

Thomas J. Brassard Susan Brassard Colchester, VT – 1984 911

Mike Eisenberg Diana Eisenberg Melrose, MA – 1995 911 15 Years:

Matthew C. Blast Catherine A. Blast Groton, MA – 1983 911RS

Bruce Whittier Jennifer Whittier Manchester, NH – 1980 924

20 Years:

George W. Cook Ann M. Cook New Hampton, NH – 1962 356B

With a little help ...

Kevin Bobbitt

Once you get everything apart it really only goes back together one way ...

It all began at the Glen – turn one of my last lap of my last run group at the Zone 1 event. I stepped on the clutch as I was braking, beginning my shift down two gears just prior to turn in. I pushed the shift lever forward but I couldn't find my gear. So I tried pushing again, and again nothing. I quickly checked my mirrors again to make sure no one was closing rapidly, thankfully no one was near. As my heart rate went up I thought about what all of my PCA instructors over the years had told me to do when something doesn't go as planned – don't panic!

I kept my 944 S2 on line through the corner so as not to do anything too abruptly. Once I exited the corner I pulled off line. I continued to try and find a gear as I was coasting down the hill. By the time I got to the bottom of the hill I still hadn't found a gear and now I realized there was no place to pull my car off track! As I came to a stop I whacked the shift lever forward as hard as I could, partly out of frustration and partly out of desperation. This time it worked. I had found first gear! I checked my mirrors and looked for a flagger. No cars in sight so I slowly pulled forward limping back to pit lane. I managed to force my way up to third gear by the time I got to the bus stop.

I pulled into the paddock and my crew chief (my father) asked how my run was and I told him what happened. We looked under the hood and under the car and found nothing that looked out of place so we took the car for a short drive around the paddock. Shifting was difficult but nowhere near as bad as it was in turn one. As I debated if I should drive all the way back to Merrimack with this problem or hire a wrecker my father offered me a tow. He unloaded his SuperCup car and loaded my car. He towed me seven hours home, spent the night and then drove

back to the Glen to pick up his car and drive home to Virginia. Can you say Father of the Year! Thanks again Dad.

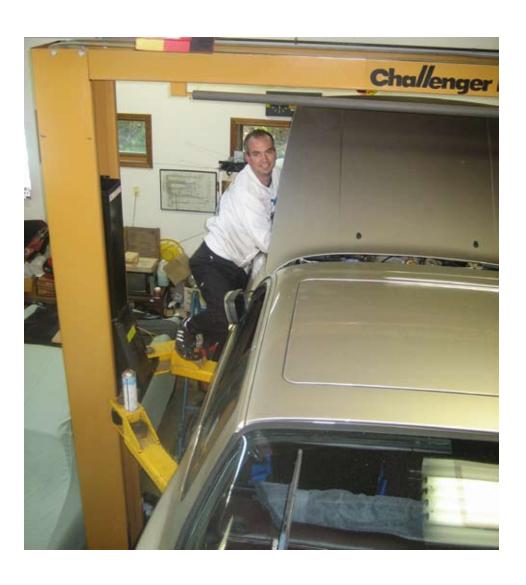
After consultation with everyone I know and some I didn't I concluded my clutch was shot. It was fitted with the older, rubber center clutch and these were textbook symptoms of failure. After pricing out a clutch job I decided I would try to do this myself ("myself" actually means with the help of a half dozen club members, my father and a certified mechanic).

Judy Hendrickson offered her garage lift, Edgar Broadhead offered his transmission jack and many others offered ideas and strategies. Next my father came back to NH specifically to help with the job. I prepped the car a bit before he arrived by removing the exhaust and some other miscellaneous parts. My father had consulted with his mechanic Robert in Williamsburg, VA prior to visiting. Robert actually loaned us some tools and extra parts that he thought we would need, and boy did we need them! He also made himself available via phone for questions.

My father and I spent two full days under, inside and on top of my car before he had to leave. I was able to finish the job the following weekend in a couple of hours. The job required more patience and muscle than technical ability. Once you get everything apart it really only goes back together one way. Just make sure you connect your ground wires correctly if you want the car to start – ask me how I know some time.

I really want to thank everybody who helped – Judy, Edgar, Robert and especially my father. I saved a ton of money doing it by 'myself' and learned a whole lot about my car.

The project begins.



Kevin and "Father of the year" work under the 944 in Judy Hendrickson's garage. Note that look on Kevin's face.



Photographs on this page by Judy Hendrickson

February 2008 11 Northlander



Judy Hendrickson

For 2007 we summarized issues from 1978 (our first year) and every 10 years thereafter. For 2008, we will be looking

LOOKING BACK

through Volumes 2 (1979), 11 (1988) and 21 (1998) for the particular month concerned and selecting an article of interest for reprint.

Our selection this month comes from Volume 11, Number 1 (January/February 1988). I selected this article not because I was the co-author, but because it highlights the fun and experience of a Porsche Parade. The Parade this year is in Charlotte, NC, June 28-July 3, 2008. Keep an eye out for the opening date for Registration (it will be in *Panorama* and the PCA website, www.pca.org) as you'll want to register on opening day to ensure a spot – it has been three years since we had a Parade on the east coast and it could be a sell out, making opening day registration a necessity.

"Porsche Parade"

Dallas/Fort Worth 1987

By Doug & Judith Hendrickson

This was a good one. The weather, which intimidated a lot of people, was not as oppressive as one would have expected for Dallas in July. This was our ninth parade, with a generous sprinkling of new folks (Dallas/Houston) and a bunch of the "old heads" that are perennial parade goers like us. The Gowens (DOWNEAST) trailered a 356 but, other than them, we seemed to be the only other northeastern car at the parade. We did everything – Concours, Rally, Autocross, and Tech Quiz. The Parade people acknowledged that with neat cloisonné pins that said you were a "SPECIAL AWARD" person. I really believe that's what Parades should be all about – taking part in all the events.

The getting there and back was (almost) half the fun. We drove through eight different states without really paying attention to their posted speed limits.

With the Passport "armed" we probably evaded four real traps in 3700 miles. Granted, on the way down we probably went through a lot of police jurisdictions that had let their people off (July 1 and 2) in anticipation of the upcoming holiday. (For those who care, the following states still post 55: MA, NY, PA, MD and VA; at 65 are WV, TN, AR and TX.) We drove a constant 80 indicated which translated to 76.4 by the stopwatch. In spite of our highway indiscretions we didn't set any cross-country speed records. We stopped frequently for coffee, food, gas and my "intolerable" cigarettes. (The eight-yearold lighter and ashtray are still virgins.) Average gas mileage by the way was 21.7 without air conditioning and 20.7 with. Not too bad given the tempo stat setting of 80.

Neither Judy nor I was able to get time off from work to properly prepare a car for the concours. I made a feeble attempt in the three days before we left to touchup a few areas that needed preservation (half shafts, a-arms, skid plate, etc.) but we left with no intention of entering the concours; in fact, at registration we withdrew our pre-registration for the concours. Then we looked at the computer printout. We noticed that only one other car besides us had preregistered. That convinced us, along with seeing all our old fellow concours types working away in the garage that we shouldn't let someone win by default. A little healthy competition is good for the soul -- even if we knew we couldn't be very competitive with starting on Saturday before Monday judging. We washed the car Friday night in the communal car wash and took it into the darkened bowels of the car park. We didn't have half of what we needed to really be serious about campaigning a car. But, that's where the Parade spirit comes through. Dave Seeland, a ROCKY MOUNTAIN 356 Speedster type, lent us two of his jack stands and assorted wrenches. We proceeded to spend Saturday and Sunday (day and night) on and under the car. The paint (my department) is still good and

If you ever travel south on I-81, stop at the Johnny Appleseed restaurant about 40 miles south of Roanoke, VA. The complimentary apple fritters are great!

