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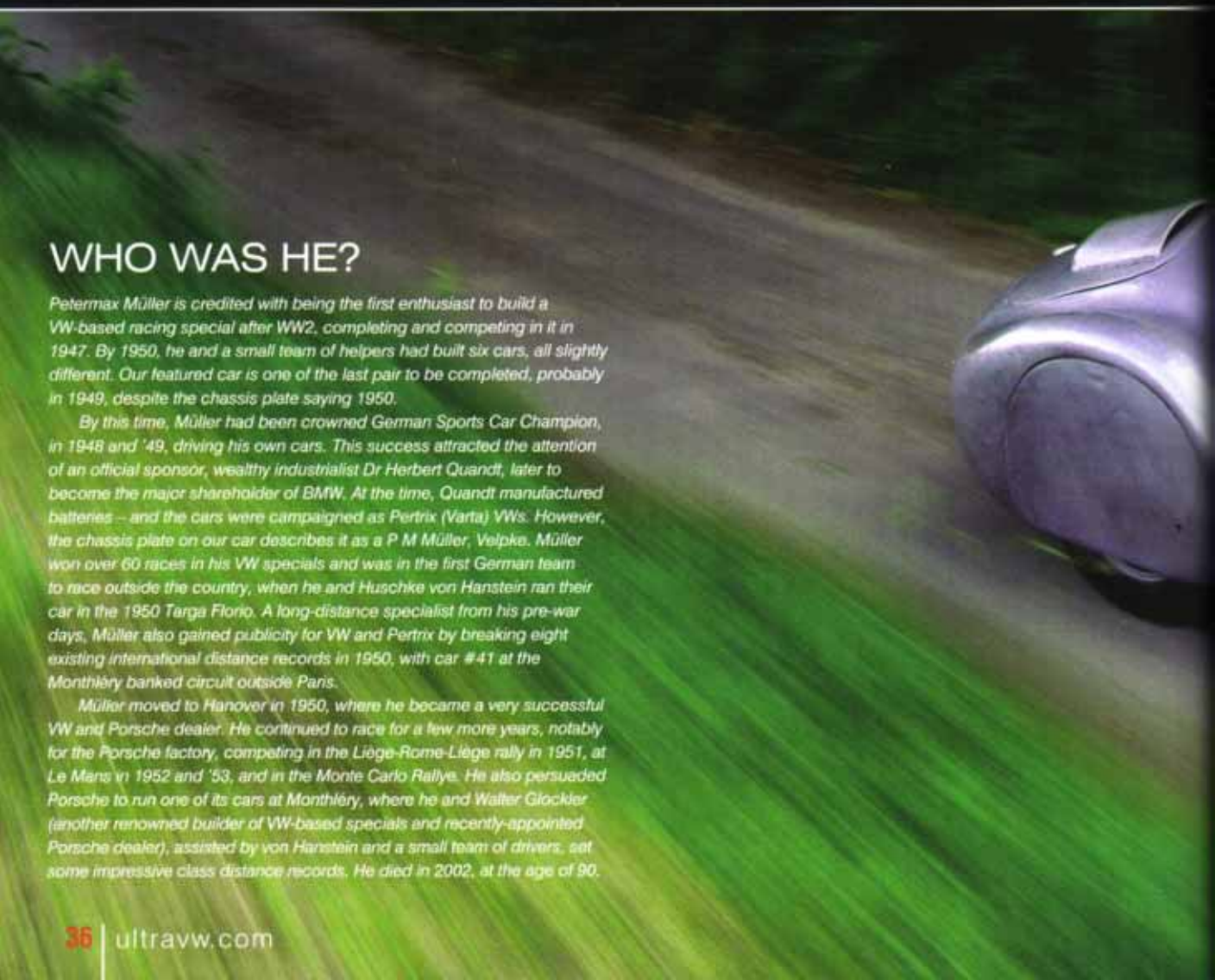
The Petermax Müller special

In this exclusive *Ultra VW* feature, we gain access to one of the most important vehicles in VW (and Porsche) history: a car built in the immediate post-war period which could be viewed as the progenitor of all Porsche sports racing cars. Built from a mixture of wartime Volkswagen components and with many hand-crafted one-off engine parts, the Petermax Müller special, as it has become known, stands out as being one of the most fascinating machines of its era

Words & Photos: Delwyn Mallett



WHO WAS HE?

