ROLLS-ROYCE | MEDIA INFORMATION

THE EXTRAORDINARY UNDERTAKING CONTINUES: SPECTRE APPROACHES TWO MILLION KILOMETRE MARK IN LATEST PHASE OF RIGOROUS GLOBAL TESTING

8 February 2023, Goodwood, West Sussex **(Embargo: 00.01 GMT)**

* Rolls-Royce continues 2.5 million kilometre testing programme of all-electric Spectre
* Almost 2 million kilometres of testing now completed across the world
* Extreme hot weather testing currently being undertaken in South Africa at 50°C
* ‘Marginal gains’ theory employed to make substantial overall improvements
* Spectre will be cycled through ‘final four seasons’ of conditions to ratify results
* Final ‘Lifestyle Analysis’ process will conclude Spectre testing

*“Spectre has already secured its place as the most anticipated Rolls-Royce in history. This remarkable and transformative motor car represents the beginning of the marque’s bold electric era as well as our unquestionable technological leadership of the super-luxury space. Equally, this vast, ambitious and demanding testing process symbolises our promise to ensure Spectre is undoubtedly a Rolls-Royce first. A profound aspect of our approach to this precious brand is to inspire greatness in everything we do and with Spectre, we are elevating the automotive experience to unparalleled heights, creating a new benchmark of distinction. It is the fulfilment of this promise that underpins the marque’s ongoing success and drives our constant focus to meet, and exceed, the expectations of our discerning clients.”***Torsten Müller-Ötvös, Chief Executive Officer, Rolls-Royce Motor Cars**

*“The reason for our extraordinary and restless global testing process is simple: there has never been a motor car like Spectre before. As the first all-electric Rolls-Royce, Spectre represents not just a new paradigm in our technology, but the entire future direction of our brand. Only Rolls-Royce engineers could conceive this astonishing journey, and only Rolls-Royce engineers could undertake it: the task is not to test a motor car but to elevate the benchmark of automotive excellence.”***Dr. Mihiar Ayoubi, Director of Engineering, Rolls-Royce Motor Cars**

**ROLLS-ROYCE SPECTRE: HOT WEATHER TESTING**

Spectre, Rolls-Royce’s genre-defining all-electric super coupé, has now covered almost two million kilometres as it completes the third phase of the most rigorous testing programme ever devised in the marque’s 118-year history. This has already surpassed every Rolls-Royce testing programme before it – and it is still far from over.

Spectre is currently undergoing extreme hot weather tests in two locations in South Africa: Augrabies in the Northern Cape; and Franschhoek, the ‘French Corner’ in the Western Cape winelands. The stable yet contrasting climates provide some of the finest summer-weather driving in the world, with dry and extremely hot conditions in the north and more humid, Mediterranean-style, conditions in the south. At its hottest, temperatures can exceed 50°C, while the southern region hosts a great variety of surfaces and terrains, including twisting country roads replete with gravel, dust and dirt. Truly testing conditions, by any measure.

During this stage, engineers are observing and refining every system, hardware item and software protocol that has been developed over the course of almost two million kilometres of continuous testing. Only through such painstaking assessments can Rolls-Royce’s technical experts achieve the exacting levels of ride refinement that are so central to the experience beloved by clients, and successfully translate the marque’s defining ‘Magic Carpet Ride’ to the new all-electric paradigm.

Throughout Spectre’s testing, each of the motor car’s 25,000 separate performance-related functions have been meticulously tailored to deliver a quintessentially Rolls-Royce experience. The refinements being made now follow the principles of ‘marginal gains’, in which individual, very small and incremental adjustments cumulatively produce a significant overall improvement. Though widely used and proven in elite sport and high-level business, this theory is being used during Spectre testing to an unprecedented extent, as part of the wider validation process characterised internally as the Rolls-Royce Finishing School.

Examples of the meticulous attention-to-detail that Spectre prototypes are being subjected to are manifold but often impossible to quantify, as they represent the judgement and instinct of the marque’s peerless and long-standing engineering elite. For example, over 1500 hours have already been dedicated to finessing the car’s regenerative braking to ensure it feels effortless but present. Data-logging equipment processes sensor inputs generated by this braking force, to ensure that adjustments do not compromise the overall serenity of Spectre under any driving conditions. However, it is only the experience and judgement of long-standing Rolls-Royce engineers that can ensure the motor car will, when testing is completed, meet the inimitable standards required to deliver an elevated expression of the Rolls-Royce experience.

Similarly, anti-roll stabilisation is being tuned to reflect the dynamic promise of Spectre’s dramatic super-coupé design while still delivering on the marque’s hallmark ‘Magic Carpet Ride’ qualities. In South Africa, this testing has specific significance as high temperatures can alter the hardness of rubber suspension components, providing a parameter that is bookended by the results of extreme cold weather testing.

This exhaustive approach has also been applied to ensuring the correct colour-quality and brightness for the theatre of light that is prompted by opening Spectre’s coach door. To ensure a sense of harmony in the cabin, whatever the external light conditions, all internal illuminations, including the marque’s celebrated Bespoke Starlight Headliner, instrument cluster and SPIRIT interface, must be perfectly coordinated. This requires detailed analysis of a global range of sunlight exposure and types, to ensure consistency of colour-quality wherever in the world Spectre is.