THE 32ND PORSCHE PARADE



Judy did a fantastic job in the interior. (The engine was another matter, we'd welcome any tips on how to get to the nooks and crannies in a 911 SC engine compartment.) We drove it over to the Bear Creek golf course concours site, a fairway setting as good as I've ever seen, at 6:00 A.M. Monday morning. There from Minnesota was the only other concours prepared Talbot Yellow 911 SC I've ever seen at a Parade (or elsewhere for that matter). It was a 1978 coupe. There was also a white 1983 coupe sporting Rio de Janeiro tags. The scoring was close but after the age and mileage points were added we'd won the class! The losers made it interesting by protesting our mileage bonus. They were misled by the Florida plates. My driver's license shows that we live in Nashua, New Hampshire so nothing changed in the scoring. Guess some people aren't familiar with the general practice in the east of registering cars in places other than where you live full time nor the military practice of maintaining license and tag in your home state regardless of where you live (the latter being our case).

This year the Rally was held on Tuesday, instead of Friday, as has been the norm for Parades. It was the opposite of the type of Rally from the 86 DOWNEAST event. Very tough, full of traps and confined to repeat coursing around the towns of Grapevine, Lewisville and Flower Mound. It didn't go anywhere! In fact the 100 plus miles never took us more than 15 miles from DFW! We did miserably; never did find the second checkpoint, rejoined the rally at the third checkpoint and accidentally drove into the final checkpoint (after we thought the rally was over) and accumulated over 2200 penalty points. However, we were still in the top 20% of the unequipped class.

The driving event was also different. Two courses were set up in the Trader's Village parking lots. This is the site where Dick Turner teaches his National Academy of Police Driving and Autocross Schools. Each class drove on a course with class winners and anyone within a second of the winner's time eligible to run-off on the other course solely to compete for Top Time of Day trophies on the aggregate time on both courses. We got to drive the "road course," fast sweepers and up to 60 plus MPH. The other course was a convoluted gymkhana that I'm glad I didn't drive. We didn't do well at this event either, but we had a ball slithering around. One observation: it seemed that most of the production class "hot shoes" were on Yokohama A001 R or A008 tires.

Hmmm. (My P7s weren't all the problem though, as I took out two pylons on my last run.) Judy improved her second run but we were definitely out of trophy contention.

The tech quiz was also held out of sequence for a Parade -- on a Wednesday afternoon (usually it's held on Saturday morning) -- and it was delayed for over two and a half hours so the late finishing auto crossers could make it. In spite of the organizers' attempts to finish the autocross by 1:00 P.M., it was 4:00 P.M., before we left the track area. Most of the delays revolved around the computer software that kept losing the database.

COMMENT: Every year the host region reinvents the wheel in its computerization of scoring systems. The yearlong debugging for this event still left some boo-boos in place. (ie., Rally scores were initially indexed one digit away from the actual car number, driving event results put everyone in the wrong region). PCA National should select software from a previous parade that has matured and provide it (with documentation) to the next host region. A transportable program that would run on PC compatibles would be my choice. (This Parade used DEC equipment)

The banquets, cookouts, etc. were great! We happen to like TEX-MEX and chuck wagon fare! The final night's banquet ended rather early so we gathered in one of the hotel bars with old friends from past Parades, particularly Harvey and Linda Smith from DIABLO (California) and Ms. Isle Nadele, the factory's club coordinator. We also accepted a challenge to take the table centerpiece home to nurture and return it to the Parade next year in Colorado Springs. We had to do it! The flowers are Talbot Yellow chrysanthemums.

All in all, it was a very good Parade and a great time. The organizers spent a lot of time in having family-oriented activities — Wet and Wild, Dude Ranch, etc. We've never had a bad time at a Parade. We'd love to see some other NORTH COUNTRY folks join us in Colorado Springs 24-30 July 1988. ROCKY MOUNTAIN and ALPINE MOUNTAIN regions really know how to put a fun week together and how could the scenery be better — Pike's Peak and the glorious Rockies.

P.S. If you ever travel south on I-81, stop at the Johnny Appleseed restaurant about 40 miles south of Roanoke, VA. The complimentary apple fritters are great!

February 2008 13 Northlander



Paul Frucci

These coordinated events provide the true track junkie the chance for 24 days of driving on 7 different circuits ...

Well our 2008 calendar is finally done. This year we have organized a coordinated calendar between North Country (NCR), Northeast (NER), and Upper Canada (UCR) regions of the PCA. These coordinated events provide the true track junkie the chance for 24 days of driving on 7 different circuits; including the first ever PCA event at the brand new New Jersey Motorsport Park. I am particularly pleased that we were able to set up Mont

Tremblant and Calabogie one day apart so we can have a week in Canada again. For those of you who did this with us last year, it was a great week, with one day in between events for travel. Camp NCR will rise again in 2008!

Here is the schedule:

Event Date	Days	Track	Host
Ap/May 30*/1	W-Th	NHIS	NCR
Novice program on the 30th May 21 st	Wed	NHIS	NER
Advanced day June 4 th July 7 – 9 th July 11-13 th July 23-24 th Aug. 2 -4 th Aug 15 th	Wed M/Tu/W F/Sa/Su W/Th Sa/Su/M Fri	Limerock Mt Tremblant Calabogie WatkinsGlen New Jersey MP New Hampshire	NCR NER UCR NER NER NCR
Advanced day Aug. 16-17 th Sep. 4 th Sep. 20-22 nd Oct. 13/14 th	Sa/Su Thurs Sa/Su/M M/T	New Hampshire New Hampshire Mosport UCR New Hampshire	NCR NER NCR

For those who have never done a DE, we will host a "Novice Day" on April 30th in lieu of the Car Control Clinic which we normally host, with assistance from NER. The day will include special programs for those who have never attended a Driver Education event including car control clinics on a skid pad and slalom course, as well as extended classrooms in performance driving techniques. Note: This day is also open to everybody else at any skill level.

We are also very excited to offer our inaugural "Instruct the Instructors" day hosted by NER to be held on May 21st. In Coordination with experts from Bertil Roos Racing School we will be running a full day of training in instruction, instruction aids and in-car techniques. The event will include classroom sessions, trackside workshops, in-car coaching and a track walk -- all aimed at making you a better instructor. A more traditional DE program will be offered for advanced solo drivers. Green and Yellow drivers will not be able to attend on this day.

The coordination of the 3 regions' schedules means registration may be

a little more complicated than you are used to. Unfortunately, we are not yet sophisticated enough to have shared data across all three clubs (although we are working on it for 2009) and so you will need to register yourself both as a driver and for specific events through the host regions website. And to further complicate the matter, we have a new registration system for 2008. North Country Region has replaced the existing DE and Autocross registration system with MotorsportReg.Com. Beginning March 1st you will be able to register for all North County Region events that require registration by visiting their site. To get ready for the new season, you should go to their site today and set up your profile. Emails have been sent out to each entry in the retired registration system with the details stored in that system. For those of you that participate in events with other clubs, you may find that you are already in their database.

I hope you are as excited as I am about our 2008 season. As always, I welcome your feedback at: de@ncr-pca.org

FOREIGN CAR SERVICE AND REPAIR: PORSCHE, AUDI, BMW, VW, ETC.

personal, exceptional service

AIR TALBOT MOTORS serving the seacoast since 1984



oil and filter service **NH State inspection** scheduled maintenance tire services alignment corner balancing/ride height

Your car care alternative www.blairtalbotmotors.com







89 Industrial Park Drive Dover, NH 03820 www.blairtalbotmotors.com tel 603-740-9911 fax 603-740-9914 e-mail_talauto@aol.com

DIRECTIONS: I-95 to Spaulding Turnpike, exit 8W (sign reads: Madbury); RIGHT at lights onto Rte. 9/Littleworth Road; over bridge; 1st LEFT onto Industrial Park Drive; after bend, #89 Industrial Park Drive on right. WELCOME.

