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Aircraft Brake Unit Spring Testing

Specification

The Aircraft Wheels and Brakes department at British Airways plc are responsible for the repair and overhaul of the aircraft brake units on the Boeing 737, 747, 757, 777 and Airbus A319, A320 and A321 aircraft. Testing the brake unit springs is an important part of the overhaul process to ensure the pistons extend and retract and that these safety critical components perform correctly. Previously the tests were performed using a manual tester but the team at British Airways required a more sophisticated solution that would be easy to use, but would also reduce the time taken to carry out the test process.

Solution

Mecmesin supplied British Airways with a MultiTest 5-x console-controlled force testing system. The MultiTest 5-x is used to perform a compression test, simulating the performance of the springs with a specific load range. To facilitate quick testing and ease-of-use, the MultiTest 5-x has been programmed with the testing parameters required in the Component Maintenance Manual for each spring. These stored, automated test procedures combined with the one button ease of use of the MultiTest 5-x and automatic display of pass/fail messages have reduced test times by 75%, making significant cost savings and increasing efficiency.

System

- MultiTest 5-x
- 5kN loadcell
- Compression plate - self levelling
- Machine guard

Testimonial

“Use of the MultiTest 5-x has simplified and accelerated the testing of aircraft brake unit springs. Having input the parameters per the CMM into the unit, we are able to test a spring at the touch of a button and have a near instantaneous result without ambiguity. The machine has not only simplified the testing procedure, it has helped to improve the process and flow through the shop.”

Lionel Fearon, Product Support Engineer
British Airways plc



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