



By appointment
to HM The Queen
motor car manufacturers
Bentley Motors Limited
Crewe Cheshire



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BENTLEY

Press Information

THE FIRST NEW BENTLEY BLOWER FOR 90 YEARS

- **Bentley Mulliner completes the first prototype for the Blower Continuation Series**
- **'Car Zero' makes debut as first new Blower since 1930**
- **First example of world's first pre-war continuation series**
- **Nearly 2,000 individually designed and hand-crafted parts**
- **40,000 hours invested in the design and build of Car Zero**
- **Crafted entirely by hand from original drawings and tooling, using a team of in-house technicians and external British suppliers**
- **Data provided by laser-scanned, 3D CAD model of Bentley's own 1929 4½-litre supercharged Team Car raced by Sir Henry 'Tim' Birkin**
- **Car Zero to now begin an extensive test and durability programme – including a run to top speed**
- **12 customer cars to follow – all pre-sold and specified**

(Crewe, 9 December 2020) After 40,000 hours of work, Bentley Mulliner has today completed the first new Bentley Blower in 90 years, with the delivery of Car Zero – the prototype car for the Blower Continuation Series.

This highly exclusive run of 12 customer cars – all pre-sold - will be crafted from the design drawings and tooling jigs used for the original four Blowers built and raced by Sir Henry 'Tim' Birkin in the late 1920s. Specifically, Bentley's own Team Car (Chassis HB 3403, engine SM 3902, registration UU 5872 - Team Car #2) has provided the master model for the Continuation Series, with every single component laser-scanned as part of a wheels-up, sympathetic restoration.

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From this data, 1,846 individual parts have been designed and hand-crafted to create the new Blower. 230 of those parts are actually assemblies – one of which being the engine – taking the total part count to several thousand when fixings and interior trim parts are included. Each of these parts and assemblies have been created by a project team of Bentley Mulliner engineers, craftspeople and technicians working together with a number of British specialists and suppliers.

Blower Car Zero is a dedicated test and development prototype, built in advance of the 12 customer cars, and will be subjected to months of durability and performance testing. Finished in gloss black, with an interior in Oxblood red leather from Bridge of Weir, Car Zero made its debut today to officially mark the creation of the new Bentley Motors campus in Crewe. Made possible by the closing of Pyms Lane – Bentley's address since 1946 – the campus extends Bentley's headquarters to a new expanded footprint.

Chairman and Chief Executive of Bentley Motors, Adrian Hallmark, had the honour of driving Car Zero down Pyms Lane to mark the occasion, and comments:

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"Today was a truly remarkable day, not just as a milestone in the Blower Continuation Series project but also for Bentley Motors. To drive the first new Blower in 90 years was a privilege, and the quality of the car would make Sir Tim Birkin himself proud. The craftsmanship is exquisite, and I'm pleased to report that the car drives just as beautifully as our original Team Car.

"It was also significant that I could drive the new Blower down Pyms Lane, now part of our main site as we expand to create the new Bentley campus.



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Investing in our headquarters is vital both for Bentley's future and for Crewe, and our new developments and buildings are a physical manifestation of the exciting future before us as we start our journey to become the world leader in sustainable luxury mobility."

The Blower Continuation Series is the first customer-facing project delivered by the new Bentley Mulliner Classic portfolio, one of three new divisions of Mulliner alongside Coachbuilt (currently developing the equally-exclusive Bacalar) and Collections (responsible for the Continental GT Mulliner).

Blower Car Zero – A Project of Draftsmen and Craftsmen

The first step in creating Car Zero was an extensive analysis of the original design drawings and drafts that were referenced in the creation of the original Blower Team Cars, together with archived period photographs of the cars. Following a piece-by-piece disassembly of the #2 Team Car owned by Bentley (likely the most valuable Bentley in the world) and an exceptionally precise laser scanning of the frame and its components, a complete digital CAD model of the Blower was created.

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From there, a team of artisan specialists were recruited to start manufacturing the components that Bentley Mulliner would bring together to form the first Blower.

Bentley's Director of Mulliner, Paul Williams, comments:

"Seeing Car Zero come together over the last weeks and months has been astonishing. The very latest digital design techniques came together with genuine artisanal hand-crafted artistry – often using manufacturing methods



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true to the 1920s. It's only through this fusion of old and new that we could craft these cars, with the skills of our engineers mirrored in those of our specialist suppliers. We've issued thousands of drawings and specifications for components, and watching them arrive into Mulliner and then seeing the car take shape has been hugely rewarding. Now we start the next phase – testing and development, ahead of the build of the 12 customer cars.”