Diary of a DE addict: First event

Charles Young

2/23/07 (morning)

As Susan and I were about to finalize our purchase, at Weissach Autohaus, of a 2003 911 C4S (oh, boy!) I overheard Phil Cracco and Gary Radocchio talking with enthusiasm about the upcoming DE season. "DE? What's that?" They asked me whether I was kidding. I had no clue what they were talking about. So they told me. I asked them whether THEY were BS-ing me. Yeah, right, drive a Porsche at Lime Rock, Watkins Glen, NHIS, Mont Tremblant. Sure. Uh huh. But they insisted that DE really existed and were very convincing. I wanted very much to believe Phil; after all, I was about to hand him a mini-mountain of money. But I didn't know Gary, and frankly, this felt so much like a set-up, and there was this mad-scientist gleam in his eyes, the word, shill, entered my mind. Fortunately, evervigilant Susan had found a stack of current Challenge magazines and discovered a page showing the DE schedule for 2007. There it was. Proof. In print. She obviously did not realize what she was doing when she showed me that article. HA! TOO LATE! Driving fast, on great tracks, in my -- our – Porsche. Oh, boy!

2/23/07 (afternoon; just got home)

Let's see...www.cvrpca.org. There it is for sure—they didn't lie— drivers ed. YES! Click. Stuff to read, including CALENDAR. March 30 and 31, CVR DE at Lime Rock. Admission OPEN. Oh, boy! Oh Susansweetiehoneydarlingsugarplum. Do you have a minute? Register. Hmmm... nice web site. That was easy enough.

2/25/07

Waitlisted? HUH? Nonononononononono.

This is no way to treat a new member.

3/5/07

Accepted (after an interminable, misery-filled period of fingernail-biting torment – sorry Sue…but I bet they'll grow back). Oh, boy!

3/7/07

It's time for the first working visit to Hairy Dog Grrrage and our perfect 911's first tech inspection, including the installation of a fire extinguisher. Fire?!

Look at all the cars. Look at all the cars with numbers and graphics. Oh, boy. What does the letter *E* after the number mean? What happened to that car? That's some nasty impact. Mobil 1? Super Blue? Should we put a roll cage in? Do these tires make sense for the track? What about stone chips? With a barely-perceptible roll of his eyes, Dan Jacobs, soon to be added to those with direct access to our bank account, said quietly, "For now, drive the car as it is, Charles."

Was that quiet chuckling I heard, coming from the direction of Scott, Bela, and Adam?

Before leaving the Grrrage I was introduced to Dave Bassett, the unfortunate man who was to be my first instructor. He suggested that I get a little experience in the car on the road, before taking her on the track; great advice that I was happy to follow. But did he really mean that I should drive very fast on public roads? No, probably not...okay, I'LL DO IT!

3/8/07 - 3/29/07

I have now downloaded and studied everything from the CVR web site that pertains to driving in DE events and at Lime Rock. The map of the Lime Rock track is firmly visualized in my mind's eye, and I have memorized Jim Adelman's written description for driving the line. I have assembled some tools, purchased a new helmet – my last motorcycle helmet and most of my hair being long gone and have reviewed the procedure for arriving at the track a gazillion times. Yes, without a doubt, I am totally confused and have not even driven through the gate. Among the final details to resolve were lodging. Because we live an hour and a quarter from the track, we (I) decided to stay in a hotel 40 minutes away to get a jump on the day. After a few events this misguided –and costly– strategy changed.

While waiting for March 30th to arrive Susan begins a daily ritual by asking whether I have had a chance to plan my next business trip.

3/30/07

4:30 a.m. The alarm. At warp speed I launch out of bed. Today's the day. Oh, boy! "C'mon Sue. We'll be late. Let's go. We can catch breakfast on the way." After all, that's why McDonalds invented the Egg McMuffin. Just for DE participants. "Hurry up!" How does this Porsche heating system work? DOES this Porsche heating system work? Wow, ice on the trees. Nervous energy? Not this guy. I'm mellow. "Susan, hurry, shut the door. We'll be late."

5:45

Okay, here we are, I think. The instructions said to enter through the Main Gate. That must mean the Outfield. No, can't be; it's blocked. We drive on and I remember another entrance from coming to watch races. There, that must be it. It says Main Gate. Very clever, hiding it on a signpost. We joined the line of a few Porsches, Porsches on trailers, and enclosed car carriers behind trucks - it seems I am not the only over-eager soul. Waiting. Waiting. Waiting. 7:00 a.m. and the line starts moving. Sign the waiver. Okay, I had read about that. Following the others we go over the bridge and down the hill. This must be a dream. A fine morning and soon I'm going to drive on a famous racetrack. Am I smiling? No, that can't be possible. Just checking my teeth for remaining bits of sandwich wrapper. Where do I park? I'll ask that man (William Clayton) parking the vivid blue 911. Seeing my ear-to-ear grin he says, with a grin of his own, I can park anywhere I like and he asks me, nudging Gary Radocchio, whether this is my first time at DE. Gary gives me a wave, a wry smile and a knowing nod. I proceed to circumnavigate the Paddock three times, Susan continuously pointing out perfectly fine parking spots, before we claim prime real estate, directly in front of the Michelin Tower. Phewww. Now what?

Again, following other people, I walk up the stairs to the classroom. Am I in heaven? Is Nancie Giacalone an angel? She must be. Although she could be the feistiest angel I've ever met. Doing ten things at once and holding a few conversations at the same time, she is telling me to sign in and is strapping a wristband on me.

Green. Susan introduces herself to Nancie and asks her if she can help. Picking up a run sheet I head downstairs and back to the Paddock. Walking around, I am amazed at the diversity of Porsches and their owners, all getting ready for the event. For some reason I expected the cars to be stock, like mine. But many of these babies look and sound like racecars. Oh, boy!

7:30

After finding out that the line of cars on the other side of the building is a line awaiting Tech Inspection, I head there, too. Got my brand new Bell helmet next to me, sitting on a supple-leather cloud. Oops, forgot to pop the trunk and engine compartments. Rev the engine, tap the brakes, get told to keep my foot on the brake while the lug nuts are torqued, get a sticker on my windshield, and head on back to the Paddock, fighting the temptation to ease left and take a lap or two. Back in my parking space, I meet Rick Newkirk, who has arrived in a pristine, silver Boxster and has parked next to me. It's his first event as well and I feel good sharing with him the tiny bit of information I have learned about the registration procedure. Then I hit the rest room for about the 1,000th time that morning.

Drivers' Meeting in 10 Minutes is announced over the P. A. system.

8:20

Dave Bassett, the VP of DE, holds the Drivers' Meeting at the Michelin Tower building. The first thing he says is that the event is Driver Education, not racing, nor is it a timed event. To some laughs from the assembled drivers, he adds that there will be no trophies handed out at the end. He then describes the passing zones and in spite of all my study it seems that I have never before seen a map of the track and that he is speaking in tongues. He warns us against going too fast until our tires, our minds and the track have warmed up on this chilly, spring day. Dave lastly encourages all of us to have a lot of fun and a safe day and invites Pete Watson, the Starter, to go over the flags. During Pete's talk we are also told what to do in the event of a crash. A CRASH?! Afterwards, Green and Yellow run group drivers head upstairs for a classroom session.

8:40

In the classroom there is a noticeable buzz. It seems that we all want to get in our cars and set some kind of land speed record...or maybe that's just me, fully-buzzed-enough for everybody. Gary Hansen, the Chief Instructor, welcomes us all and warmly greets us first-time drivers. Then he goes over some of the basics: braking zones, proper cornering technique, including turn-in points, apexes and track-out points, the passing signals, passing zones, pit-in location and signal, and more. Then he tells us what to do if we are in a spin; BOTH FEET IN. Spin?! He tells us about BOTS and he points out the flagging stations on a diagram of the track. Finally, as we hear engines fire up for the first run of the day, he hands out cards with our instructor's names on them. Luckily, I have already met my instructor, Dave Bassett, and have seen him in action at the earlier meetina.

