

Thomson Airways Boeing 787 Dreamliner

TUI Travel PLC has ordered 13 787 Dreamliners with purchasing rights for a further 13 aircraft. Thomson Airways is the UK launch customer for the Dreamliner and expects delivery of the aircraft in early 2012.

Offering a smoother, quieter and greener flying experience, the Boeing 787 Dreamliner represents a new generation of aircraft. It sets the highest standards, offers greater efficiency, increased customer comfort and well-being plus an overall reduction of carbon emissions.

With its systematic use of carbon-fibre components, the Dreamliner's unprecedented environmental performance will make it an incredibly valuable asset in reducing carbon output. It is a lighter aircraft so can fly further than current aircraft models.

Better for you

Relaxation is paramount onboard the Dreamliner- from more spacious storage to a healthier cabin environment, the emphasis is on customer comfort and well-being, ensuring that the journey is enjoyable and becomes part of the holiday.

- **Reduced travel-related fatigue** – Whilst current airliners are pressurized to 8000ft, the air pressure inside the Dreamliner is equivalent to 6000 ft, allowing 8% more oxygen to be absorbed into the blood meaning customers experience fewer headaches and less dizziness and fatigue.
- **Reduced jet lag symptoms** – The Dreamliner is fitted with a unique LED lighting system which recreates the sunrise and sunset of the customer's destination. Customers are gradually eased into the time zone change which reduces travel fatigue. Higher humidity levels in the cabin, through the use of advanced materials, reduce symptoms of dryness and dehydration which can cause jet leg.
- **Good for nervous fliers/air sick customers** – The Dreamliner's unique system senses air pressure differences and turbulence in advance and then adjusts itself to minimise and iron out any unwelcome side effects. This results in a reduction in motion sickness of up to eight times and a much smoother ride all round.

- **Breathe cleaner air** – The cleanest atmosphere/air of any commercial aircraft due to the advanced filtration system, known as gaseous filtration, which makes the air cleaner by removing contaminants including offensive odours.



- **Enjoy a quiet ride** – Due to quieter engines and state-of-the-art aerodynamics.
- **Large windows and controllable light** – The windows on the Dreamliner are three times bigger than the average aircraft windows (27x47cm) which will effectively allow every customer a view of the horizon. Electric dimmers on all windows mean customers can determine the degree of light they let in.
- **More personal space** – Wider aisles and seats than any other aircraft (38 cms/15 inches wider than competitors) means customers can move around more freely. The tall, dramatically lit entryway creates a sense of the sky overhead and is continued throughout the cabin, with arches incorporated into the architecture at various locations, dividing the plane into well proportioned, room-like cabins.
- **Luxury WCs** - Offering more space for wheelchair access and baby changing. The overhead bins will be the largest in the industry, allowing all customers to place their bags in the bin above.





Customer benefits

Direct long haul travel - Flying up to 8,500 nautical miles (*10,000 miles*) as fast as comparable current jets, opening up new long haul destinations to Thomson Airways customers. Direct flights also reduce customer through traffic at busy hub airports.

Better for the environment

- **More fuel efficient** - Uses 20% less fuel than today's mid-sized commercial aircraft, in part down to 66% of the aircraft comprising composite material, which is considerably lighter than traditional materials. Other factors influencing the improved overall performance include new engines, more-efficient systems applications and modern aerodynamics.
- **Reduced emissions** – Carbon dioxide (CO₂) is produced as a result of fuel consumption. This means that with reduced fuel use there is an equivalent reduction in carbon dioxide emissions.
- **Noise** – New engine technology means the aircraft will generate up to 60% less of a noise footprint during take-off and landing than comparable, current aircraft. The aircraft is not only less noisy in the air, its even quieter on the ground, with its engine sounds of 85dB destined to never leave the airports perimeters.
- **Point to point travel** – The Dreamliner can fly to smaller destinations efficiently (current generation wide bodies can do this but it is not economic to operate them on these routes). Fewer take offs and landings will therefore reduce fuel use and pollution.
- **Manufacturing waste** – Composite airframe means less waste such as aluminium scrap.
- **Quieter Takeoffs and Landings** - the noise footprint of the 787 is more than 60% smaller than similar sized airplanes, an important measure of environmental performance. All sound of above 85 decibels (about the level of loud traffic heard from the side of the road) never leaves the airport boundaries.

- **Direct travel** – Compared to larger jets the mid-sized Dreamliner is able to operate economically on routes between mid-sized cities, eliminating the need for extra takeoffs and landings, reducing emissions (due to lower fuel consumption) and reducing the total noise footprint.
- **Reduced waste during manufacturing** – Due to the use of carbon fibre composite materials compared to the aluminium used for current aircrafts, which can produce as much as 90% scrap during the manufacturing process.

Technology

- **Head up display** – This provides pilots with instrumentation projected directly in front of their field of vision, enabling them to look at the data and approach at the same time thereby improving safety standards.
- **E connectivity** – The aircraft communicates with engineers and other departments via a wireless network, meaning data can be transferred as the Dreamliner arrives at the gate. This increases safety and cuts maintenance time and costs, with knock on customer benefits.
- **Electronic flight bag** – Computer software providing a vast range of information for pilots on operating the aircraft. Wireless transmission means information can be updated in real time and software will also help pilots to calculate optimum aircraft performance. This replaces heavy on board paper manuals thereby adding to aircraft fuel burn/environmental benefits.
- **Flight deck presentation** (integrated approach navigation) – This technology enables pilots to fly and approach in 3D (currently 2D). Aircraft will guide the pilot on descent, reducing their workload. This system will provide maximum information for pilots to make decisions at critical take off and landing times.

