

Advisory Wire

REFERENCE NO: AW700-32-0718 rev1

INFORMATION
TYPE:

Maintenance
Operational

ATA: 32-43

EFFECTIVITY: Global 7500 aircraft (70006 – 79999)

SUBJECT: **Brake Control Unit (BCU)**

1. REFERENCES:

None

2. INTRODUCTION:

This Advisory Wire informs Operators that the following braking conditions have been reported:

- 2.1. Brake not responding and/or abrupt braking during low speed maneuvers (less than 20kts).
- 2.2. Uneven braking pulling at low speed and/or uneven brake temperature.

3. DESCRIPTION:

- 3.1. By design, no brake pressure is applied to the brakes until pedal application exceeds 8% of full travel. However, if the brake pedal application is reversed and maintained within the 6-8% deflection, the brakes may not respond to a subsequent increase in input command until a significantly larger pedal application has been reached. Sudden higher brake pressure will then be applied and may cause an abrupt braking response.
- 3.2. The brake pressure feedback is less effective during low pedal input resulting in inconstant brake pressure application by the Brake Control Unit (BCU). As a result, operating at low pedal input might lead to an uneven brake pressure without being corrected by the BCU. Uneven brake temperature is a consequence of this condition. This may become most evident during longer taxi excursions when low pedal inputs are used. Braking during landing or harder brake applications is not affected.

Brake Temperature Monitor System (BTMS) units can also vary amongst individual brakes during brake applications depending on usage and environment conditions. Brake temperature differences have no impact on braking performance when operated according to AFM instructions of Maximum Allowable Brake Temperature for Takeoff.

4. ACTION:

As a mitigation, it is recommended to minimize the low brake pedal application. If brake pedal modulation occurs within the first 8% of travel, releasing all brake pedals before reapplication will improve the braking response and avoid abrupt braking.

Also, since Carbon brake wear is primarily dependent on the total number of brake applications, maximum carbon brake life can be achieved during taxi by using a small number of long, moderately firm brake applications instead of numerous light brake applications.

If an operator is experiencing the above-mentioned conditions, a review of the Aircraft Health Monitoring System (AHMS) data can confirm the condition. Please contact your Field Service Representative (FSR) or the Customer Response Centre to initiate a review of the AHMS data.

A new BCU software update is currently under development to alleviate these conditions. Meanwhile, Bombardier does not recommend replacing the BCU or other brake components until the AHMS data are reviewed to identify the root cause.

Should you have any questions pertaining to this AW or require additional information, please contact your Bombardier Field Service Representative (FSR) or the Customer Response Centre.