From the outset, Bentley Mulliner sought to engage the very best specialists across the country to create componentry for the Blower Continuation Series in a manner befitting such a project – using traditional techniques passed down through generations.

The chassis has been created in heavy-gauge steel, hand-formed and hot riveted by the specialists at Israel Newton & Sons Ltd. This 200-year old company, based near Derby, traditionally makes boilers for steam locomotives and traction engines, and as such has the skills to forge and shape metal in a traditional way.

The Vintage Car Radiator Company, based at Bicester Heritage, has crafted exact recreations of some of the Blower's key components – including the mirror-polished, solid nickel silver radiator shell and the hand-beaten fuel tank formed in steel and copper. Market leaders in the manufacture and restoration of vintage car radiators and components to the highest possible standards of craftsmanship and authenticity, they were the perfect choice to handcraft these tricky and vital components.

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Leaf springs and shackles have been made to original specifications by Jones Springs Ltd, a specialist in the West Midlands with nearly 75 years of experience and a history that started in a blacksmith's forge.

The Blower's iconic headlamps have been reborn by Vintage Headlamp Restoration International Ltd in Sheffield. This father and son team is world-renowned for their silversmithing and ability to create vintage-design headlamps from original specifications.

Meanwhile, in the bespoke Mulliner Trim Shop in Crewe, a new ash frame created by Lomax Coachbuilders (based in Ludlow) underwent final stages of carpentry with Mulliner's team of experts, including the application of 25 meters of highly specialised Rexine material used to wrap the body. Hand-trimming of the body was then completed by Mulliner's master craftsmen. For Car Zero, the gloss black bodywork is paired with Oxblood red Bridge of Weir leather and matching trim. As per the originals, the seats are stuffed with a total of 10 kilograms of natural horsehair.

Breathing New Life into an Iconic Engine

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Car Zero's brand new 4½-litre engine, originally designed by W.O Bentley himself, has been created with the expert support of specialists including NDR Ltd in Watford. Featuring many innovations of which a sports car engine of the 1970s would be proud – aluminium pistons, an overhead camshaft, four valves per cylinder and twin spark ignition – the renowned 4½-litre engine has been paired with a newly machined Amherst Villiers roots-type supercharger. The newly created Blower engine is an exact recreation of the engines that



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powered Tim Birkin's four Team Blowers that raced in the late 1920s – including the use of magnesium for the crankcase.

While the first engine was being assembled, work was also underway to convert an engine testbed at Bentley's Crewe headquarters to accept the nearly 100-year old engine design. The engine test facility has been at Bentley since the factory was built in 1938, and the cells were originally used to run-in and power-test Merlin V12 aero engines produced by the factory for the Spitfire and Hurricane fighters of the Second World War.

Preparing the test bed involved making a replica Blower front chassis to hold the engine, which could then be mounted to the computer-controlled engine dynamometer. A new software version to measure and control the engine was written and tested, allowing Bentley's engineers to monitor and run the engine to precise parameters. As the Blower powertrain is considerably different in size and shape to Bentley's modern production engines, a number of the original Merlin testbed fixtures – still in storage at Bentley - have been utilised to adapt the testbed to accommodate these special engines.

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With the engine fully installed, the engine was put through a defined schedule of run-in ahead of fitment to the car.

The Next Step

With the build of Car Zero now complete, a programme of real-world durability testing will begin. Sessions of gradually increasing duration and speed will check functionality and robustness under ever harder conditions. The test programme is designed to achieve the equivalent of 35,000 kilometres of real-world driving across 8,000 kilometres of track driving, and simulates the



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undertaking of famous rallies such as Peking to Paris and Mille Miglia. The testing will also see a particularly brave driver taking the car to its top speed – with Adrian Hallmark first in the queue...

- ENDS -

Notes to editors

Bentley Motors is the most sought after luxury car brand in the world. The company's headquarters in Crewe is home to all of its operations including design, R&D, engineering and production of the company's three model lines, Continental, Flying Spur and Bentayga. The combination of fine craftsmanship, using skills that have been handed down through generations, alongside engineering expertise and cutting-edge technology is unique to UK luxury car brands such as Bentley. It is also an example of high-value British manufacturing at its best. Bentley employs around 4,000 people at Crewe.

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