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SLEEPER HOT ROD

ANDIAL CO-FOUNDER
DIETER INZENHOFER
WORKS HIS MAGIC
ON A 911T!



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ANDIAL REVIVAL

An enthusiast rebuilds a 1970 911T to perfection with the help of his friend, ANDIAL co-founder Dieter Inzenhofer.

STORY AND PHOTOS BY SEAN CRIDLAND

AS A LIFELONG Porsche enthusiast, Fred Veitch has one thing in mind when he adds to his collection, and it's spelled p-e-r-f-e-c-t-i-o-n. The rare times he's relaxed his requirements have only cost more dollars and hours and, in the end, he reaffirmed that going "all in" from the start is the only approach worth taking. His most recent purchase reconfirmed that point, though his initial folly was graced by deepening a friendship of over 50 years with ANDIAL co-founder Dieter Inzenhofer and building a remarkably original-looking 1970 911T hot rod

It started with Veitch looking for an early 911 driver, a car that didn't push the envelope of current prices and could handle tours and rallies with his wife, Linda. He wanted a nice analog car that would take him back to the days of the first Porsche he drove. After considering several prospects, he found a single-owner, low-mileage 1970 911T that had been in storage since 1978 with just under 44,000 miles on the odometer.

Originally burgundy, the T had been taken down to bare metal and re-painted a Slate Grey that reveals tinges of blue or green, depending upon the ambient light. Veitch became its second owner in June of 2022 and immediately had Inzenhofer look over the car and replace the parts needed to make it safe and reliable.

For younger enthusiasts unfamiliar with Inzenhofer's name and reputation, he, Alwin Springer, and Arnold Wagner founded and ran the Porsche tuner and racing shop ANDIAL. From the late 1970s through the mid-1990s, ANDIAL engines were the gold standard for 935, 962, and 964 racing cars, powering several top teams to many race wins and IMSA championships.



Less known was ANDIAL's service and repair work on the Porsches of discerning enthusiasts in Southern California. Their reputation for immaculate work, excellent service, and unwavering honesty was legendary. The partnership was formally dissolved several years ago after Springer moved over to Porsche Motorsport North America, Wagner passed away, and the ANDIAL name was franchised to Porsche Cars North America. Inzenhofer continued on as ANDIAL HDI (Hans Dieter Inzenhofer).

Now 82, Inzenhofer accepts only the projects he finds more compelling than cycling and skiing. A former California state time-trial champion, he counts seven bicycles of various vintages and applications in his collection and skis in Vail,

Colorado a few weeks every winter. Veitch, also a former bicycle and ski racer, was introduced to Inzenhofer in the early 1970s by his then-brother-in-law, IMSA-GT racer Hal Shaw, one of ANDIAL's customers. Veitch and Inzenhofer have been friends ever since.

After various bits and pieces of the 911T were replaced and the engine tuned, Veitch drove the car around Southern California trouble-free for a month. Confident that all was good, he set off that August for Monterey Car Week, looking forward to the drive and maybe showing it off a bit to his friends. Unfortunately, just north of Paso Robles on Highway 101, the 2.2-liter engine made a horrible noise, spewed an ominous black cloud, and belched a large

amount of oil. As Veitch said, "It ran great until it didn't."

The problem was reminiscent of those stories about a ten-dollar part ruining a sure racing victory. A 52-year-old chain rail snapped and spat one of its pieces between the timing chain and its cog, violently throwing the engine out of sync while running at about 4,000 rpm. The sudden discordance drove one of the intake valves into its associated piston with enough force to shatter both the piston and connecting rod. It launched whatever was left of the valve into the engine case, making a small puncture.

Some people might have ditched the car, caught an Uber, and flown home, but not Veitch. He was on the phone immediately. His first call was to professional



Above: The friendship between Inzenhofer (left) and Veitch (right) led to a remarkable refresh of this Slate Grey 911T, resulting in a sleeper hot rod with performance rivaling that of a classic 911S. From bottom to top, great care was taken to preserve its original appearance while upgrading both power and handling. The car proudly exemplifies Inzenhofer's tradition of excellence.



hauler Tom Ridings. But Ridings had several deliveries to fulfill before he could rescue him. The next call was to his wife, who expressed her sympathies but also chided him a bit for not going "all in" on the car from the beginning. With her blessings, his third call was to Inzenhofer to get the ball rolling for a complete "Dieterization".

Before the day was out, plans were shaping up for Veitch's "just a driver" to become perhaps the last complete rebuild of the Inzenhofer-ANDIAL line. Though Inzenhofer has assisted at several of Veitch's Pikes Peak races, they'd never done a complete car project together.

They agreed that if the car was apart, they should do everything to make it the best driving, performing, and reliable machine possible—something they could both be proud of. Veitch only required the car to stay as original-looking as possible. Otherwise, he trusted Inzenhofer implicitly to do whatever he thought would be best to make a car that would be dependable, quick, and fun to drive.

Once the car was safely back in Inzenhofer's shop, he pulled the engine and laid what pieces were left neatly on a work table. Usually, that would mean parts, but one corner of Veitch's engine looked like a war zone, such as the mess of fragments, shrapnel, and shards found inside the case. Amazingly, a close look revealed the case to be repairable, so Inzenhofer drove it to Ollie's Machine Shop in Havasu City, Arizona.

Not only did Ollie's repair it but they also machined a few new tricks to help with oil flow efficiency. Additionally, they installed steel head-bolt sleeves in the aluminum case. As Inzenhofer explained, the aluminum case and the steel bolts normally heat and cool at different rates, eventually loosening the cylinders and heads and diminishing compression. The steel sleeves minimize that problem.

