



Imagined over 90 years ago, now brought to life: Audi Tradition presents the Auto Union Type 52

- Presentation of the Schnellsportwagen with impressive design and exceptional driving performance at the Goodwood Festival of Speed 2024
- Auto Union Grand Prix race car as the technical foundation
- Stefan Trauf, Head of Audi Tradition: "Our goal with this dream car that remained a dream in its time is to get everyone excited about design and technology."

Goodwood/Ingolstadt, July 11, 2024 – Everyone knows the Auto Union Silver Arrows, the legendary 1930s Grand Prix race cars. But hardly anyone knows that a street-legal sports car version with a 16-cylinder engine was also planned for these pioneering racing cars: the Auto Union Type 52. Now Audi has built this car, the Schnellsportwagen, and will present it to the public for the first time at the Goodwood Festival of Speed in England in mid-July.

Back to the time when the Auto Union Type 52 was imagined: Auto Union AG, formed in 1932 from the merger of Audi, DKW, Horch, and Wanderer, became a motorsports contender from early on to make its new logo, the four rings, a household name around the world. The same year, the rules were published for the new 750 kg formula used in the Grand Prix held from 1934 to 1936. In 1933, Auto Union AG commissioned the Stuttgart design office of Ferdinand Porsche to develop a race car based on the 750 kg formula. Work on the Auto Union Type A (internally, Porsche called it the Type 22) began in March of 1933. Just one year later, Hans Stuck set a world record driving the car on the AVUS circuit in Berlin. When the innovative Auto Union and Mercedes-Benz race cars burst onto the international racing scene, the legend of the Silver Arrows was born.

Swift as an arrow, these legendary powerhouses captivated audiences with their futuristic design and revolutionary technology. While Mercedes-Benz favored front-mounted engines, Auto Union was the first to place the engine behind the driver. This mid-engine layout remains the standard in Formula One today. In the years that followed, Auto Union set several world records, winning numerous hill climbs, three German championships, and the European championship in 1936 with the advanced Auto Union Type C. And the rest is history...

Or maybe not quite, as one part of the story has yet to be told. Few people know that while the Grand Prix race cars were being developed, Auto Union AG and the Ferdinand Porsche design office also planned a street-legal sports sedan. The concept papers called the vehicle "Schnellsportwagen", apparently its intended marketing name. Today, with its distinctive characteristics, the car most closely resembles a classic Gran Turismo.





The Auto Union Type 52, as the project came to be known, was intended to be sold to customers for driving in long-distance races such as the Mille Miglia or in sports car competitions such as the endurance races at Spa-Francorchamps or Le Mans. There was also talk of the car being a factory race car.

Sporty dynamics and everyday suitability are listed in the Auto Union Type 52 design specifications

As early as the end of 1933, the Porsche design office drew up the first design sketches, which took on a more concrete form in 1934. The project managers decided to build a test car - but as far as we know today, it never materialized. The project was abandoned in 1935, and its trail lost in the archives of Audi and Porsche. But the developers left much groundbreaking work on paper. It was based on the technology of the Grand Prix race car that was developed at the same time: The chassis from the Auto Union Type 52 was designed as a ladder frame with a mid-mounted engine. The drivetrain of the Auto Union Type 22 was used, but the compression of the powerful 16-cylinder engine was reduced to allow the car to run on regular gasoline. At the same time, the engineers reduced the gear ratio of the Roots supercharger. The Auto Union Type 52's engine was to draw around 200 PS from 4.4 liters of displacement at 3,650 rpm. Its maximum torque of 4,450 kgf-cm (436 Nm) was achieved at a moderate 2,2350 rpm. Compared to the Grand Prix legend, this was a reduction in output, but the excellent performance of around 200 km/h, as calculated by the engineers, shows that the Schnellsportwagen would have lived up to its name. In its day, it would have been one of the most powerful street-legal vehicles on the road and in sports car competitions - a true "Schnellsportwagen".

