Boeing 787 electric brake: an advanced technology that meets airline requirements

Over the years Safran Landing Systems has developed a number of “more electric” aircraft systems to meet the operational requirements of airlines and aircraft manufacturers in terms of braking safety, efficiency and comfort, while also reducing costs. The electric brake for the Boeing 787 Dreamliner, showcased on the Safran booth at the 2017 Paris Air Show, is one example of this strategy.

A major advance

In electric braking systems, the conventional hydraulic equipment is replaced by electronic control units and hydraulic pistons replaced by electromechanical actuators. The introduction of electric brakes is an advance on a par with the introduction of carbon brakes some 30 years ago, and paves the way for even “more electric” aircraft.

Operating advantages for airlines

The electric brake technology offered by Safran Landing Systems on the Boeing 787 has a number of advantages. Since electricity largely replaces hydraulics, both brake installation and maintenance are easier. Plus, it’s “plug and play” system: for these electric brakes to operate, you just have to connect a wire between the actuators and the electronic control unit, and connect this unit to the aircraft’s electrical system. Safran Landing Systems’ electric brake also offers certain “smart” functions that facilitate airline operations, such as a real-time assessment of carbon disk wear, with this information sent directly to the flight deck.

An eco-responsible technology

The electric brake designed by Safran Landing Systems is cadmium, beryllium, asbestos and solvent-free throughout the production cycle, including at our suppliers.