As the car approaches the later phases of its exhaustive testing programme, further adjustments will be made to sealing materials to deliver Rolls-Royce’s famed aero-acoustic performance. This process is essential because rubber sealing materials perform differently through the spectrum of temperatures. For example, during Spectre’s testing phase at Arjeplog in Sweden, seals hardened in sub-zero temperatures. Conversely, in South Africa, Rolls-Royce engineers will be assessing the acoustic performance of seals softened in hotter conditions. Their work is therefore to find optimum balance to ensure the cabin is insulated in all extremes of climate.

In South Africa and throughout the remaining programme, the audio system will also be tuned and finessed to achieve fractional gains in the quality of the sound offered through Spectre’s 17 speakers. Following initial testing and calibration in a laboratory setting, the system is now being tested exhaustively in real-world conditions. A specially curated playlist presenting a wide range of genres to represent a full spectrum of sonic requirements is used.

This commitment to ensuring perfect acoustic performance extends to the key functions of the motor car. Indeed, even the speed at which the self-closing coach doors shut is being scrutinised to ensure that the perfect level of positive noise is generated upon closure.

**ROLLS-ROYCE SPECTRE: THE EXTRAORDINARY UNDERTAKING NEARS COMPLETION**

When the experience and data collected from South Africa has been fully analysed, and relevant actions and measures have been implemented, Spectre’s testing programme will be around 80% complete as it sets off on the final ratification phase. This consists of taking the motor car through a condensed programme of ‘all-season’ testing, including return visits to the Arctic extremes of Arjeplog and the more temperate conditions of the Côte d'Azur.

The final 500,000 kilometres of Spectre testing will focus on Lifestyle Analysis. This proprietary testing process will see Spectre tested in super-luxury situations and use-cases specific to Rolls-Royce clients, to ensure Spectre performs as required in the centre of global megacities, around new and historical luxury destinations, and in other settings commensurate with owners’ needs, habits and lifestyles.

**ROLLS-ROYCE SPECTRE: TESTING BACKGROUND**

Ahead of the first cars being delivered to clients, scheduled for the fourth quarter of 2023, Spectre has undergone exhaustive trials designed to replicate almost 400 years of normal use, in some of the most extreme conditions on Earth. In total, the car will cover more than 2.5 million kilometres – the equivalent of circumnavigating the globe 62 times.

Testing began in the winter of 2021 at a special testing facility in Arjeplog, Sweden, just 55 kilometres from the Arctic Circle. In temperatures of -40°C, Rolls-Royce engineers examined and refined every aspect of Spectre’s performance and handling in snow and ice, and any effects of prolonged extreme cold on the motor car’s batteries and other electronic systems.

With this examination successfully completed, Spectre then spent the summer of 2022 in the sunnier, but no less exacting climes of the French Riviera and around the Côte d’Azur. This included testing at the historic Autodrome de Miramas proving ground, a former Grand Prix circuit that now provides over 60 kilometres of closed routes and 20 state-of-the-art test track environments. The majority of the testing, however, was conducted in the Provençal countryside, assessing Spectre’s capabilities under real-world conditions in an area where many production cars are likely to spend their lives.

-ENDS-

SPECTRE CO2 EMISSIONS AND CONSUMPTION FIGURES

WLTP: Power consumption: 2.9 mi/kWh. / 21.5 kWh/100km\*

Electric range: 323 miles / 520 kilometres\*

 Co2 emissions 0 g/km.

\*Preliminary data not yet confirmed, subject to change.

1. Official data on fuel consumption, CO2 emissions, power consumption and electric range were determined in accordance with the mandatory measurement procedure and comply with Regulation (EU) 715/2007 valid at the time of type approval.
2. WLTP information takes into account any special equipment in ranges. For vehicles that have been type-tested since January 1st, 2021, the official information no longer exists according to the NEDC, but only according to the WLTP. For more information on the WLTP and NEDC measurement procedures, see [**WLTP: new times, new rules**.](https://www.rolls-roycemotorcars.com/en_GB/information/fb-dat-wltp.html)
3. Range and power consumption figures shown for comparability purposes. These figures may not reflect real life driving results, which will depend upon a number of factors including the starting charge of the battery, accessories fitted (post-registration), variations in weather, driving styles and vehicle load.

Further information on official energy and fuel consumption and the official specific CO2 emissions of new passenger cars can be found in the “Guide to Fuel Consumption, CO2 Emissions and Electricity Consumption of New Passenger Cars”, which is available at all sales outlets free of charge and at http://carfueldata.direct.gov.uk/ in the United Kingdom, http://www.dat.de/angebote/verlagsprodukte/leitfaden-kraftstoffverbrauch.html in Germany and/or your local government authority.

## EDITORS’ NOTES

Rolls-Royce Motor Cars is a wholly-owned subsidiary of the BMW Group and is a completely separate company from Rolls-Royce plc, the manufacturer of aircraft engines and propulsion systems. 2,500 skilled men and women are employed at the Rolls-Royce Motor Cars’ head office and manufacturing plant at Goodwood, West Sussex, the only place in the world where the company’s super-luxury motor cars are hand-built.

## FURTHER INFORMATION

You can find all our press releases and press kits, as well as a wide selection of high resolution, downloadable photographs and video footage at our media website, [**PressClub**](https://www.press.rolls-roycemotorcars.com/rolls-royce-motor-cars-pressclub).

You can also follow marque on social media: [**LinkedIn**](https://www.linkedin.com/company/rolls-royce-motor-cars/); [YouTube](https://www.youtube.com/user/RollsRoyceMotorCars);[**Twitter**](https://twitter.com/rollsroycecars); [Instagram](https://www.instagram.com/rollsroycecars/); and [Facebook](https://www.facebook.com/rollsroycemotorcars).

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