Petermax Müller is credited with being the first enthusiast to build a VW-based racing special after WW2, completing and competing in it in 1947. By 1950, he and a small team of helpers had built six cars, all slightly different. Our featured car is one of the last pair to be completed, probably in 1949, despite the chassis plate saying 1950.

By this time, Müller had been crowned German Sports Car Champion, in 1948 and '49, driving his own cars. This success attracted the attention of an official sponsor, wealthy industrialist Dr Herbert Quandt, later to become the major shareholder of BMW. At the time, Quandt manufactured batteries – and the cars were campaigned as Pertrix (Varta) VWs. However, the chassis plate on our car describes it as a P M Müller, Velpke. Müller won over 60 races in his VW specials and was in the first German team to race outside the country, when he and Huschke von Hanstein ran their car in the 1950 Targa Florio. A long-distance specialist from his pre-war days, Müller also gained publicity for VW and Pertrix by breaking eight existing international distance records in 1950, with car #41 at the Montlhéry banked circuit outside Paris.

Müller moved to Hanover in 1950, where he became a very successful VW and Porsche dealer. He continued to race for a few more years, notably for the Porsche factory, competing in the Liège-Rome-Liège rally in 1951, at Le Mans in 1952 and '53, and in the Monte Carlo Rallye. He also persuaded Porsche to run one of its cars at Montlhéry, where he and Walter Glockler (another renowned builder of VW-based specials and recently-appointed Porsche dealer), assisted by von Hanstein and a small team of drivers, set some impressive class distance records. He died in 2002, at the age of 90.

…your country has been clubbed to its … by the armies of the Allied powers from … west and the Russians from the east – … your towns, cities and factories have … reduced to piles of rubble and tangled … Only a few years earlier, your country was … powerful in Europe, with the aspirations … to subjugate the Continent. Your … cars had pushed the boundaries of … into new areas of sophistication, … the opposition gasping in their methanol-… exhaust fumes.

… the war you had been a successful … man, with a motor dealership in Berlin, … prominent racing driver, winning your class … Monte Carlo Rallye and coming third … Liège-Rome-Liège rally. Your future … bright, but now you find yourself standing … banks of the River Elbe in the Russian-… zone, and your instincts tell you it will … on the other side, so you slip into the … and swim across to start your life again.

… his dip in the Elbe, Petermax Müller … his way to friends in the village of Velpke, … from the damaged VW factory at … Keen to get back into racing – and … little resources, but all of the charm and bargaining skills of a motor-trader – he soon gathered together enough parts and 'hands' to build a 'special'. Working from a converted cow-shed, a hand-made streamliner, built on a Kübelwagen chassis with a Schwimmwagen front end, soon started to take shape – and by the end of 1946 it was ready to race. Competing in the up to 1100cc class, Müller quickly became the man to beat, becoming the German Sports Car Champion in 1948 and '49.

Müller's speed and ability to win in his humble little VW-based special were not entirely down to his skill at the wheel, as his engine was far from a conventionally tuned VW unit. Müller had good connections and managed to obtain from Porsche, then based in Gmünd, Austria, several sets of 'Sturmboot' heads, which were surplus to requirements. These high-performance heads had been developed during the War for a VW-powered small assault craft. (Ferry Porsche decided that they would be far too expensive to manufacture when he eventually started to develop his own plans for a VW-derived car.)

Müller's friend, co-driver and later Porsche racing manager, Huschke von Hanstein, recalls in his excellent autobiography that, back in Velpke, he and Müller arrived at the door of an ace engine man named Vogelsang, bearing 'gifts' of fresh farm produce. Vogelsang had been badly injured in the War but was still keen to stay in the world of motor sport and readily agreed to prepare Müller's engine. The trick cylinder heads subsequently became known as 'Vogelsang heads' – perhaps a convenient euphemism to cover their militaristic origins? In Vogelsang's expert hands, horsepower of the 1100cc engine would be more than doubled, from a timid 25 to a roaring 56hp.

For many years, this unique piece of early VW history was on loan to Volkswagen's own Museum in Wolfsburg. However, it has recently passed into the ownership of Oliver Schmidt and Thomas Koenig, a pair of young enthusiasts who have built up an enviable collection of historic Volkswagen and Porsche cars (and boats) which, early next year, will go on public display in a new museum in Hamburg (www.prototyp-hamburg.de).