Countdown to Blastoff

9:32

Dave meets me at my car. Susan smiles and wishes me luck. I put my helmet on before getting into the car, and BONK! So that's why Dave waited until he was seated before putting his on. He hands me a microphone/earpiece and a tangle of wire and I take about five minutes to get it in place. He checks to see that it works and we head to the Staging Area, Dave in the driver's seat. I hope he knows how to handle one of these cars. Chatting while we are in line waiting to get onto Pit Lane, I ask him how his first run went and he tells me that he is not driving his own car today, due to a crash during a Club Race. Great! WHAT?! Thanks for sharing that with me. Okay, we have been given the signal to enter the Pit and get in line for our run. As we head past the Pit-In worker we show him our wristbands. Very cool!

9:44

After waiting a few minutes that seem like an hour, and with the White group coming back in on our right from their session, we are waved onto the track. Dave smoothly accelerates the nearly-pristine, low-mileage C4S -- with X51 Powerkit -- and heads towards the first turn, Big Bend, staying right of the Blend Line. He accompanies each precise

February 2008 17 Northlander

action by describing it to me through the earpiece, all the while driving smoothly around the track. The car feels great, like it's on rails. I'm relieved that he really knows what he's doing in one of these cars. Three laps and we're back on Pit Lane, parked on the right. My turn. Ohhhh, boy!

Sweaty palms, check. Fogged glasses, check. Loss of hearing;,check. Dry mouth, check. Seat adjusted back too far, check. Ready to go, you bet!

Deftly avoiding Pit Lane traffic – Dave spotted an oncoming car – I edge over to the left, towards the Pit-Out worker. His hand is held, palm facing me. That must mean go. "STOP," Dave says with authority. "Wait until he tells you to go. "GO! GO! GO!" With a wild over-rev I lurch my way onto the track and at Dave's instruction stay right of the Blend Line, but don't look left and get told that in the future it is my responsibility to look left and see if anyone is coming Dave is saying turn in TURN IN NOW and try not to hit so much of the curbing next time okay track out look ahead don't look at the car in front of you aim for the two tall trees turn in turn in turn in NOW track out get over further not that far let the car swing back naturally look ahead aim for the ladies room no the building on the right brake turn in look ahead get your left front tire on the concrete patch no the concrete patch clip the apex gas get lined up for the right hand turn look ahead breath the throttle get your left front tire on the concrete patch okay you'll get it next time gas gas not so much... brakebrake...BRAKE! the braking point is the big tree turn in clip the apex next time turn in later and clip the apex you were early that could be dangerous some gas gas up over the hill a little further in to the right next time leave a margin of safety aim for the cone brakebrake turn in track out look ahead stay left brake brake a little more off the brake head down the hill off the brake stay left turn in when you see the change in the pavement what you

don't see the change in the pavement? okay we'll get it next time track out no stay off the dirt that could lead to trouble look ahead check your gauges accelerate gas gas gas brake brake BRAKE HARDER turn in we made it thought we were going around that time if you can't handle speed don't go so fast okay **DON'T TURN OFF PSM** look for the two trees brake turn in.....Any questions?

Back in the Paddock Dave was being positive, telling me that for a first time it wasn't that bad. But as he walked away I was sure he faked dropping a quarter and when he bent down as if to retrieve it, kissed the ground.

After a filling lunch from the snack bar, topped off by a Pepcid, the rest of the day's runs were variations on the same themes. I kept missing apexes, applied my right foot more heavily than I should have, and magically was all over the place, stomping the gas pedal and either tickling or mangling the brakes. Consistently, I kept my eyes planted firmly on the front of my car or on the back of the car we were following. To be honest, I was not getting the hang of this very guickly. Well, so much for being a natural. Later in the season the Skip Barber instructor, Bob Green, during a classroom session sponsored by the *Metro NY* region, asked whether any of us played the violin. Nobody did. He then suggested that if we were to start learning the instrument right at that moment, it would be like learning for the first time how to drive on a track at speed. Now I understand what he meant. Learning to drive well was going to take work. RIGHT! I LIKE WORK! WORK IS GOOD!

Before the third run I asked Dave to drive the car for a few more laps and to go a little faster. I wanted to see how it should and could be done. That was a nice experience; smooth, consistent laps that seemed like he could repeat them endlessly. Somehow, time flew by and we spent the entire run with him at the

wheel. In his defense however, he did ask twice -at lowered communicator volume and in my bad ear- whether he should return to the pits so we could switch. No, it was okay, I was having a very good time with him driving, which allowed me to get a feel for the car's capabilities and see the line. MY driving was only creating numerous opportunities to test the car's software. Then, on the fourth and final run of the day, back at the wheel, as I was trying like mad to catch the car in front of me in West Bend, Dave calmly told me to back off, that it seemed like I was racing. Forgetting my manners, I said, #@&* Dave, you caught me! He laughed. I thought I'd put one over on him. Based on what was going to happen over the course of the season, I'm not sure, but I'll bet the silver 911 I was trying to catch in West Bend was driven by Reinhard von Hollander.

After all the cars were off the track and the runs for the day had ended, I had one of the tastiest beers ever, at the *CVR* sponsored *Happy Hour*. Mmmmmm. Yeah! Thank You!

3/31/07 Second Day

4:45 a.m. The alarm buzzes. Susan convinced me that it was not necessary to wake up as early as the previous day so I set the clock for fifteen minutes later. I catapult out of bed and start dressing as if the hotel is on fire and I'm a Little League coach. This time we drive to the track at a more sedate pace – less than 85 mph – wondering whether it might snow. Amazingly, Dave Bassett has returned to the track. At least I think that's him, but if it is, why is he wearing that crazy long beard, sunglasses and a ski cap? And why is he peeking out from behind Driving Impressions? It's a good thing his knees are shot. I catch him next to the skid pad. He instructs me for the second day and I'm very consistent. I consistently repeat most of the mistakes of the first. At one point, the searing pain in both

LET OUR EXPERIENCE HELP YOU

EXCTECH

MAINTENANCE - REPAIR

biceps helps me realize that my grip on the steering wheel could turn coal into diamond. When I tell him this, Dave says the Main Straight is a good time to relax a little...so when we get there I grip the wheel like I'm trying to strangle a crazed bobcat. During lunchtime there is a Track Tour, which allowed Susan to drive with me on some calm laps. At 40 mph I successfully conjure the first white hair to ever appear on her head. This is terrific. Now she and Dave will have something in common to discuss. They can become friends while discussing their shared near-death experiences with me at the wheel. Interestingly though, as I was describing the line to her and placing the car accordingly, Dave's instruction and his points-of-reference started to make sense. Could it be that going more slowly would allow more control and therefore

yield smoothness and consistency? No way! Well...maybe.

During the day we all have work assignments; mine was benign. I just had to have people sign the CVR waiver as they drove through the gate. Risk Management? Gladly, I was not assigned a task near a Hot Track. Visions of mayhem entered my mind when I considered working those jobs. Smart people, these CVR folks; they placed me as far away from the action as possible.

All things considered, my first two-day *DE* event went surprisingly smoothly. I was able to park, register, get through tech, drive my car ON the track, and survive lunch. **But, oh baby! Did I have a lot to learn about driving**. Still, the biggest surprise of all was how many really friendly people I met. When I first

read the CVR web site, the phrase, It's Not Just the Cars...It's the People, struck me as kind of corny. The reality however, was just the opposite; people were kind and helpful, with very little Attitude. These were enthusiasts, not snobs. Excellent!

4/1/07

Home and on my computer I have discovered The Track Schedule website: "Oh Susanbabyhoneysugardollloveofmylife, do we have anything planned for April 13th and 14th?"





Coming soon ... Drivers' Ed 2008

Photo by David Churcher

February 2008 19 Northlander

UpFixin the 550 and the 547

David Churcher _

... once upon a time in a land far away...

The ignition timing of the original engine came from twin distributors initially driven off the cam shafts, and later with flywheels to help smooth them ...

What is equal to a good book, a fine wine, a good meal, a snooze in the sun? I think the equal is an afternoon with a fellow middle aged colleague playing with "toys", discovering shared experiences, and learning something new. Stories unfold and digress in to other stories. Time flies.

The above paragraph alludes to a cold (!) Saturday in January and my visit with Rainer Cooney and Jerry Dascoli of Meister Restoration. But the story really begins as "once upon a time in a land far away". You will know I refer to about 1960 and Australia.

