

# ROLLS-ROYCE PEARL FAMILY CONTINUES TO GROW

News / Business aviation, Manufacturer



**Rolls-Royce has officially unveiled the Pearl 10X, the third and most powerful member of its market-leading Pearl engine family for the business aviation market. The engine has been optimised to exclusively power Dassault's brand-new flagship aircraft, the Falcon 10X, which was revealed during a digital ceremony at Le Bourget airport in Paris. With more than 3,600 business jets powered by Rolls-Royce engines in service, we are the world's leading engine supplier in this market. Our Pearl 10X is the newest member of the state-of-the-art Pearl engine family and the first Rolls-Royce engine ever to power a business jet of the famous French airframer. Dassault's selection of the Pearl 10X for its new top of range product is another testament to our position as the engine manufacturer of choice in business aviation.**

**The Pearl 10X features the Advance2 engine core, the most efficient core available across the business aviation sector, and combines it with a high-performance low-pressure system, resulting in a superior thrust of more than 18,000lb. Compared to Rolls-Royce's last generation of business aviation engines the Pearl 10X offers a 5% higher efficiency, while delivering outstanding low noise and emissions performance. The result is an engine that offers a market-leading combination of power and efficiency. This combination will enable customers and operators to have premium airport accessibility and fly ultra-long-range connections whilst also being able to travel nearly as fast as the speed of sound.**

It brings together innovative technologies derived from the Rolls-Royce Advance2 demonstrator programme and proven Pearl family features to deliver world-class environmental performance. This includes a highly-efficient blisked fan; a high pressure compressor with a market-leading pressure ratio and six blisked stages; an ultra-low emissions combustor; a two-stage shroudless high pressure turbine as well as an enhanced four-stage low pressure turbine that is one of the most efficient and compact in the industry. This suite of technologies is all housed together within a brand new, ultra-slimline nacelle from Spirit AeroSystems.

The engine is being developed at the Rolls-Royce Centre of Excellence for Business Aviation Engines in Dahlewitz, Germany, and is currently undergoing a comprehensive test programme, which includes the capability to operate on 100% Sustainable Aviation Fuels.

One of the new key features of the Pearl 10X will be 3D-printed combustor tiles, manufactured by an advanced Additive Layer Manufacturing process. This pioneering technology, which supports the exceptional environmental performance of the engine, has been developed and extensively tested as part of our Advance2 programme.

Chris Cholerton, President Civil Aerospace, Rolls-Royce, said: "This is a very special day for Rolls-Royce and the dedicated Pearl team, who have been passionately working behind the scenes to make this programme a reality. We are extremely proud that Dassault has chosen us to power their flagship Falcon 10X, and I would like to congratulate the Dassault family as well as the Falcon team on this special occasion. Today marks the start of a successful partnership and, with our pioneering Pearl 10X engine and leading customer service, I look forward to supporting Dassault as they continue to impress their customers in the ultra-long-range corporate jet market."

Eric Trappier, Chairman and CEO, Dassault Aviation, said: "The Pearl 10X is perfectly matched to our performance requirements for our new, ultra-long-range jet and proved itself to be the best solution also for reliability and efficiency. New technologies within its core and its digital controls make it the benchmark for powerplant technology in this business aviation segment.

Moreover, Rolls-Royce's track record for product support ensures an outstanding customer service experience."

Dr Dirk Geisinger, Director Business Aviation and Chairman Rolls-Royce Deutschland, added: Excellent customer support is a key focus for Dassault and Rolls-Royce – both of us have been ranked number one in our own categories for consecutive years in AIN's Product Support Surveys. As the leading engine manufacturer in Business Aviation, our customers can trust in us to deliver outstanding levels of in-service support.

Designed for outstanding reliability, the Pearl family is supported by Rolls-Royce CorporateCare® Enhanced, the most comprehensive service programme in business aviation. CorporateCare Enhanced offers substantial financial and operational benefits to customers, increasing asset

value and liquidity, mitigating maintenance cost risk and protecting against the unforeseen costs of unscheduled events anywhere in the world. Increased aircraft availability, reduced management burden, full risk transfer, direct priority access to the Rolls-Royce services infrastructure and remote site assistance are further customer benefits.

The Pearl engine family is part of the Rolls-Royce IntelligentEngine vision of a future where product and service become indistinguishable thanks to advancements in digital capability. As well as a new-generation Engine Health Monitoring System that introduces advanced vibration detection, the family benefits from the incorporation of advanced remote engine diagnostics. It is also enabled for bi-directional communications, allowing for easy remote reconfiguration of engine-monitoring features from the ground. Cloud-based analytics, smart algorithms and Artificial Intelligence continue to play an increasing role in delivering exceptional levels of availability and greater peace of mind for our customers.



10 MAY 2021

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