With work on the case underway, Inzenhofer returned to his shop for the next item on his list. The affected head and cylinder were write-offs, but it only took him a few calls to find a set with a production date of 01/70, matching the others on the engine. Then it was time to decide how much they would increase the engine's displacement. After some debate, they agreed on 2.4 liters because it would require no cylinder boring. Rather, the increase in displacement was done by sourcing a longer stroke crankshaft.

Porsche OEM pistons were matched with locally produced Carrillo rods. A set

of 911S camshafts were selected to trigger German ATE valves. While many enthusiasts would have upgraded to Weber carburetors or fuel injection, with Inzenhofer's advice, Veitch stayed with the original Zenith carburetors to keep the stock appearance in the engine bay.

However, the longer stroke and more aggressive cams required better breathing, so Inzenhofer sketched out specifications for larger intake venturis. He dropped in for a lunchtime visit to his friends at EMPI and they made them on the spot. Because he had them lying around, Inzenhofer bolted on a set of RS valve covers, but with the cooling fins ground flatter so that they wouldn't look out of place in a 911T.

Inzenhofer upgraded from a Marelli distributor to a Bosch with a rotor that cuts out at 7,200 rpm, acting as a safety for over-revving, at least on the upshift. He also rebuilt the alternator and provided a Bosch CD unit that had been in his engine room for decades. Of course, there was a new chain, rail, and tensioner. An Elephant thermostat ensures proper cooling. Exhaust gasses flow

through new headers, with SSI heater exchangers, and out a Dansk stainless sport muffler with the pipes shortened for proportional appearance and to prevent shin bruises for both owner and passersby.

When the engine was completed, it went on the dyno. Along with the other tricks we've already mentioned, Inzenhofer's tune on the more aggressive cam boosted the compression ratio from 7.5 to 8.5:1. Maximum rpm rose from 6,500 to 7,200, resulting in a horsepower output of 190 versus 125 for an original 1970 911T, or about a 50-percent increase with an engine bay that betrays no changes. For both subterfuge and originality, Veitch left the original 2.2-liter sticker on the rear window.

To complement its new engine, Inzenhofer completely rebuilt the transmission, adding all new synchros and bearings. Carquip provided a taller fifth gear (31:22), requiring only 3,000 rpm to cruise at 80 mph. Inzenhofer estimates the car's top speed at redline to be around 150 mph, though Veitch has no plans to test its limits. Shifter linkages

were replaced and adjusted, and a new Stomski billet shifter was added.

Meanwhile, Steve at Ryan Automotive cleaned, painted, and replated all the engine externals, made special brackets and strengthening mounts for the rear 911S anti-roll bar, and relocated the Elephant oil lines in the fender wells to make way for larger Coker-produced exact replicas of 185/70 VR 15 Michelin XWX radial tires mounted on the 15 x 7-inch 911 RS Fuchs rims.

For better cooling, they placed the oil cooler in the right-front wheel well behind a Ryan-designed and fabricated grille. Next, the original torsion bars of 23 millimeters (0.9 in.) were replaced with larger and stiffer 27-mm (1.1-in.) units. Under the front trunk lid are a brand-new fuel tank, a rebuilt wiper motor, a Rennline shock-tower brace, and a period-correct tool kit and jack. The car has new bushings, and Bilstein shocks all the way around. The brakes are original, though, with a new master cylinder and fresh brake pads.

Because the original seats were a little saggy and tight for his six-foot-five-inch

SPECS 1970 911T

	STOCK / MODIFIED
Drive	Rear-wheel drive
Layout	Rear-engine
Wheelbase	89.29 inches
Engine	2.2/ 2.4-liter flat-six
Transmission	5-speed manual
Horsepower	125 / 190 hp
Torque	130 / 200 lb-ft
Weight	2,249 lbs
Pounds Per HP	18.0 / 11.8 lbs/hp
0-60 mph	9.9 / 6.3 sec.*
Top Speed	127 / 150 mph*

*Estimate

frame, Veitch sourced new black/white houndstooth Recaro sports seats anchored by Ryan-built brackets moved two inches back for extra leg room. For safety, Veitch opted for new OEM seat belts and installed a 280-mm (11.0-in.) diameter, deeper-dish ST steering wheel to bring the wheel closer and compensate for the seat being further back.

Inzenhofer had a close associate reengineer and reface the tachometer to show accurate readings up to 7,500 rpm. Then, all the original gauge lights were replaced with more vibrant, longer-lasting LEDs. The exterior paint and chrome were already flawless, requiring no work. The only exterior touch are fog lights triggered by a period-correct interior switch. When the build was complete, Inzenhofer did the final alignment and corner balancing and lowered the stance slightly. Veitch, known for his high standards, was pleased, saying, "Everything on the car is perfect!"

Finally, it was time to go for a test drive. As one would imagine, having an additional 65 horsepower in a car that weighs just 2,249 pounds makes it scoot! With the slightly stiffer, well-balanced suspension, the car is an unmitigated joy on the twisty canyon roads of Southern California. At the same time, the tall fifth gear allows it to run effortlessly on the many freeways crisscrossing the region. The shift action is smooth yet precise. Veitch reports, "Despite its T designation, it drives like a brand-new 2.4-liter 911S. It does everything very, very well, and... it's pretty." One would expect nothing less from an Inzenhofer collaboration. ■



The uprated 2.4-liter flat-six engine delivers 190 horsepower, even with its original Zenith carburetors instead of Webers or fuel injection. While this machine may appear to be a sleeper from the outside, its true high-performance character is revealed underneath.