As it hadn't turned a wheel in years, the first task was a strip-down, clean and reassembly in Prototyp's own workshop. When it came to the engine, German restorers were reluctant to take on the job without a workshop manual to hand and, given the unique cylinder heads and other

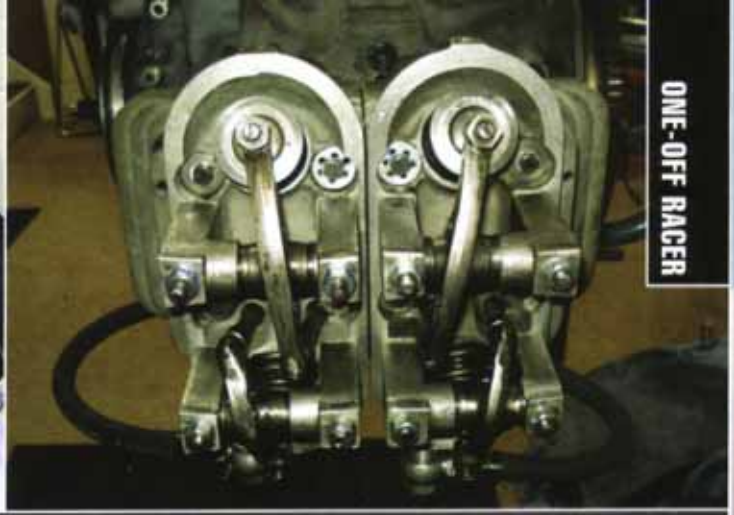
modifications, it was unlikely that one would turn up in a local autojumble! Therefore, the engine rebuild was entrusted to British specialist Andy Prill. Andy's bread-and-butter is building racing 356 and 911 engines, including the exotic Carrera four-cam, but he simply buzzes with excitement when he describes pulling this 60-year-old, 50-horsepower pushrod motor apart. The very fact that this record-breaking engine actually started life in the back of a Kübelwagen, and that the crankcase is stamped 1944, sends a slight shiver up the spine.

When the two-piece crankcase was separated, it revealed a standard VW crank – but beautifully polished on all of its surfaces. Sadly, the crank journals had been reground so many times that it was so far undersize that specially-made bearings would have to commissioned to re-use it, and it has been replaced by a standard crank – certainly for the time-being. Andy also discovered that one of the bearings had been machined out of aluminium – surely a temporary 'fix', as it would barely see the car around the block, let alone a track. The engine, as it came to Andy, had been set up to run on methanol and, as a consequence, sported a fantastically high compression ratio. This has been lowered a little in the rebuild, to 11:1, but still needs race fuel to fire it up.

But it's the heads that really astonish. A bigger leap from the standard VW head would be hard to imagine without resorting to overhead cams. From puny ports and parallel valves, the 'Vogelsang' heads now feature hemispherical combustion chambers and larger inclined valves in a full cross-flow configuration. Each cylinder has an individual head, fed by its own tiny Solex carburettor. The pushrods operate as standard, but the 'over-under' valve arrangement requires one short and one extremely long rocker arm. The individual aluminium rocker covers run vertically – and look as if they are made from two castings, one for the sidewall and the other being a welded-on 'lid'.

With all of the extra horsepower being produced, an increase in cooling power was also deemed necessary. This was achieved by fitting back-to-back fans, accommodated by welding in a strip to increase the depth of the fan housing.

Unusually, the exhausts are rectangular in section, following the shape of the exhaust port in



curve out from under the engine, totally ced and stopping far short of the tail.

rev-counter is driven directly off the end of rankshaft and is connected at the other end 8000rpm instrument with a hand-painted at 4800rpm, although Andy is confident will safely rev way beyond that figure.

The nose-mounted fuel tank was originally mented by a second tank alongside the , but this has now been removed and ced by the battery.

Mercifully, any attempt to 'bull-up' the nted bodywork has been resisted. This is an act for which the word patina must have been . When on display in the VW Museum, an rned log and hammer stood beside it demonstrate the 'high-tech' tools used in its construction. The aluminium body panels were beaten into shape and then riveted together over a simple angle-alloy frame. The more extravagantly curved panels over the wheels still show the hammer blows used to create them!

