

BOOKEND ANDIALS
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02



64



115



108



118

contents

NO. 225 FEBRUARY 2015

- 58 **Bookend Andials**
The first and last creations from Andial
SEAN CRIDLAND
- 64 **Tin-Top Respect 356**
This 1951 356 restoration was a labor of love
PETER LINSKY
- 73 **Jägermeister 962**
This 962's days on the track are far from over
JOHN NADERI
- 79 **5 Best Porsche Buys**
Used Porsches at reasonable prices
GREG HUDOCK
- 92 **Fifteen Lollipops**
An owner bids farewell to his IROC RSR
TED WEST
- 98 **The Kiwi 912**
A DIY 912 by a New Zealand enthusiast
RANDY WELLS
- 105 **Celebrating the Rennmezger**
Hans Mezger: Porsche engineer extraordinaire
KARL LUDVIGSEN
- 108 **Restore the Shore 944**
You can't keep a good 944 racer down
DOM MILIANO
- 115 **2015 Cayenne**
Porsche adds more sizzle to its best seller
IAN KUAH
- 118 **Rally-Inspired T**
Neither tribute car nor replica
KRIS CLEWELL
- 124 **Mechanical Limited-Slip Diffs**
We explain how Limited-Slip Diffs work
CHRIS ANDROPOULOS
- 84 **READER SALES REPORTS**
- 6 **EDITOR'S DESK** GREG HUDOCK
- 10 **LETTERS TO THE EDITOR**
- 21 **THE RIGHT LINE** JOHANNES VAN OVERBEEK
- 26 **TECH NOTES** MARK ROBLES
- 144 **BACK PAGE**
- 114 **BACK ISSUES**
- 127 **EXCELLENCE MARKETPLACE**
- 143 **ADVERTISER INDEX**

COVER SHOT
THE FIRST AND LAST ANDIALS. CREDIT: SEAN CRIDLAND

BOOKEND

The first and last creations from the legendary Porsche racing and service shop

STORY AND PHOTOS BY SEAN CRIDLAND

ANDIALS



IF YOU WERE a Porsche racing enthusiast in the United States in the 1970s, '80s and '90s, there was one name you knew to be ubiquitous and synonymous with winning: Andial. The partnership was made up of Arnold Wagner (AN), Dieter Inzenhofer (DI) and Alwin Springer (AL). Their engines powered race cars to wins in the IMSA Camel GT Championship, IMSA Supercar, the SCCA World Challenge and the Pikes Peak Hill Climb.

Drivers who sat in front of their powerplants include almost every major name in competition from the period, including Unsers, Andrettis, Foyt, Holbert, Ongais, Haywood, Wollek, Bell, Stommelen, Rutherford, Stuck, Busby, Halsmer and many more.

How dominant was Andial? Porsche issued a poster in the late '80s that said "Porsche 962: Zero to 50 in 4.6 Years," which illustrated that model's 50 wins in IMSA. Andial engines powered all those victories. That's not even men-

tioning the wins they powered in the RSR, 934, 934.5 and 935 evolutions of the 911.

It all started very modestly, though. Wagner and Inzenhofer worked for Vasek Polak in the late 1960s and early 1970s. They earned reputations as excellent Porsche parts and engine specialists, having worked on various winning Spyders, 904s, 906s, 908s and 917s. They also ran Polak's service department.

Eventually, the pair had ambitions of their own and they approached Polak with an idea. Another Southern California dealership was up for sale and Inzenhofer and Wagner suggested that Polak buy it, but with them as minority partners in the operation.

"I've never had a partner in the past and I never will," Polak tersely replied. In that moment, Andial was born. Alwin Springer came in to handle business and sales and the three combined their initials to create one of the most influential engine shops in American sports car racing history.



THE FIRST ANDIAL

Shortly after Andial was formed, Jim Busby approached the company to prepare the engine for an RSR he was running in the 1975 IMSA championship. That's the car we see here, now known as "the first Andial." It's a car that came into existence by an odd set of circumstances.

