# "Hammer Time"

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### Mjølner A hard-hitting 930

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# Don't let any arguments of originality and purity cloud your thinking.

Justin Broughton and Pete Koch haven't. They aren't much worried about matching numbers and originality when it comes to the 930 they built together, a modern-retro tribute to "Baby," the 2.1-liter turbo 911 that Porsche raced in 1974. While intended for the street, it lives up to its nickname: Mjølner. Like the legendary hammer of the Norse god Thor, this 930's character is bluntly powerful.  $\Leftrightarrow$  When speaking with Broughton and Koch, you realize their car is the result of years of dreaming, thinking, sketching, collecting, good fortune, and hard work. Theirs is a fortuitous friendship that bonded into a partnership of two men with remarkably disparate backgrounds who share a common passion for what they view as the golden era of Porsche—and all of motorsport: the beginning of the turbo age.

#### BROUGHTON GREW UP near Raleigh,

North Carolina. As a kid, his main hobby was building models of all kinds: cars, boats, ships...you name it. As many of us did in the 1970s, he had an especially keen appetite for Tamiya's scale model racing cars. Their technical drawings and the resultant 3-D plastic renderings were so realistic and detailed you could almost imagine yourself building the real thing. scrimping and saving and was able to get his first Porsche during his last year in medical school. It was a little rough around the edges, but it was the start of a dream. It's a car he speaks about with great affection and one that, unfortunately, met a sad end when someone pulled out in front of him while on the way to work. He's had several since then.

Broughton was especially drawn to Tamiya's Porsche models: the turbo ones. Though the prototype 908s and 917s were exotic and swoopy and fast, the 911 Carrera-based cars inspired a sense of pushing the limit, exploring what could be done with an already classic silhouette.

At about the same time, a school friend's father acquired a 911 and would use it to drive the kids to soccer games on Saturdays. Broughton fell in love. It's a passion that has led him through several interesting cars, into a fledgling aftermarket business, and to owning a home on the island of Sicily where he keeps, you guessed it, a Targa.

Broughton eventually did some



**KOCH GREW UP** in Dayton, Ohio, where his dad got him into karting early on. He soon developed a passion for all things motorsport, but it was on one of his dad's business trips that he first encountered Porsche. After passing a dealership on the way to a meeting in the early 1990s, his dad kept his promise to stop by on the return trip. Koch sat

Mjølner is an eye-catcher in just about any setting. Koch (below, left) and Broughton stand next to their tribute to what they view as the golden age of Porsche racing.









in a 964, a 968, and a 928-all of which he thought were very nice.

Then, just as they were leaving, a 930 pulled in. That was *it*; he vowed to own one someday. Not long afterward, he found a poster of a 930 at the school book fair and put it up in his room, dreaming about one day owning a real one. That same poster hangs in the shop he and Broughton run today, and the car in this story is usually parked beneath it.

Koch went as far as he could go in karting, at one point being named a CRG factory-supported driver. But he was getting too big for karts, and realized that his goal of driving an open-wheel race car wasn't going to pan out. There wasn't enough family or sponsorship money, and he had grown larger than the current crop of open-wheel jockeys, giving away 40 pounds and three inches of aero. Along the way, he started apprenticing with master mechanic Ray Thacker, who was running the White-Allen dealership's IMSA program. Koch started gaining more practical mechanical knowledge about Porsches and racing cars—and discovered it was a skill he enjoyed.

After high school, Koch moved to North Carolina for college and switched to sport bikes for entertainment. It was fun and relatively economical compared with car racing, and he got pretty fast on the track. Downside: enough broken bones and concussions that his doctors told him to cool it.

Success in his career meant that Koch could afford the 930 he'd always dreamed about, but this, too, came with its downsides. He found the corporate world to be numbingly boring—though he found that you can release a lot of anxiety by working on your dream car. He diverted his attention after work and on weekends to rebuilding and restoring his first 930. Koch says it was an exceptional driver, a car he occasionally ran during track-day events at Virginia International Speedway.

**THAT'S WHERE HE** met Broughton. When the latter stepped up to a 930, his enthusiasm for Porsche's first turbocharged road car led him to organize an event at VIR called Turbo-Palooza. It gathered together all the friends and fellow enthusiasts he'd encountered in various online forums. Broughton was immediately impressed by Koch's immaculate yellow 930 and his on-track driving. Encounter turned to discussion, discussion turned to the sharing of ideas, and sharing of ideas led to a partnership to help design and build parts that reimagined Porsche days of yore—with a contemporary twist. Some of the things they came up with were a new take on the famous 935 "lollipop" seat, a 917-style gas pedal that eliminated the sloppy little plastic stock one, a front strut cross bar, a tower shifter, and more.