Building the car: Historical documents as the starting point

Audi commissioned Crosthwaite & Gardner to build the Auto Union Type 52 using surviving archive documents, plans, and design sketches. The British restoration experts also curated the Silver Arrows for Audi's historic vehicle collection and, after multi-year work, finished building the Schnellsportwagen in 2023. All components are custom-made and were handcrafted specifically for the model. At over five meters long, the Auto Union Type 52 makes an impact: Its elongated silhouette reflects how its engineers designed the car for optimal aerodynamics and maximum performance. Unlike its Grand Prix siblings, the car is more suitable for everyday driving, as the designers intended, with an overhead roof, headlights, and room for luggage. There is also space for the two spare tires. But that is where the three-passenger car's comfort features end. As is typical for a race car, the Auto Union Type 52 driver sits in the middle, with the rear passenger seats slightly offset to the side. With three passengers, 70 kilograms of luggage, and 150 kilograms of equipment, the technical data sheet lists the car's total weight at 1,750 kilograms, with an unladen weight of 1,300 kilograms.

While the engine, transmission, and open 5-speed gearbox were taken from the Grand Prix car, the engineers chose different technical solutions for the suspension and damping. Instead of a combination of transverse leaf springs and friction dampers like the Auto Union Type 22, the Type 52 uses longitudinal torsion spring suspension in combination with hydraulic dampers.





During development, the 29-gallon fuel tank was relocated under the seats. In the Grand Prix race car, the significantly larger tank is located directly behind the driver in the vehicle's center of gravity, giving the Silver Arrows an ideal weight distribution whether the tank is full or empty. Both the Auto Union Type 52 and the Type 22 use drum brakes on all four wire wheels.

Comments on the Auto Union Type 52: Stefan Trauf and Hans-Joachim Stuck

Audi Tradition will present the Schnellsportwagen to the public for the first time at Goodwood in 2024. Stefan Trauf, Head of Audi Tradition: "We are thrilled to present the Auto Union Type 52 at the Goodwood Festival of Speed. This car gets people excited about design and technology. For me, it is an absolute dream car. In its day, unfortunately, it remained only a dream – one that we are now, 90 years later, able to bring to life. The Auto Union Type 52 demonstrates the ingenuity of its creators and the technological innovation of the time. Being able to experience the Schnellsportwagen live is a great pleasure for me."

The Auto Union Type 52 will be driven at Goodwood by Le Mans record winner Tom Kristensen and racing legend Hans-Joachim "Strietzel" Stuck. The latter's father, Hans Stuck, went down in history as the "Hill Climb Champion" for his many victories in Auto Union Grand Prix race cars in the hill climbs popular in the 1930s. Hans-Joachim Stuck, speaking after his first test drive in the Auto Union Type 52: "When I occasionally drive the Auto Union Type C, which my father drove in his day, at Audi Tradition events, the excitement and fascination of the motorsport fans is palpable. It is a great honor and pleasure to drive the Auto Union Type 52 at Goodwood for the first time. The Schnellsportwagen is simply breathtaking: Its sound is incredibly sonorous – like it came from an orchestra. And the design of the Auto Union Type 52 will practically blow you away – it's genius!"

Last but not least, a look at the challenges in building this one-of-a-kind model

The Auto Union Type 52 was not handed down in a finished state, so there are no pictures of a finished model. During Auto Union AG's dissolution in the Russian occupation zone following World War II, most of the historic Grand Prix race cars disappeared, as did many files and photographs. Similarly, there are no verified reports from contemporaries that would allow conclusions to be drawn about the planned Schnellsportwagen's final configuration insofar as there ever was one. However, the plans provide a clear vision of the direction of development and the goals the engineers were pursuing.

During the building phase, Audi Tradition and the experts at Crosthwaite & Gardiner were in constant and intensive communication, during which Timo Witt, Head of Audi's historical vehicle collection, had to resolve a range of technicalities. Decisions for or against individual technical solutions had to be made. Witt today, after finishing the car project: "One insight that came out of our intensive exchange is that the developers in the 1930s would probably have had to adjust some of the technical details in the course of testing, too.





Similarly, we had to lengthen the Auto Union Type 52's wheelbase compared to the original design documents because it was technically unavoidable in combination with other components such as the front suspension, engine, steering, and transmission. The interior is inspired by the Auto Union Grand Prix race cars, with a modern interpretation of colors and fabrics."