Busby had been racing the Barclays Bank Lola in the World Sports Car Championship in Europe when the 1974 fuel crisis hit. Barclays, who didn't want to be perceived as an insensitive spend-thrift company that threw away money on racing, pulled its sponsorship, leaving Busby without a drive.

Not long after, his longtime friend and racing supporter Bill Karges, owner of Beverly Porsche/Audi, called to chat about an idea. He'd heard that Vasek Polak had several new 3.0-liter Porsche RSRs in his inventory and was having a hard time selling them for the same reason that Busby had been sent home from England. Karges suggested that they buy one, paint it in Beverly colors and race it in the popular IMSA GT series.

Since Busby had primarily raced prototype sports cars and open-wheelers, he was somewhat apprehensive about racing "sedans." With no other offers available, though, Busby and Karges went to Vasek Polak Porsche and picked out a Grand Prix Weiss RSR (# 9122) in race trim (code M 491).

After taking delivery, Busby installed body extensions, modified the roll cage and changed the gear ratios. Karges's team then painted it and applied the sponsor logos. Otherwise, the car was left completely stock, which made for a tough first outing.

The RSR was hopelessly uncompetitive in its first race at Laguna Seca because, as Busby recalls, "nobody was playing by the rules." Soon after, he called Brumos Porsche owner and racer Peter Gregg to



see if he could help get him up to speed.

According to Busby, though many people had troublesome relations with Gregg, he got along with him very well. During their conversation, Gregg gave him some gear ratio and chassis ideas. Busby, in return, shared some information that he had learned while racing in Europe. Then, Gregg suggested that Busby should talk to the guys at Andial.

"Jim Busby is a very competitive man," said Dieter Inzenhofer. "He came to us and said: 'Let's build something we can do well with. Maybe even win races.' In fact, they did win at the old Ontario Speedway. He was the first to approach us. That's how Andial started out. And from that it turned into the 934, the 934.5, the 935 and then the 962...but the RSR is what we started out with, what made our reputation and really gave us our career in racing."

Andial started out small. They didn't even have their own dynamometer at first, so they worked with Southern California drag racing shops near them that did. This worked to their advantage as, through these dyno sessions, they learned new power-making tricks and started coming up with ideas of their own.

Since the 3.0-liter RSR engine was originally designed for rallying and long-distance sports car racing, but most IMSA events followed a sprint format, Andial knew they didn't need to worry about long-event reliability as much. This allowed Andial to apply some drag racing power tricks.

They raised the RSR's compression ratio, added larger Schrick cams and installed flat port cylinder heads, which resulted in 50 more horsepower. Busby started winning races, Andial opened their own shop in Costa Mesa, California and both their reputations grew from there.

In all, Busby raced the Andial-tuned 911 to a top 10 finish in all 11 races he entered in 1975. As the Beverly RSR's performance improved, Gregg's respect for Busby grew. Gregg even picked Busby to take over the Brumos RSR when he moved over to the BMW factory effort for 1976.

At the end of the '75 season, the Beverly RSR was sold to Monte Shelton, who ran it for another season and half in IMSA and Trans-Am. Eventually, Shelton sold the car, but it continued to run in club races for much of the rest of its life. Later, the RSR was returned to its original



configuration and colors and run as a historical car. It now resides in a private collection in Colorado, but it's often seen in historic events around the country.

In the meantime, Busby had retained Andial to look after the Brumos engines and continued to move towards the front. As a result of Busby's good runs, Andial caught the attention of other teams and drivers who were looking to race near the front. From there, Andial's reputation for mechanical excellence grew and grew. By the 1987 Daytona 24 hour race, Andial engines powered all five top five finishers!

Around that same time, Andial began a relationship with Al Holbert. Holbert was the first head of Porsche Motorsport North America and Porsche's prototype performance part developer. Once racing parts were proven to be strong, powerful and reliable on Holbert's cars, they would be passed on to the other customers through PMNA. Later, after Holbert's tragic death in a light aircraft crash in September 1988, Andial became the official Porsche Motorsport agent in the U.S.