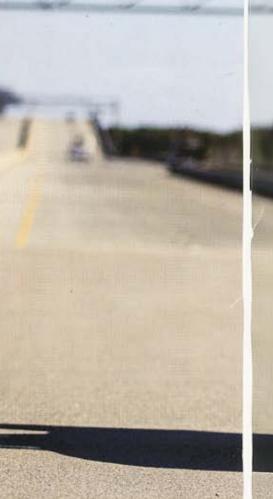
The pair were fascinated by the original Porsche racing team—often underfunded and working with a great sense of creativity, spontaneity, and improvisation: fast and light, maybe a little rough around the edges, and squeezing power from wherever they could find it. It was an era far removed from the Porsche we know today. There's no doubt this 930 means business. Fully trimmed interior (opposite) is more luxurious than expected. Twelveinch shift tower and full gauge set are faced by a carbon-fiber, 935style driver's seat and three tiny passenger seats.



D-Zug's massive intercooler helps **Mjølner** achieve its claimed 607-horse output. 19-inch **Forgeline** wheels lend a commanding presence but dwarf the brake rotors. Trellised rear bumper is both tantalizing and revealing.







There were two inspirations for their car. First was the famous Martini-liveried Carrera RSR turbo driven in 1974 by Herbert Müller/Gijs van Lennep and Helmuth Koinigg/ Max Schurti. The other was the 1976 935 prototype-the one with the traditional 911 headlights and no side rails-driven by Jacky Ickx and Jochen Mass. In building their car, it was important to Broughton and Koch-just as it was to Ernst Fuhrmann when building the 1974 RSR turbo-that it not be a pure racing car and that it keep true to the original 911 chassis and look.

But the Broughton/Koch philosophy was inverse to Fuhrmann's. Whereas it was important that the original car maintain its ties to the 911 line, Broughton and Koch wanted to evoke as much of the Porsche

racing heritage as they possibly could. They wanted to see how far they could take things with a 930 that could be driven every day. Because it was to be a streetable car, they were not limited by sanctioning rules on body parts or engine size. Their idea was to capture the feel of the period rather than any particular car.

The 1974 Martini RSR turbo race car inspired the 930-based 911 Turbo Carrera street car. When Broughton found the donor car for their project-a 930 abandoned by its owner for financial reasons-inspiration had come full circle.

Through Turbo-Palooza, Broughton met a fellow enthusiast who had begun building an incredible 3.5-liter 930 engine for a 1986 chassis, but he had reached a point where he could no longer continue the project. After

some discussion, Broughton acquired the car, and it became the foundation on which he and Koch could realize their vision of what a 930 hot rod could-and should-be. That's the car they now call Mjølner.

**KEEPING IN MIND** the elements they love so much about Porsches of the 1970s and '80s-the flares, wheels, twin-turbos, twin pipes, and spitting flames on downshifts-they set about their job. They were looking for something raw, aggressive, and intimidating, yet easily driveable.

As they began to gather parts and pieces, their ideas began to gel. Some of what they wanted was readily available. Some of it wasn't. So they went to work creating their own bits and pieces.

Looking at the car from the exte-



rior, you immediately notice its aggressive forward rake and sensuous curves, which are accented by the flame-orange striping on the front bumper and rear wing. As an enthusiast, it doesn't take long to notice the prominent details, starting with the RSR turbo-style front bumper and front fenders, the early handshaped 935/76-style steel rear quarter panels, and the striking 935/76 tail with its carbon-fiber wing blade. Less obvious are the fiberglass hood with a through-the-hood fuel filler, 935-style hood-pin plates, a trellismodified rear bumper, HID headlights, and Vitaloni Sebring mirrors.

Koch's Ohio connections came into play as they worked out an arrangement with David Schardt at Forgeline for a set of centerlock wheels inspired by the factory 908





speed 930 gearbox with a horsepower-freeing lightweight flywheel and a Stage 3 clutch. For those used to the overlapping, seamless gearshifts of a contemporary seven-speed PDK, a four-speed might at first seem woefully antique, but the engineers at Porsche found that, with all the power and torque supplied by the turbo engines of the day, five speeds were unnecessary. Turns out they knew what they were doing.

To make all that power manageable on twisty roads, the car uses Bilstein RSR-style coilovers from Rebel Racing Products, custom valved and sprung for the car front and rear. RSR front suspension bushings, 935 rear spring plates, rear spherical bearings, and a 935-style front strut brace round out the chassis modifications. Stopping

power is provided by original 930 brakes with upgraded pads, fluid, and generous cooling through ducting in the front bumper.

