

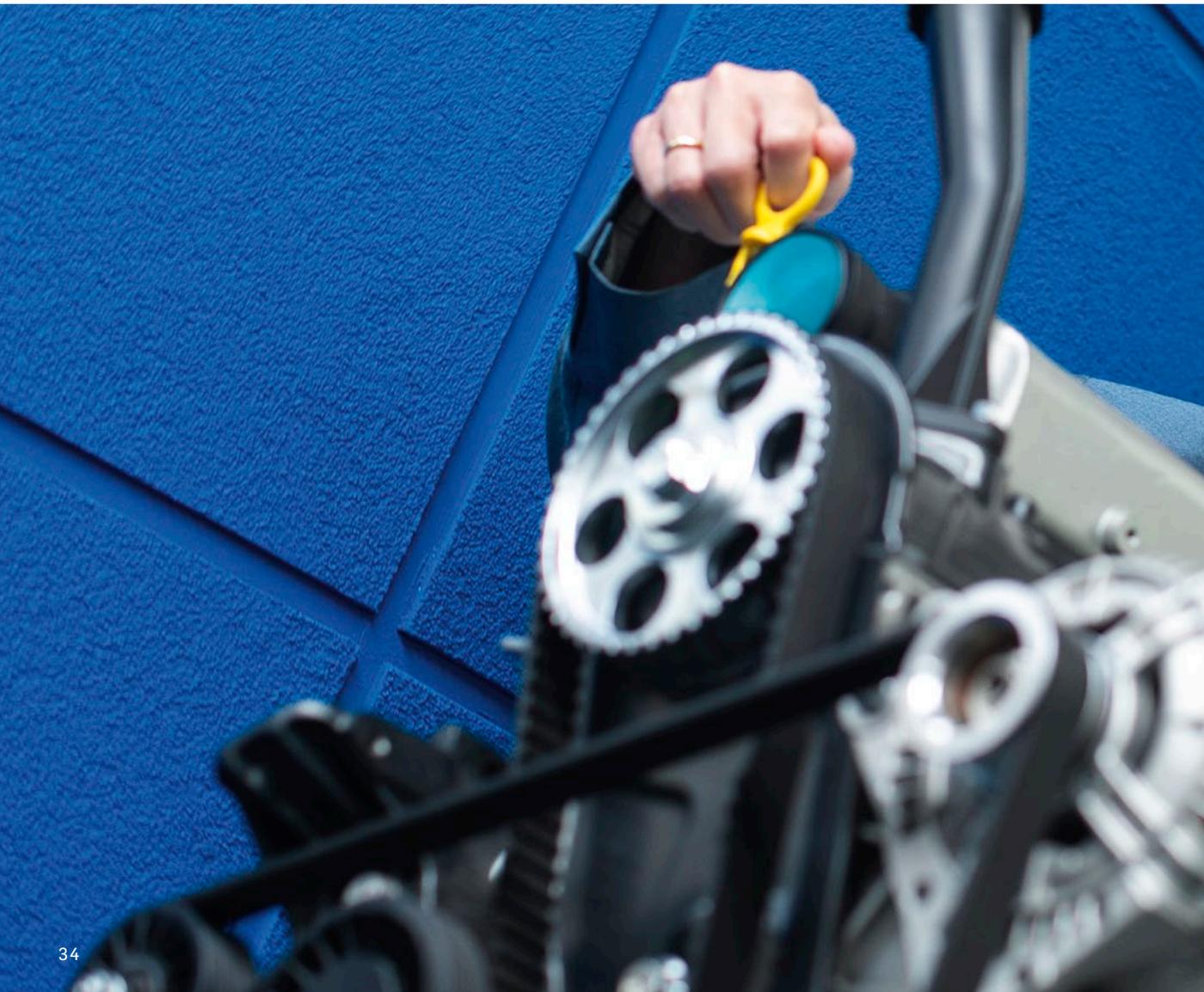
The virtues of an engineer

For three decades, **Dr. Ekkehard Pott** has been working to develop combustion engines with ever lower levels of emissions – following fact-based and linear processes.



Facts over feelings // For a logical and clear-headed engineer like Ekkehard Pott, this statement is a way of life. So getting all of Volkswagen's petrol and diesel powertrains ready for the forthcoming introduction of the Euro 7 standard is the perfect job for him. He adopts a level-headed approach to limit values and technologies; one must match the other, without question. In conversation, Pott is focussed at all times, not once veering off topic. He says little about himself, but speaks readily about production series, technology and physical interconnections.