Andial consisted of two separate buildings across the street from one another in Santa Ana, California. In one was the rac-

ing department and the other was the Andial street service department. The two businesses ran parallel but separately, with Springer, Wagner and Inzenhofer going back and forth between the two buildings several times a day.

Eventually, that arrangement caused friction between Porsche and its customer race teams who found themselves both as customers of and competitors to the factory team of Andial/Porsche Motorsport.

In 1997, Porsche Motorsport made the split from the Andial street service department and took Springer with them, leaving Andial as an independent repair shop...albeit one with a very good reputation. For Inzenhofer and Wagner, that wasn't unexpected, nor was it tragic.

"From day one, we wanted to have an A-1 level service department for street cars," said Inzenhofer. "As business people, we knew that racing successes may come and go with the whims of sanctioning bodies, rules changes, factory participation and economy, but people *always* need their cars worked to keep them running properly."

So while many people have heard about the Andial race shop, the Andial street service shop was also running at full

capacity. "Racing is fun and the money can be good," said Inzenhofer, "but it can also be very short-lived."

THE LAST ANDIAL

That leads us to what became "the last Andial." During Andial's racing heyday in the mid 1980s, a 2.7-liter 1977 911 was towed into the Andial customer shop with loose cylinder heads and a few other issues. A minimal repair would have cost the about \$5,000. The customer, not wanting to spend the money, offered it at a modest price—as is—to Andial as a parts car.

Both engine and transmission came out to be rebuilt and used in other projects. After that, the body was chopped up. It was a sunroof car and the Andial body shop needed a sunroof for a car they were working on. They measured both cars, cut the roof pillars in exactly the same places on both cars and made the swap without much fuss.

When the Andial team put the non-sunroof top on the parts car, Inzenhofer decided it might be a good club racer. It would be something he'd work on over time, using whatever parts became available. Like many of us with project cars, it sat...and sat...and sat. Inzenhofer didn't start working on the car until 1998. Unlike many of us, though, Inzenhofer had access to the Andial parts bin.

Inzenhofer built a 3.6-liter normally aspirated engine with a Carrera induction system, fully electronic management system from a 1992 911 Carrera 2 and a "mellow" cam to keep it running smoothly. A brand-new crankcase, crankshaft, connecting rods, pistons, cylinders and cylinder heads were sourced from the Andial parts stock. The exhaust headers are from a standard 993. Once it was all bolted together, the engine dynoed at solid 293 hp.

Inzenhofer had, at one point, considered putting a turbocharged engine in the

Below, left to right: The first Andial retains its spartan RSR interior. Its 3.0-liter engine sports a host of power tricks. A racing fuel cell fills up the trunk.



Below, left to right: The last Andial's electrics are mounted to the bulkhead. Its 3.6-liter flat six sports 993 headers. 993 Turbo brakes are almost too big.



car. Since he wanted the chassis to be able to handle more power if he chose to go that route in the future, he gave this 911 massive 993 turbo brakes, which are almost too strong for this 2,100 lb car.

For the suspension, Inzenhofer kept it simple and installed Bilstein dampers and torsion bars. The car also got a 17-gallon fuel cell. Perhaps the most remarkable—albeit subtle—part on the car is hidden in its nose: an oil cooler from a 917/10. Estimated market value: anybody's guess.

The wheels are 17 x 7-inch in front and 17 x 9-inch out back. It all fits under the

Inzenhofer from doing much with the car. Around that time, Inzenhofer and Wagner's former business partner, Alwin Springer, retired from Porsche Motorsport. They were also starting to wind down their once bustling service business, moving to a smaller shop in Fountain Valley, California to concentrate on special engine and vehicle projects.

Then, in September of 2011, Wagner passed away, leaving Inzenhofer as the only original Andial partner. With his own retirement looming, Inzenhofer eventually sold the Andial name to

life-long cyclist who owns scores of bikes. He also loves to ski and now spends plenty of time on the slopes in Vail, Colorado.