THE VISUAL EFFECT of this 930 is obvious. Long stares and dropped jaws are seen on more than a few passersby during our photo sessions. Several times, we think we're in trouble as some truck or blackand-white slows to get our attention-only to ask if it's okay to snap a few photos. Some know the car is Porsche-based, a few know it is a turbo, but everyone knows it is something special.

And it is. The car's light weight, combined with all that raw power, means the big tires work hard to stay pointed in a straight line under acceleration

and 907 of the late 1960s and early '70s, as well as the 935. Miølner's 18x10 front and 19x14 rear wheels are mounted on centerlock hubs. They're wrapped with 255/35R18 and 355/25R19 Pirelli PZero tires. which contribute to the steamroller appearance of the car. They keep it glued to the road, too.

Broughton and Koch wanted to maintain the same approach with the interior: finished, somewhat refined, but entirely purposeful. Enthusiasts familiar with the 1970s will appreciate the 935-style carbonfiber lollipop seat, which was created from molds of an original factory seat. For historic effect, it's paired with a carbon-fiber half seat-a tribute to the FIA-mandated "passenger seat" in the original 1974 RSR turbo. The pair built a 935-style quick-

shifter and mounted it on a 12-inch tower so the driver's right hand spends less time away from the vintage Momo "Jacky Ickx" steering wheel. An original Porsche Motorsport 10,000-rpm tachometer and VDO 935 boost gauge are just behind the wheel. The 917-style RSR throttle pedal is superior to the original plastic pedal that it replaces. Another nod to 1970s Porsche racing is the ignition key, which is drilled in the style of the 917.

In addition, the interior and trunk space are finished in contrasting pile, leather, and Alcantara with thoughtfully done cross-stitching. Finally, there is a stereo system onboard, though it is thought to be useless and extraneous by the car's owners, who far prefer the rasp of a turbocharged flat six.

That engine is a 3.5-liter stroker built up from a boattailed, dowelpinned 3.3-liter 930 case using Pauter connecting rods. Ported and twinplugged cylinder heads are mounted using ARP head studs, and the valves use motorsport springs and are activated by 993 GT2 cams. Induction is handled by a Carrera 3.2 manifold, while a Megasquirt electronic fuelinjection system feeds gasoline to all six cylinders. Forced induction is provided by two Garrett GT-30 turbochargers, which push air through a giant D-Zug Produkte intercooler. Exhaust gases exit through factory 935 headers.

On the dyno, the engine registered 607 hp and 544 lb-ft of torque while running 1.5 bar of boost. All of that power transfers to the drive wheels via an original Porsche four-and to keep the car from swapping ends in the corners. The car is, after all, a 930, and it still has many of the characteristics that 930 drivers either loved or loathed.

Is there turbo lag? Yes. Does the power come on strong in huge chunks? Yes. Is it a bit rough to drive around town? Yes-as expected. Is it fun to drive? Oh yeah.

Compared with today's Porsches and their traction-controlled litany of driver aids and environmentally friendly, multi-mode exhaust systems, Mjølner is raspy, raw, and instantly identifiable as an air-cooled Porsche Turbo. Driving it not only gathers attention but demands attention-all of it-from the pilot. And that's what makes the car fun. Sure, any mistakes are yours and yours alone, but when you're hooked up, so is all the fun.

The fact that the engine practically hangs out through the trellised rear bumper means you can hear all of Mjølner's shafts, belts, and breathing at idle, as well as all of its metallic whining as it flies by under acceleration. Besides, all those tubes, turbos, and pulleys look like they belong on Han Solo's Millennium Falcon. You're not sure what they all are, but you know they make it go faster.

While we've all gotten used to Porsches that are smooth and sleek and effortlessly fast, many of us still long for the days when the classic 911 shape started bulging and sprouting spoilers and wings. Those were the days when Hermann Linge, Ernst Fuhrmann, Ferdinand Piëch, Peter Falk, and Norbert Singer were busy stretching the limits of the original concept and looking to maintain the dominance established by the 908 and the 917 in international racing.

Those were wild times of constant development, ever-increasing power outputs, and increasingly radical approaches to aerodynamics. It was a magical time, one that captured the imagination of many a young man dreaming of his ultimate car-a time that Broughton and Koch have encapsulated in their beautiful and bluntly powerful 930.

Mjølner's luggage bay puts carefully crafted Alcantara next to a through hood fuel filler and a massive strut brace. Front turn signals are integrated into the headlights.