Once upon a time I was learning to machine parts on a Deckel milling machine and my tutor was a German Porsche fanatic. Manfred did me the favour of making me almost as much a fanatic. Way back then he told me about the history of Porsche, Auto Union, and Mercedes. He described various manufacturers of components for racing cars. I recall in particular his long (diatribe?) on companies such as Hirth and Mahle. About this time I was fortunate enough to work on some parts from Mahle, Coventry Climax, etc. But I never set eyes on the wonderful Hirth crankshaft. This crankshaft is a bolt together assembly and uses roller bearings.

Fast forward to Rennsport Reunion III in Daytona. I am at dinner with at the Chart House with colleagues and some people I have heard of and only just met. Rainer Cooney was across the table and talking about a 550 he has begun to restore. He has the engines too ... and they have the Hirth crankshaft. I quickly asked if he had those engines intact, or apart, and learned he had both. And, was he rebuilding a Hirth? Yes. But what about the special tools etc.? He had made his own. Oh ... a story here ... a circle in my life about to be completed. Manfred would be impressed.

After a couple of snow storms ruined plans to meet Rainer and Jerry, a cold but clear day arrived. My Porsche was off the road thanks to a snow plow hitting it. A Rent-a-Susuki filled in. One hour drive to get within a mile of their place and another hour to find them. How do these guys stay in business if no one can find the shop?

Rainer had given me a preview over the phone so I was ready to see all the toys and hear the stories. My goodness, how name dropping and connections and a tangled web unfolds in this industry. As I set up the back drop, the Nikon, and the flash, we chatted about the parts in front of us, who else in the country worked on these engines, who else had body parts, who was honest in the business and who had "lost" customer's four cam engines, etc. We looked over the parts to be photographed. My main interest was the engine ... the 550 frame was nearby ... later I asked where the body work was and learned the "fire" (mentioned later) had consumed it and some of the parts in house were really melted down aluminum bits. This restoration was a big project. And Rainer is up to it. Oh, my goodness, what a story unfolded in the next hour or two.

Back to the Fuhrman engine. This is the four cam engine from the '50s designed by Dr. Ernst Fuhrman who was later to be CEO of Porsche. For years I had thoughts of Dr. Fuhrman leaning over his drawing board (no CAD in those days) designing this complex engine. But I learned from Rainer the engine was a by-product of a Auto Union design which, of course, traces back to Dr. Porsche as the original designer. The engine is a legend of performance and also a legend of complex construction and maintenance. I had heard about the many shims and the timing of the ignition and cams through a complex gear train. Rainer amplified this story and proceeded to lay out the parts on the back drop explaining along the way how timing was to be set up.

The ignition timing of the original engine came from twin distributors initially driven off the cam shafts, and later with flywheels to help smooth them, and later still driven by gears from the crank/ secondary shaft. Neither plot worked well and caused the engine to be "off" timed. To fix this on the engines he has Rainer adopted modern technology and added two magnets to the crank, and a pick up, so the ignition can be timed in a "modern" way. These changes are unobtrusive and if a purist wishes to "undo" these mods ... he can.



The top photograph is a complete HIRTH crank assembly. It is made up of pieces joined by special screws and matched serrations.

The close up photograph shows more detail of the serrations and also shows the wear path where those tiny 6mm rollers have been going around.



Two crank webs are joined by a hollow screw with a thread at each end with different pitches. The screw is turned a fraction of a turn with each grab by the special splined driver shown at the right. This special tool was made by Rainer.



Photographs this page by David Churcher

February 2008 21 Northlander

What about con rods, pistons, valves, and bearings? You can see the factory rods in the photographs with this article. Rainer will use USA made rods ... forged, stronger, modern. A purist might be offended but a person wanting a Fuhrman engine today will appreciate the new rods. Pistons are also USA made and machined from billets, coated, and will use a modern slim ring pack. I was pressed by sentiment to find the MAHLE mark cast in to the original pistons. It was there, just as it was in 1958. But the new pistons are a piece of art. The valves from the 1950's are heavy and do not transfer heat as well as a modern design. Hence, new valves made in USA by DELL WEST in Titanium. No Sodium cooling. Lighter. Smaller stem diameters. All to allow long life and higher revs. New valve seats to match in Beryllium bronze ... two grades, one for intake seats and one for exhaust seats. Modern technology to help out the original design.

Bearings. They deserve a book. The Hirth shaft uses roller bearings. In the days when this engine was designed a roller had less friction than a sleeve bearing. This is no longer true. But a Fuhrman/ Hirth is a sacred thing. One must have rollers. Where do you get them today? Harley roller cranks supply parts which can be adapted. Rainer has found parts, had them checked for dimensions and hardness at MIT. And, because they are .250 inch as opposed to 6 mm ... there is a slight problem. He has to machine and broach his own roller cage and then custom grind the ID of the big end of the cranks. If you understand all this you will know what I mean. If you don't ... please accept this is a whopper task.

So, once again, delving in to my past and conversations about this engine I am aware it is a beast to set up for timing and assembly tolerances. How does one get valves in place and valve seats machined and cam to valve clearances? Rainer made his own valve seat insertion tool (see photographs), he calculated the needed dimension from the top of the cylinder head to the valve stem top. With careful machining this can be obtained and thereby remove the need for custom ground valve stem caps. How does one set up the gear train and remove backlash? Very carefully ... one does this with the springs out and gears set to the right position and then, working from the lay shaft outwards, sets the shims and the timing. Oh, dear.

So ... what about the chassis and body and transmission? I asked where the body panels were. The reply was: melted. Along with many other parts. In a garage fire. Back in 1986 a mechanic was welding an exhaust for a 928 and knocked over the gas tanks, and that knocked off the guages, and that started a fire. Several cars were lost including this 550. The owner collected the insurance, the 550 ended up in a dumpster. Later an enterprising enthusiast saw the frame leaning over the edge of the dumpster. He rescued it. He took it home. All of it. And began to talk about how he "rescued" a 550. A more enterprising enthusiast in Switzerland heard this story and contacted the original owner, got the title, and then raided the house of the first enterprising enthusiast. As a result he then became "legal" owner of the car. The car went through a couple more owners which included one Otto Winzen ... who was a pioneer in high altitude balloons and a part of the early US space program. There is no space here for a digression on this person but, please, do a Google and read a fantastic story. Eventually the car landed with an owner and a restoration attempt which fell in a heap. We can not mention names here ... of course. But as things unfolded Rainer got the car and a couple of "mystery boxes" for a reasonable sum which he secured by a loan against his house. The mystery boxes were part of the deal which was secured by a bunch of bank notes in a duffle bag. Sounds like a Mafia deal. But the deal was made and the boxes opened only to reveal Fuhrman engine parts ... enough to cover the loan.

The engine in original form produced about 110 HP and later 130 HP. With the above improvements in materials and components Rainer expects about the same HP but a lot longer life and reliability. The look and feel, and the sound, of the original will be preserved.

What about the body panels? This car is 550 number 86 and each of these cars was a bit "custom" ... so how to dupicate the melted panels? A similar car is in California and owned by Vijay Mallaya ... who is a business man from India who owns just a few companies and a Formula One team (please, do a Google). He has offered to help out in the reconstruction of #86. Rainer found a company ... www.handyscan3d.com ... with a product which will scan a 3D form and reverse engineer it in to a CAD file. With the Handy Scan from Quebec they will digitize the body shape of the California car. Rainer can then make an exact buck for forming new panels.









The top photographs have two orignal valves at the left and two modern Titanium valves at the right.

Pistons for the rebuilt engine will be USA made, machined from solid, and coated. The piston on the left is an original cast MAHLE piston.

Con rods from Porsche come in different styles. The big end is not split as in a conventional motor. The big end bore here is the outer race for the roller bearings.

Photographs by David Churcher





The top photograph is cylinder head with new valve seats just installed. The tools on the right grip a new seat, center on the valve guide, and drive the seat in to its bore. The special tool was made by Rainer.