Inzenhofer is glad that the car found a good home. Though several collectors had expressed an interest in buying it, he knows that Petitti will love, care for and enjoy the last Andial.

Petitti says that the first drive took some getting used to because of how light the car is. With its street performance-type engine, it's more of a momentum car that you need to carry speed with from corner to corner. And, with brakes capable of stopping a train, it takes some finessing. Interior ergonomics are perfect, with seating, wheel and pedal positions exactly where they need to be for performance driving.

A LEGACY OF EXCELLENCE

With so much Andial water under the bridge—800 to 1,000 hp 935 and 962 engines—it's remarkable that the first and last cars from the legendary shop would be ones relatively easy to compare. Both are based on 1970s 911 bodies with normally aspirated engines. The comparison diverges from there, though.

The RSR was purpose-built as Porsche's top-of-the-line production racer and was aggressively developed for the most competitive racing series of its era. The last Andial, on the other hand, was made as a personal project car for club events out of a second-hand 911 and the potpourri of Andial's parts bin.

From an appearance standpoint, the RSR has a much lower, wider and more aggressive stance—its huge wheels, tires and fenders dominate its visage.

The last Andial seems dainty by comparison. Horsepower and handling-wise, the two cars are in different universes. With such a difference in horsepower, contact patch and grip, the RSR will run circles around the smaller car.

But it was never Inzenhofer's intent to make a last, definitive statement with a supercar. If you ever spend time with him, you'd know him to be a very quiet, modest and friendly man who enjoys machinery of every type.

What turned out to be the last Andial displays the love and craft of a man who has always loved what he did. Whether it was dominating sports car racing or occupying his spare time in the corner of his shop, Inzenhofer always did his job with elegance and flair. It's something that shines through, from the first Andial to the last. ■



1977 911's fenders without any widening. Though the bodywork looks a bit unusual, it again came down to parts availability and the idea of keeping the car simple.

The slanted fenders are handcrafted steel pieces that Inzenhofer found in Europe and had been hanging in the Andial shop for years. He says they're a little heavy, but actually help the overall balance of the car. Lighter weight European doors without side beams were also fitted. Since this is a non-endurance race track car, it has taillights but no headlights.

Inzenhofer's last creation was painted the same Grand Prix Weiss as the original Busby/Beverly RSR. For many years it lived as a very simple, plain white car. In 2013, Inzenhofer decided to accent it with the Andial German colors of black, yellow and red.

The interior is remarkably clean and simple: two Sparco race seats, no ignition lock, a couple of toggle switches, an ignition switch, two master power cut-offs and a full roll cage. The entire electronics system was moved out of the engine bay and placed on the bulkhead behind the driver. Gauges are special Andial-faced Porsche pieces.

Though the build was completed in about 2002, business demands kept

Porsche and kept his own shop as HDI, Inc. (Hans-Dieter Inzenhofer). Other than starting it up now and then to keep the oil moving, the little project car again sat for another long period of time.

Eventually, Inzenhofer took it to Willow Springs for some shakedown runs, did a few small fixes and...more sitting. Then, in 2012, good friend Fred Veitch of Colorado Springs, Colorado asked for Dieter's help on a Pikes Peak project, something he learned a lot about from helping Jeff Zwart's racing efforts there for several years.

Through Fred, Inzenhofer met David Petitti, the service manager at Porsche of Colorado Springs and the crew chief for Veitch's efforts. The two became good friends and, when it was time to let go of the final trappings of the Andial business, Inzenhofer offered the car to Petitti, who was looking for a car suitable for both fun and investment potential.

The obvious question: Did Inzenhofer wish he had kept it? Actually, no. He's had a long life of fame and good fortune connected with Porsche racing and he knows that he'll always be involved via panels, discussion forums and his own special projects. But, at age 71, he's also ready to enjoy some of his other hobbies. He's a