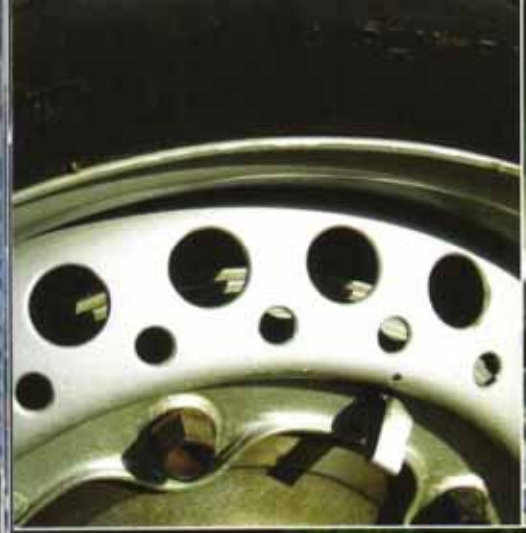
Whether by design, or lack of it, the body seems to be quite 'loose' in relation to the chassis. Lean on it and it moves a surprising amount before it tightens up. The first Müller car was a pretty ugly beast by any standards but, by the time the 'boys' got to the end of their production run of six, the shape had evolved into a much more aesthetically pleasing collection of slopes, dips, fairings, vents and scoops. Perhaps not to everyone's taste but I adore it, particularly the low-level lights.

The extensively-drilled wheels are VW rims, date-stamped 1949, and the rear spats can be removed in a trice by pulling a tiny, protruding, spring-loaded catch. Front spats were fitted for record-breaking attempts.

At approximately 6 feet 10 inches, the special is around a foot shorter between the wheels than a standard Beetle and the front track measures approximately 4 feet. The car doesn't look particularly small when you stand beside it, although it's certainly lower and narrower than my Speedster. It's only when you try to board the beast that you realize that the foot out of the chassis has all come out of the bit where the driver sits! I've never sat so close to a steering wheel – it's virtually impossible to get in the car without first removing the wheel.

Conveniently, the standard Beetle wheel has

Engine (above) has specially-made cylinder heads with 'over and under' crossflow valve configuration. Note the extra-long inlet rocker arms and individual rocker shafts. Our man Mallett (left) looked right at home behind the wheel of the slippery racer...



a knurled brass knob replacing the horn button – a quick twist and the wheel comes off. Wheel in hand, you can then lower yourself into the scraps of metal and leathercloth optimistically masquerading as a seat. Rumour has it that the seat originally saw service in a WW11 aeroplane, and there is no reason to doubt the claim. The seat back is absolutely vertical and, with the wheel back on its splines, the driving position can only be described as pre-war.

Change of direction is achieved by utilizing the 'Hendon Shuffle' (for younger readers, this is the now out-of-fashion mode of cornering that police drivers were instructed to use). With a metal tonneau in the neck to the right and a flimsy door under the left armpit, it's hard to decide whether to be elbows in or out of the cockpit when cornering. Even the leg position is compromised, with the pedals much closer than you might expect, forcing the knees up. I'm not tall, but either Petemax Müller was very short or driver comfort simply wasn't on the agenda. A tiny screen attempts to prevent flies entering the driver's nostrils – and the world's smallest wing mirror, presumably fashioned from a sidelight, grudgingly allows the pilot a glimpse to the rear. It is almost inconceivable to think that this car was thrashed around Monthléry for three unbroken days, as even a short race would test the stamina of the driver.

Period photos show the car sporting trumpets on the carbs, but today air-cleaners are in position to stop foreign bodies getting into the works. Before starting the engine, Andy warned me it was noisy – but just how much so still came as a surprise. Air-cleaners off, ignition on, a few squirts of race fuel in each carb, a stab at the starter, a ripple of combustion from the engine – repeat until running. It took only a few attempts before the air was filled with an almost deafening cacophony of explosive noise. Above the din, Andy screamed that if you could 'tune out' the exhaust noise, the engine was turbine smooth and with almost none of the mechanical 'clatter' that you might expect from a Beetle or 356 unit.

The motor certainly responded to the throttle without hesitation. From the driver's position there was a very slight advantage in that the noise was behind you, but it still felt as if you were sitting in the engine nacelle of a Dornier bomber. The thin metal skin rattles and vibrates but, perhaps at speed, it would all settle down to a bearable and harmonious hum, as some racers do, but I didn't have the chance to find out.

All I know is that the guys who went off chasing records in this fabulous little rocket, or stormed around Sicily on the Targa Florio, were heroes, or mad – or a bit of both. ●

Hand-beaten aluminium body helped to squeeze every last drop of performance out of the tiny VW-based engine. Even the wheels were drilled to save weight...