The photograph below is half a cylinder block / crank case with the secondary (half speed) shaft in place. The gears at the center drive the shafts which reach out to the cylinder heads and drive the cam shafts.

Prior to the details of the above paragraph Rainer was able to borrow (!) 550 #60, which is now owned by a famous TV personalty, for a few weeks and make his own sketches. The 550 is at first glance a "simple" car but on closer examination it becomes clear the design was evolving and changing and it was made by craftsmen. Not an easy thing to duplicate. It was necessary to take advantage of this loaner and sketch everything. I do mean "everything". A book of sketches and templates of louvres, hatches, fillers, caps, bumper pads, door latches. Omigod. What a task. What a labor of devotion. Incredible. Molds made and rubber poured, itsy bitsy pieces Porsche charges \$18 for each and there is a need for \$228 of them just to plug up the air cooling of the motor. Rainer made his own.

The piece which really got my attention, and I forgot to photograph, is the restraint for the lift up rear deck. This piece is similar to the hood latch of a production Porsche but for the 550 it was made in Aluminum. An elegant piece with a star wheel and levers which allows it to detent on opening and to release the detent for closing. Beautiful. But lost in the fire. Rainer made his own on his Bridgeport ... it is polished Aluminum and every bit as beautiful as the original.

How does one find all the needed information on these old cars? In recent years Porsche has declined to share information because of a German law. It seems there is an industry of counterfeit cars and indeed there is more 904 cars around than ever built. Porsche will "confirm" information but not divulge any information. Most of the available information has long ago found its way into private data bases so it is "available" and one can verify a cars's components and history. Rainer knows he has the original engine, transmission, "high rail" frame for #86 and is aware there was a duplicate #86 frame made for a Le Mans factory car ... but surely with the welded on frame number tag changed to reflect it was another car.

So I had a great day. A day of reflection on my own life back to the 1950's and a day of learning many points about Porsche history and design details. I also learned about enthusiasm, dedication, and facing a task as big as Everest. Porsches are amazing cars and they attract the most amazing people.

Photographs by David Churcher

February 2008 23 Northlander

So I have raved here about Rainer and his 550 and neglected Jerry and his restoration projects. Stories for another day. Believe me, stories abound about Porsches pulled from barns complete with chicken eggs on the front seat and then carefully restored to showroom condition.

I had to ask what the next generation of enthusiasts can expect from restorations. ie: will we see 993 997 restorations in 50 years? The answer was: probably not. The newer cars are complex and not worth the time and effort. So ... enjoy these older cars. We are living, now, in a golden age which will not be repeated.

As I made my way carefully across the ice to my Rent-a-Susuki I commented to Jerry about my careful steps and the gimpy left leg. He replied he also had a gimpy leg with a piece of steel inside. He had gone base over apex right where we stood and had broken his leg. On that note I departed with still greater care and many memories floating around my head. Freezing cold, I headed home for my fish stew and with thoughts about the preceding 50 years. Time flies.

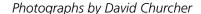
You might ask: How do these guys stay in business if no one can find the shop? The people who need to know do know and the guys have a six year back log of work. Amazing. What a day.

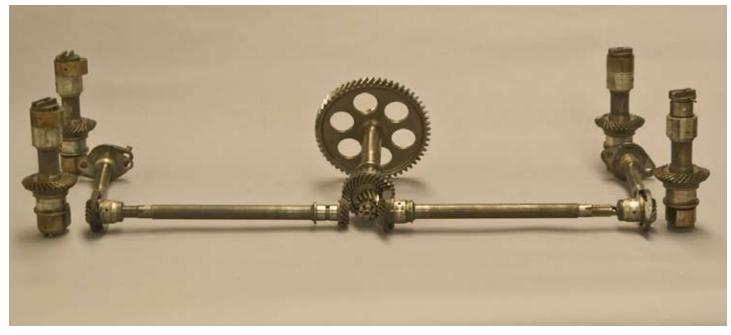


The photograph above is a complete cam shaft. Just two lobes, two bearings, a bevel gear ... and the shims.

Below is the completed gear train from the half speed shaft to the heads on either side of the engine and a cross shaft at each head. Can you imagine the stack up of tolerances and clearances which have to be accounted for? Not a job for any person in a hurry.

Photographs on right hand page are the frame for the 550 sitting on horses. The frame is upside down and the front is towards the camera. The book is Rainer's collection of notes, sketches, templates and instructions for the restoration. In addition to the book there is a collection of full size templates for sheet metal.









February 2008 25 Northlander



Maine's Premier European Auto Service Shop Located in Freeport at 353 U.S. Route One

The alternative to dealership service.

Capable of repairing the absolute <u>newest</u> European cars.

Our reputation for expert service with personal regard has meant long term customer satisfaction

Utilizing Factory Diagnostic Equipment & Technical Information Plus

Our involvement in industry organizations for the advantage of networking and access to current technological service information. Gives us an edge above to get your car diagnosed & repaired properly.

865-6600

BMW * MERCEDES * PORSCHE * AUDI * MINI





Old Porsches do not fade away. They retire to California

David Churcher



Further to the theme of old Porsches in this issue I will share a few photographs from my trip to LA. My friend Ray took me off to see a restoration shop and show room in Costa Mesa. We rolled up about mid-day in Ray's bright orange '48 Chevy truck to find the shop and show room very quiet. They take their lunch hour seriously and this was to my advantage ... I was able to shoot and browse without distractions.

What a gold mine this shop is. A collection of Porsches in various stages or restoration, some waiting their turn, and a show room to make a Porschephile drool. Add to this two (!) complete Fuhrman engines in the office.

Once I returned to NH I wrote to Chris Casler, Sales Manager at European Collectibles, to ask if he would mind me publishing the shots. He replied this would be fine. I related this story to Rainer while we were shooting for the 550 article and, of course, Rainer and Chris know each other. It's a small world ... or perhaps there really is a close linked Porsche community.

I proposed my title for this article to Chris. His reply was:

"old Porsches do not die ... but the majority came to California and are still here"

European Collectibles is a licensed bonded California dealer that has been doing business for the last eleven years. They specialize in the sales, service, and complete restoration of classic European and British sports cars.

European Collectibles

1665 Babcock Street Costa Mesa, Ca. 92627

E-mail:

<u>europeancollectibles@pacbell.net</u> Web page:

www.europeancollectibles.com

February 2008 27 Northlander





A quiet lunch hour gave the photographer a chance to cruise around European Collectibles' shop and take pictures at liesure. There is such a collection of cars and parts one can only describe it as being a gold mine.

Photographs by David Churcher

Hybrid Drive on the Porsche Panamera

Dr. Ing. h. c. F. Porsche AG, Stuttgart, will also be building a hybrid drive version of the new Panamera. This four-door Gran Turismo with sporting driving dynamics so typical of Porsche will boast the proven components featured in the Cayenne Hybrid entering the market at the end of the decade. And thanks to its newly developed full parallel hybrid, Porsche's Sports Utility will offer average fuel consumption of less than 9 litres/100 kilometres.

The new Porsche Panamera will be the first four-door sports model to feature particularly fuel-efficient full parallel hybrid technology. At the same time the Panamera will also benefit from the experience then gained by the Porsche Cayenne as a pioneer in hybrid drive.

The newly developed full parallel hybrid system will consist primarily of the battery unit positioned in the luggage compartment, the power electronics, and the hybrid module between the engine and transmission comprising an additional clutch and the electric motor. Depending on driving conditions, the hybrid module is able to disengage either the combustion engine or the electric motor, or to combine both drive systems as one joint power unit. Hence, the Panamera may be driven in a number of different modes ranging from all-electric drive absolutely free of emissions all the way to the sporting style of motoring so typical of a Porsche.

The fourth model series coming from the sports car manufacturer in Stuttgart also boasts other striking features, the wide and low body offering dynamic proportions and muscular design for an outstandingly sporting and at the same time compact overall look. The space available inside the car offers a brand-new experience of roominess. The two sporting and comfortable single seats at the rear will allow adults to relax with surprisingly generous headroom, in full comfort and, if they wish, with all the performance and speed of a genuine Gran Turismo.

