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ROLLS-ROYCE TRENT 900 ENGINE FOR THE AIRBUS A380

Four Rolls-Royce Trent 900 engines power the Airbus A380 aircraft, MSN002, involved in the function and reliability testing, or route-proving, exercise. This is the last of the aircraft trials required for Type Certification, which Airbus expects to receive in mid-December.

The aircraft has to carry out 150 flight hours on a continuous airline schedule, performing in its normal operational environment.

The Rolls-Royce Trent 900 is the launch engine for the Airbus A380 and the first engine ran to schedule in March 2003. The engine was certificated to schedule in October 2004 and the first flight of the A380, powered by the Trent 900, took place in April 2005. It will enter service at between 70,000lb to 76,500lb thrust but has been certificated up to 80,000lb

Trent 900 engines now have accumulated over 7,500 flying hours on the A380 and completed almost 30,000 cycles in ground running and on the aircraft. Four of the five A380s in the development programme are powered by Rolls-Royce. Throughout the test programme, the Trent 900 has proved to be an extremely reliable engine, once again demonstrating the benefits of the low-risk approach Rolls-Royce applies to engine design.

During flight tests, the engine has been put through its paces in the most testing conditions, including cold weather and hot and high performance, and taking the aircraft beyond the altitudes and speeds it will ever see in service, down to the minimum speeds needed to keep the A380 airborne. The results have been excellent and confirmed performance predictions, leaving the Trent 900 on track to achieve all its key targets.

The Trent 900 is the lightest and most environmentally-friendly engine on the A380. It is the world's cleanest high-thrust engine, and the quietest powerplant on the A380 and, at nearly ten feet in diameter, it the largest engine Rolls-Royce has ever built.

Aircraft noise certification has indicated the engine will easily meet the stringent QC1 and QC2 limits in use at airports including London Heathrow – one of the A380's early destinations for launch customer, Singapore Airlines (SIA), due to receive its first aircraft in 2007.

Seven out of the eleven airline customers who have made engine selections to date on the A380, Singapore Airlines, Virgin Atlantic Airways, Qantas, Lufthansa, Malaysia Airlines, Etihad Airways and China Southern, have selected the Trent 900, giving it a 51 per cent market share on firm and option aircraft.

The Trent 900 is the fourth member of the seven-strong Trent family of engines has produced since the original Trent 700 first flew on the A330 in 1995.

Rolls-Royce has developed the Trent 900 with partners around the world. Seven companies are participating as risk and revenue-sharing partners: Industria de Turbo Propulsores (ITP) of Spain, Hamilton Sundstrand, Goodrich and Honeywell of the United States, Avio of Japan, Volvo Aero of Sweden, and Marubeni of Japan. In addition, Samsung Techwin of South Korea, and Kawasaki Heavy Industries (KHI) and Ishikawajima-Harima Heavy Industries (IHI) of Japan are programme associates

Trent 900 'Wow Facts'

At take-off, the A380's four Trents are delivering thrust equivalent to the power of more than 3,500 family cars!

The fan sucks in over 1.25 tons of air every second, and by the time the air leaves the nozzle at the back of the engine, it has been accelerated to a speed of nearly 1,000 miles per hour, or 1,600 kilometres per hour.

Trent engines achieve around 13,000 flying hours between major overhauls – this is the equivalent of 7 million miles... or flying around the world 250 times.

Fuel burns in the Trent's combustion chamber at temperatures up to 2,000 degrees centigrade – well above the 1300 degrees centigrade at which some component metals would start to melt, so the engine uses a sophisticated cooling system.

For images and video of the Trent 900 please go the Rolls-Royce Media Room at: <http://www.rolls-royce.com/media/gallery> and visit: www.thenewsmarket.com/rolls-royce for b-roll video. Registration and access to the media is free. You can download a MPEG2 file or order a Beta SP tape.

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