

Bombardier (Boeing Canada/De Havilland) DHC-8 Series Aeroplanes

AD/DHC-8/60
Amdt 1

Weight and Balance

6/99

Applicability: All DHC-8 series 100, 200 and 300 aircraft.

Requirement: To preclude the operation of DHC-8 aircraft with CG locations that may be outside the approved CG range:

1. When conducting weight and balance checks, adhere to the restriction in the de Havilland Weight and Balance Manual that prohibits the use of wing jacks.
2. Review the Weight and Balance Manual for each aircraft and determine the method used during the most recent weight and balance check; and,
 - a. If platform scales or bottle jacks at the undercarriage jacking points were used, no further action is required; or,
 - b. If wing jacks were used, or it cannot be ascertained that bottle jacks or platform scales were used, perform a weight and balance procedure following the procedures detailed in the aircraft's Weight and Balance Manual.

Note: Transport Canada AD CF-98-32R1 refers.

Compliance:

1. At each weight and balance check conducted after 17 June 1999.
2. For aircraft on the Australian register as of 17 June 1999, before 16 October 1999. Aircraft entering the Australian register on or after 17 June 1999 and before 17 June 2000 must comply prior to issue of an Australian certificate of airworthiness.

This Amendment becomes effective on 17 June 1999.

Background: Two operators of DHC-8 aircraft have reported incidents of unusual handling characteristics during ground operation. The cause of these incidents was traced to discrepancies between the actual centre of gravity (CG) of the aircraft and the CG recorded in the aircraft log books. All aircraft involved in the incidents had a weight and balance performed, using wing jacks, at some time after delivery from the aircraft manufacturer. A recent Bombardier investigation of weight and balance procedures for high wing aircraft concluded that the use of wing jacks can result in CG errors as large as 2 to 3% of the mean aerodynamic chord for DHC-8 aircraft.

Amendment 1 is raised to limit applicability to series 100, 200 and 300 aircraft in line with Transport Canada revisions.

The initial issue of this Airworthiness Directive became effective on 3 December 1998.