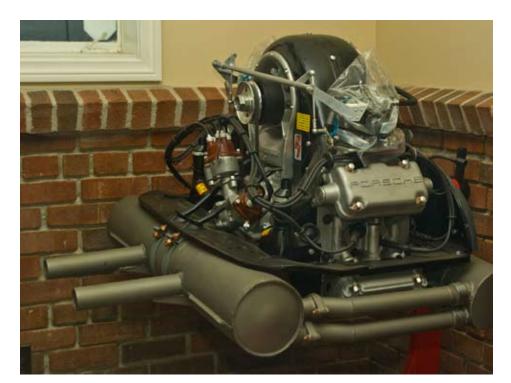
Sitting in the elegant and modern cockpit with its high-quality materials, the driver will enjoy all the sporting and unmistakable driving dynamics so typical of every Porsche. The new Panamera Gran Turismo will be making its world debut in 2009 and will be introduced initially with proven drive concepts. The hybrid version will follow later, depending on market requirements.





February 2008 29 Northlander





A nice little piece of decor in the show room. One of the wo complete Fuhrman engines.

For a peak at the inside of this engine see the preceding article.

The photograph below is just a portion of the show room. Beautiful cars all in a row. Ultimate eye candy. For a more complete tour and photographs log on to the web site.

Photographs by David Churcher



February 2008 31 Northlander



Edgar Broadhead

The Safety group will be looking at every tech form submitted ...

As I sit watching it snow and waiting for the New London Fire Department to call me for yet another upside down SUV, I'll write one of the occasional safety columns. (Note: you thought those rails were for a luggage rack? No, they are to keep it sliding straight while on its roof)

The DE season will soon be here, so now is the time to read the NCR 2008 DE Regulations and 2008 Tech form on the NCR website. Some of this year's changes were decreed by National, so be sure also to read the PCA DE Regulations under "Club Racing" on the PCA website.

Five- and six-point harnesses may be used only with a race seat and should only be used with a roll bar. Five- and six-point harnesses may not be used with a factory three-point belt. Aftermarket harnesses must be replaced after five years. Factory DOT three-point belts have no expiration date! ??????? Schroth makes a DOT-approved four-point system for a few makes, Porsche is not one of them. Some interesting, if confusing, reading on seat belts can be found in the FIA, SFI, and DOT regulations.

Those of you who track Boxsters may want to consider a "TechnoBrace" to improve handling.

The NCR Safety Committee and the Chief Instructor have decided to disallow "R" compound tires in the green and yellow groups unless they were OEM fitted.

The Safety group will be looking at every tech form submitted. Last season several tech forms were submitted that had illegible signatures and/or were signed by unauthorized persons. Be sure the 2008 form is used and that the inspector's name and stamp are legible. We are not planning to do last minute tech inspections at the track. You will not drive without a valid tech form.

...continued from page 4

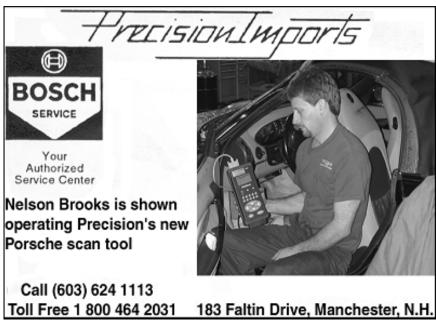
contributions came in, Tracey made it to her plane, and I began the February issue's process we call "plunking". Plunking is a high tech word for making it all fit and controlling the white space.

I mentioned in the above paragraph the pressure and the panic. And there is pressure and occassional panic. There is pleasure too. It is a delight to open our email when the pressure and panic are present and find a contributor has sent us a surprise. See this issue's Diary of a DE Addict. Good stuff. A real giggle.

If you are a regular contributor to *Northlander* please keep up the steady flow. If you are one of those surprise contributors ... bless you. And if you are not a surprise contributor ... please have a go at surprising us. The editors and the readers will love it.

David





February 2008 33 Northlander



Tool and Equipment Connection, Inc

63 George Leven Drive North Attleboro, MA 02760 888-594-7800 info@teclifts.com

Offering equipment solutions to improve your garage environment

- Service lifts
- Storage lifts
- Motorcycle lifts
- Jacks and stands
- Cabinetry
- Workbenches
- Lubrication equipment
- Waste oil management
- Compressed air systems
- Exhaust extraction







Lifting Your Expectations Since 1984

www.teclifts.com

Date: October 2006

Event: The inaugural PCA Club Race at DAYTONA INTERNATIONAL SPEEDWAY, Daytona, FL.

Assignment: Support our clients as well as prepare, transport and care for their race cars.

Results: All Great... some Extaordinary!



Greg Brown: Winner of the very competitive GTC3 class enduro in his GT3 Supercup Car.

Dana Martin: 1st in class and 4th overall in the GTC2 class enduro.

Bob Cohen: 3rd in GTC1... running the entire 90 minute enduro solo.

Barry Brensinger: 2nd in class in sprint after starting last overall... setting another B class track record.

Andy Jenks: 3rd in class of 26 F cars and 4th overall in enduro after a dramatic spin dropped him to 30th early.

Caryl Brensinger, Bruce Hauben, Wayne Mackie and Steve Boris: Finished off the podium but ran safely without problems or issues.

CONGRATULATIONS!! to our customers and friends on their outstanding performance at Daytona

While not all our customers race their cars or even participate in the PCA drivers education program, we believe all our clients deserve the same level of personalized, professional care we have become known for in race paddocks all across the country.

Our commitment to excellence shows in many ways, through our flexible scheduling, our cost effective approach to proper repair and maintenance and our unique ability to help make your Porsche ownership pleasurable and rewarding.

So, the next time your Porsche needs a little TLC... even if your not planning on driving the banking at Daytona... call or drop us a note. It's often said "Racing Improves the Breed" and we at EPE believe that it's true, not only for the car, but the technician that works on it.

EUROPEAN PERFORMANCE ENGINEERING

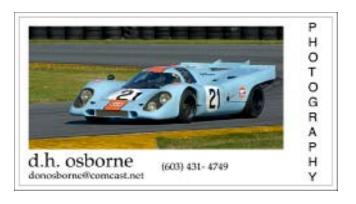
10 COCHITUATE STREET · NATICK, MA 01760 · PHONE 508-651-1316 · FAX 508-651-3448 · EMAIL EPE@EPE.com

February 2008 35 Northlander

YOUR CARD CAN BE HERE FOR ONLY \$96/YEAR! CONTACT THE EDITORS!







Jay Gratton, Director of Community Outreach jay@skidschool.us 603-498-8576 (cell)



57 South River Road, Bedford, NH 03110 www.skidschool.us info@skidschool.us 603.296.4094 • fax 603.296.4098







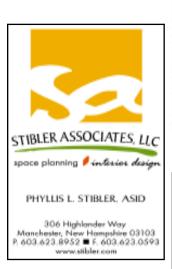


Sale* 2000 Porsche Boxster**, Arctic Silver with Metropol blue interior and top; 5 speed, 17" wheels; AM/FM/CD with hifi option & Sirius Satellite radio. Lojack recovery system. Full maintenance history has had major service in last year, synthetic oil changes only and brake fluid changes every year along with necessary filters. This Porsche is in excellent condition, (detailed every spring by Kleen by Cindy) body near perfect interior has no serious faults, back window in decent shape. Second owner have owned for 4 ½ years. Offered at \$20,995. Please call Steve at 508-653-1695 evenings or weekends or email at SLR944@ AOL.COM

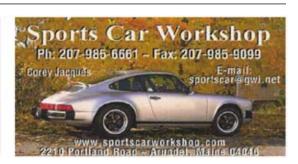
Sale *1983 911 SC** Coupe Red/Black VIN:WP0AA0918DS121978. 110,000 miles. Runs great. All the good upgrades and retro-fits. I've owned for 10+ years. Lots of service records. \$16,000. Keith Quinton 603-643-4508 or keith.quinton@valley. **Sale **** Dansk Freeflow Conversion Kit (SSI heat exchanger and dual inlet/ dual outlet SS muffler)as shown in Performance Products on p. 78 for 2;285.95 Recommended by Bruce Anderson Porsche Performance Handbook p.143, Sell for 1,150.00 Allan MacGillivary-603-673-2030 almac 24@comcast.net.