None of the documents specified the color the car would have had at the time. So, Audi Tradition again took the race car as the foundation and chose Cellulose Silver for the finish. When it came to the engine that would power the Auto Union Type 52, Audi consciously decided to deviate from the designers' original plan. Audi Tradition used the 16-cylinder engine from the Auto Union Type C; its output was not restricted to the Type 52 to ensure compatibility with the Grand Prix race cars. For that reason, the engine runs on a special methanol mixture. Based on the information handed down, which Audi Tradition has interpreted and implemented with considerable care, the Auto Union Type 52, which will be presented for the first time at Goodwood, is the closest approximation to the Schnellsportwagen Auto Union Type 52 that was imagined some 90 years ago but never built – until now!

Notice for media:

Pictures from the unveiling of the Auto Union Typ 52 are available at Audi MediaCenter from Thursday afternoon, July 11. Current images of Audi Tradition at Goodwood Festival of Speed (Hillclimb) will be uploaded during the course of the weekend.





Technical data Auto Union Type 52

| | Auto Union Type 52 Model year 2023 | Auto Union Type 52 As planned in 1934 |
|-----------------------|--------------------------------------------------------|-------------------------------------------------------------------|
| Engine | 16-cylinder mid-mounted engine with supercharger | 16-cylinder mid-mounted engine with supercharger |
| Displacement | 6,005 cc (similar to the 1936 Auto Union Type C) | 4,358 cc (equal displacement as the 1934 Auto Union Type A) |
| Output | 520 PS (382 kW) at 4,500 rpm | 200 PS (147 kW) at 3,650 rpm |
| Top speed | n/a | Designed for 200 km/h |
| Fuel | 50% methanol, 40% super unleaded, 10% toluene | Regular gasoline |
| Dimensions (L/ W / H) | 5,390 / 1,780 / 1,660 mm | - |
| Wheelbase | 3,315 mm | 3,000 mm |
| Unladen weight | 1,450 kg | 1,300 kg |
| Exterior color | Cellulose Silver | _ |
| Model year | 2023 | _ |
| Total number of units | One-of-a-kind model | _ |

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The Audi logo consisting of four rings symbolizes the Audi, DKW, Horch, and Wanderer brands, which were merged into Auto Union in 1932. Auto Union and NSU merged in 1969 and played a major role in shaping the development of the automobile. Finally, in 1985, Audi NSU Auto Union AG became AUDI AG. Since 1998, Audi Tradition/Auto Union GmbH, together with NSU GmbH, has been maintaining and presenting Audi's extensive and wide-ranging history. The Audi museum mobile at the Audi Forum Ingolstadt is open Monday to Friday between 9:00 a.m. and 5:00 p.m. and from 10:00 a.m. to 4:00 p.m. on Saturdays, Sundays, and public holidays. The August Horch Museum Zwickau is open Tuesday through Sunday from 9:30 a.m. to 5:00 p.m. AUDI AG and the city of Zwickau each hold a 50 percent stake in August Horch Museum Zwickau gGmbH. www.audi.com/en/tradition

Audi Tradition supports the work of Audi Club International e. V. (ACI). The umbrella organization officially recognized by AUDI AG represents all of the Audi brand clubs as well as the clubs of the predecessor brands of today's AUDI AG. For more information, please visit <u>www.audi-club-international.de</u>

The Audi Group is one of the most successful manufacturers of automobiles and motorcycles in the premium and luxury segments. The Audi, Bentley, Lamborghini, and Ducati brands operate manufacturing facilities at 21 locations in 12 countries. Audi and its partners maintain a presence in more than 100 markets worldwide.

In 2023, the Audi Group delivered 1.9 million cars from the Audi brand, 13.560 cars from the Bentley brand, 10,112 cars from the Lamborghini brand, and 58,224 motorcycles from the Ducati brand to customers. In fiscal 2022, the Audi Group generated earnings of 6.3 billion euros on revenues of 69,9 billion euros. The Audi Group currently has more than 87,000 employees worldwide, some 53,000 of whom work at AUDI AG in Germany. With its attractive brands and new models, innovative mobility offerings and pioneering services, the company is systematically continuing on its path to becoming a provider of sustainable, individual premium mobility.