Pott's career history has also followed a clearly mapped-out path. Before he had even left school, he had decided to pursue a career in engineering. His decision to focus on mechanical engineering was inspired by the state of the army truck that he was constantly asked to repair during his national service. Keen not to specialise too early in his training, Pott opted to study automotive engineering. »The course gave me a full 360-degree view of automotive technology,« says Pott today. The young engineer first came into contact with Volkswagen during a university project in which he optimised a front-end structure to improve safety in the event of an accident.



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»They took me seriously right from the beginning,« he recalls. Pott immediately knew that this company was where he wanted to work. In 1991, after completing his degree, Pott commenced a technical traineeship at the Volkswagen plant in Wolfsburg.

Over the next 30 years, he remained loyal to Volkswagen and soon began to specialise in combustion engines. Even at the beginning, exhaust gas purification played an important role; his first engine research task was to develop emission reduction concepts for lean-burn engines. »We already knew that we would have to get to grips with the problem of NO_x emissions.« While working, Pott also embarked on a doctorate at the Technical University of Berlin, which he completed within four years. As part of his work, he developed a vehicle-specific simulation program that could be used to predict not only emissions, but also fuel consumption, allowing direct connections to be made between these two parameters for the first time. From 1997, Pott worked on the development of an NO_x adsorber for lean-burn spark-ignition engines with direct injection, with which he eventually moved to the department for spark-ignition engine pre-development. In 2000, the technology was rolled out in series production in the Lupo. Pott responds matter-of-factly when asked if he is proud of this achievement: »It had to work that way, there was no technological plan B at that point.«

In 2002, Pott was asked to head up the spark-ignition engine pre-development team. »I felt like I had won the lottery,« recalls Pott. But his new role was still a major challenge. Pott was suddenly in charge of 60 employees rather than five; at the same time, he had to stay fully up to speed with all



technical progress because Volkswagen was busy developing the first generation of direct-injection petrol engines with turbocharging, which were later marketed as the TSI engine. »This technology enabled us not only to meet the consumption targets we had set ourselves, but also to boost torque to deliver a significantly better experience behind the wheel.« FVV also played a role in the company's success: »Many projects delivered fundamentally important findings on direct injection in spark-ignition engines.« Pott also recruited a number of employees who had completed their studies or doctorate as part of an FVV project team, which meant that they joined the company with a wealth of relevant knowledge.

Once Pott's work had helped petrol engines get significantly closer to catching up with diesel, the engineer switched sides in 2007 to manage the series development of large diesel engines – namely five-cylinder models and the V10 engine. Five-cylinder engines are primarily found in light-duty commercial vehicles, particularly the Transporter series of vans. The shift towards four-valve and common rail technology was under way, and the company wanted to reduce the number of engine variants it produced. Pott's task was therefore to adapt the four-cylinder diesel engine to the Transporter, necessitating a design specifically for commercial vehicles that took load requirements and available space into account. By 2009, this goal had been achieved – but many van drivers were sad to say goodbye to the five-cylinder engine. Pott resists this temptation: »You can't let your heart rule your head when making these decisions. The four-cylinder model has proven to be more cost-effective, more economical and more reliable.«

By 2017, the engine development team at Volkswagen were cleaning up in the wake of the diesel scandal. Pott – maintaining a clear head as ever – decided against a more comprehensive management role, instead opting to return to a position with a more technical focus. His ambition was a good match for the company's needs; when preparing its engines for the Euro 7 emissions standard, Volkswagen



DR.-ING. EKKEHARD POTT, born in 1964, studied mechanical engineering at RWTH Aachen University. Having specialised in automotive engineering, he embarked on his career in 1991, working in a number of positions in Volkswagen's engine research and development departments. He is currently responsible for modular design development, calculation, methods and exhaust gas aftertreatment. Pott is also Chairman of FVV's Scientific Advisory Committee.



needed to demonstrate that its engines were fully compliant with the regulations. This was a task that Pott liked the sound of. Around this time, he also became more involved with FVV, which he had first encountered in 1995 as a young engineer. In 2020, he was appointed Chairman of the research organisation's Scientific Advisory Committee, during a phase of major transformation towards climate-neutral powertrains. »The impetus that pre-competitive collective research can provide in this phase is more important than ever before,« says Pott with conviction.

Although Pott never fails to present a balanced and carefully thought-out argument in his role as an engineer, when he opens up his own red and white T2 for the photographer, his expression is one of pure passion and joy. Pott bought the 1979 van from a dealer in Arizona and had it fully restored, taking care of every detail himself. The switches, for example, are originals sourced from other vehicles. The T2 only goes out in good weather; Pott has a garage full of other vintage vehicles to choose from on grey days. His hobby isn't a point of contention in his marriage, either: Pott's wife shares his passion for historic cars and the couple enjoy going to rallies together. //