Sale:* '00 Boxster parts** & misc. parts: Graphite grey leather seats (driver & pass.), heated, power backs w/ manual fore & aft movement, factory rails, very good condition (no tears, rips, or stains), \$1200. L & R standard headlamp units (non-litronic) w/ amber turn indicators, \$500. L & R taillamp housings (no lamps) w/ amber turn indicators, \$150. B-K fire extinguisher mount, R-2020, for 986 & 996 factory seats, \$75. Simpson cam-lock 5-point harnesses, black, driver & pass., w/ pads, \$150. John Leach, (603) 433-4450, or JSL986s@comcast.net.

Sale: * 2001 Volvo V40 --- 78K; \$7890 or BO. Snow Tires- Cooper Weather Masters- P205/60R15 M&S-good tread & condition, Asking \$80 for 4 tires. Jack Saunders 603-536-4275 or saunders-p205/60R15 M&S-good tread & condition, Asking \$80 for 4 tires. Jack Saunders 603-536-4275 or saunders-p205/60R15 M&S-good tread & condition, Asking \$80 for 4 tires. Jack Saunders 603-536-4275 or saunders-p205/60R15 M&S-good tread & condition, Asking \$80 for 4 tires. Jack Saunders 603-536-4275 or saunders-p205/60R15 M&S-good tread & condition, Asking \$80 for 4 tires. Jack Saunders 603-536-4275 or saunders-p205/60R15 M&S-good tread & condition, Asking \$80 for 4 tires. Jack Saunders 603-536-4275 or saunders-p205/60R15 M&S-good tread & condition of saunders 603-536-4275 or saunders-p205/60R15 M&S-good tread & condition of saunders 603-536-4275 or saunders-p205/60R15 M&S-good tread & condition of saunders 603-536-4275 or saunders-p205/60R15 M&S-good tread & condition of saunders 603-536-4275 or saunders-p205/60R15 M&S-good tread & condition of saunders 603-536-4275 or saunders-p205/60R15 M&S-good tread & condition of saunders 603-536-4275 or saunders-p205/60R15 M&S-good tread & condition of saunders 603-536-4275 or saunders-p205/60R15 M&S-good tread & condition of saunders 603-536-4275 or saunders-p205/60R15 M&S-good tread & condition of saunders 603-536-4275 or saunders-p205/60R15 M&S-good tread & condition of saunders 603-536-427









DAVID CHURCHER PHOTOGRAPHY

603.799.4688 DavidChurcher@comcast.net





February 2008 37 Northlander

HO THOSK

Autowerkes

24

31 Ayer European Auto Restoration 34 Black River Design 13 Blair Talbot Motors 28 Car Part Connection 35 Dan Witmer (Porsche of Nashua) 35 David Churcher Photography 34 Don Osborne Photography Inside front cover Dover Auto World 33 **EPE EXOTECH** 16 35 Foreign Intrigue 35 Harry Robinson (Porsche of Nashua) 27 **HMS** Inside back cover **IRA** 34 Iron Horse Kathy's Kitchen 34 35 Lavallee/Brensinger Loader Imports 34 Back cover Michael Bernier Agency/ Hagerty/Allstate 27 Meister Restorations 6 Porsche of Nashua 24 Parts Heaven 11 Porsche of Stratham 31 Precision Imports Sports Car Workshop 35 34 Scott Murray (Wells Fargo) 35 Stibler Associates 34 Stevens Advanced DriverTraining

NORTHLANDER MONTHLY ADVERTISING RATES

Tool and Equipment Connections

Stuttgart Northeast

Tires to You

24

34

32

Inside cover \$87

Back cover \$96

Full page \$79

Half page \$56

Quarter page \$40

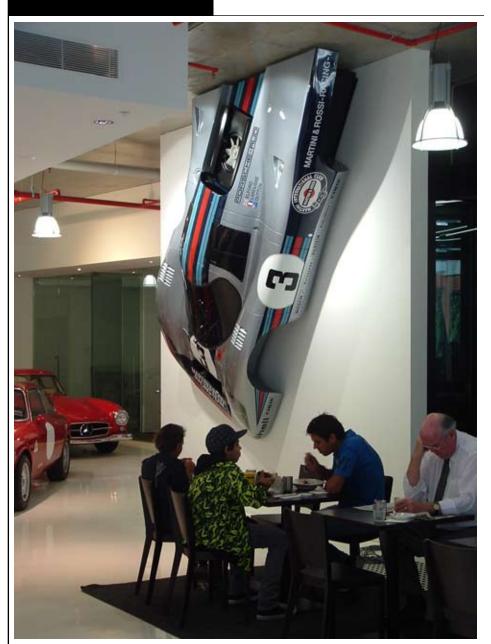
Eighth page \$25

Business card \$8

Advertising contracts are for one (1) year (12 issues) unless otherwise noted. Billing is done twice per year, November and May. Business card ads are billed once per year in November.

We are happy to accept new advertisers part way through the year.

\blacksquare T \blacksquare

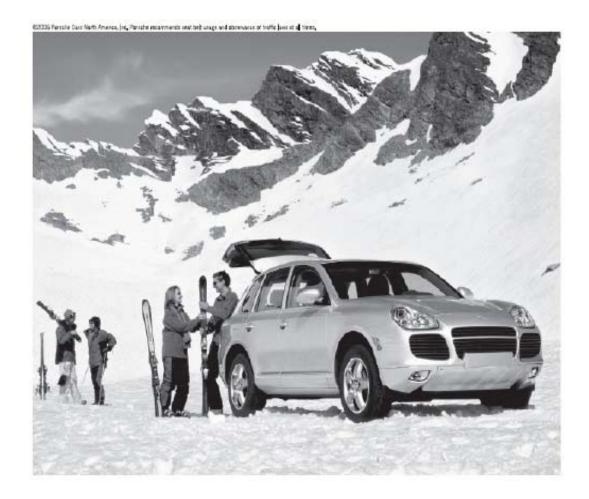


Things you can do with a spare 917. This replica body shell made by Kraftwerkz in Australia hangs on the wall of a Melbourne dealership. Note those nice machines in the background too.

\square

Is it time to think about next month? Will the snow be gone? Will we have articles?

We will be giving a full and detailed, blow by blow, account of the NCR annual Yankee Swap.



Plenty of cargo space. No room for compromise.

Right now at Ira Porsche, experience the 2006 all-wheel drive Cayenne. Precise traction and stability management. Ventilated disc breaks with monobloc calipers. Just a few of the reasons nothing else moves you like the Cayenne.





\$495 (MONTH 48 Mos.)
Cayenne \$4,995 cap reduction

Cayence stocks X6022, 54,995 town plus first payment, security deposit, doc tee and applicable toxes, 48 month lesse, 10K miles per year with approved areds.

February 2008 39 Northlander

BLOW YOUR MONEY ON CARS NOT INSURANCE

Let's face it, the less you spend on insurance, the more you'll have to spend on the car of your dreams. So call Hagerty. Because all we cover are collector car owners – the safest drivers on earth – our rates are ridiculously low. So blow your dough on something fun for a change.





Michael A. Bernier, Agent

The Michael A. Bernier Agency, Inc.
400 Amherst Street | Nashua, NH 03063-1241
603-889-5800 | Fax: 603-886-5184 | mbernier@allstate.com

TORTHLANDER
volume XXXI number 2 February 2008

volume XXXI number 2 Lisa Roche 35 Chapman Place Leominster MA 01453

Change Service Requested

FILE OF SECTION

PRSRT STD U.S. Postage PAID

Manchester NH Permit #417