

SUBJECT : Automatic Braking System-Structural Loads
REQUIREMENTS incl. Amdt. : CS 25.305, CS 25.481, CS 25.493, CS 25.571
ASSOCIATED IM/MoC : Yes / No
ADVISORY MATERIAL : --

M-TS-0000474**M-TS Issue: 3****Special Condition****Automatic Braking System-Structural Loads****1. APPLICABILITY**

This SC is applicable to large aeroplanes with an autobrake system installed.

2. SPECIAL CONDITION

In the absence of adequate CS with which compliance could be demonstrated, the actual design shall comply with the following special detailed technical specifications:

A landing pitchover condition must be addressed that takes into account the effect of the autobrake system. The aeroplane is assumed to be at the design maximum landing weight, or at the maximum weight allowed with the autobrake system on. The aeroplane is assumed to land in a tail-down attitude, in accordance with figure 3 of CS-25 Appendix A, at the speeds defined by CS 25.481 and with the horizontal reaction 'Dm' applied at the ground contact point. Following main gear contact, the aeroplane is assumed to rotate about the main gear wheels at the highest pitch rate allowed by the autobrake system. This is considered a limit load condition from which ultimate loads must also be determined. Loads must be determined for critical fuel and payload distributions and centres of gravity. Nose gear loads, as well as airframe loads must be determined. The aeroplane must support these loads as described in CS 25.305.

Note: In addition to the above airworthiness standards, fatigue loads must also be determined and applied in accordance with CS 25.571.