

SPECIAL CONDITION
Storage Containers in the passenger cabin

Doc. No. : **SC-D25.855-01**
Issue : 1
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SUBJECT : **Storage Containers in the passenger cabin**
CERTIFICATION SPECIFICATION : CS 25.855, CS 25.857
PRIMARY GROUP / PANEL : Panel 11 - Cabin Safety
SECONDARY GROUPE / PANEL : None
NATURE : SC

IDENTIFICATION OF ISSUE

EASA has received an application for the installation of Storage Containers in the cabin of business jet aeroplanes.

The containers can either be restrained onto pallets or be directly attached to the seat tracks, by means of strap and fittings. According to CS 25.855(a) each cargo or baggage compartment not occupied by crew or passengers must meet one of the class requirements of CS 25.857. However, the storage container in question do not meet any of the cargo compartment classes definitions specified in CS 25.857.

The storage containers are not equipped with a smoke or fire detection system, and therefore could potentially meet only the Class A definition. However, it cannot be assumed that the flight crew members while at their station will have the capability to easily discover a fire developing inside a storage container. Furthermore, they are not designed to provide adequate access for manual fire-fighting. In fact, even in case a fire was timely detected, the opening of the storage containers would require an appreciable amount of time and effort and may contribute to increase the severity of the fire due to the oxygen entering in the container when opened.

Considering the specificities of the design of the proposed Storage Containers, EASA finds that the approach to be used to control fires likely to occur inside the Storage Containers should not be based on fire-fighting performed by the flight crew members or other occupants but rather on fire containment through oxygen starvation. Operating limitations will be introduced in the AFM to reduce the level of severity of the fires likely to occur inside the Storage Containers.

It must be noted that the level of safety achieved through the proposed fire containment approach is not considered by EASA sufficiently high to allow fare-paying passengers in the cabin when the Storage Containers are loaded.

In conclusion, EASA has determined that the proposed installation represents a novel design feature that is not specifically addressed in CS-25. The special conditions reported below are proposed to establish an adequate level of safety for the installation of Storage Containers in the passenger cabin of Large Aeroplanes with a maximum passenger seating capacity of 19 or less, as indicated in the aeroplane type certificate data sheet (TCDS).

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The present special conditions are applicable to Large Aeroplanes with a maximum passenger seating capacity of 19 or less, as indicated in the aeroplane type certificate data sheet (TCDS).

In lieu of CS 25.855 and of the cargo compartment classification specified in CS 25.857, the installation of Storage Containers in the occupied passenger cabin must meet the following special conditions:

- 1) The AFM must contain operating limitations that:
 - a. specify the exact locations in which the Storage Containers may be installed in the passenger cabin.
 - b. prohibit the carriage of dangerous goods, batteries (including batteries contained in, or packed with, equipment), flammable fluid, mail; inside the Storage Containers
 - c. Limit the use of Storage Containers having an internal volume exceeding 0,5 m³ to the transportation of metallic and non-piercing material.
 - d. Limit to 1,5 m³ the combined internal volume of all the Storage Containers that are not used for the transportation of metallic and non-piercing material.
 - e. Prohibit the transportation of fare-paying passenger when the Storage Containers are installed.
- 2) The AFM must require that a pre-flight briefing is delivered to cabin occupants to ensure that the Storage Containers are not opened during any phase of flight.
- 3) The Storage Containers must contain fires likely to occur based on the operating limitations specified in special condition 1, so that a cargo fire event will not prevent continued safe flight and landing. The ability of the Storage Containers to contain cargo fires under all probable conditions of wear, misalignment, and ventilation expected in service must be demonstrated by test.
- 4) During a cargo fire event developing inside a Storage Container the emission of hazardous quantities of smoke, fumes, or flames into any occupied compartment must be prevented. This must be demonstrated by test.
- 5) There must be means to prevent cargo or baggage from interfering with the functioning of the fire protective features of the Storage Containers.
- 6) Materials used in the construction of the Storage Containers and their restraint system must meet the applicable test criteria prescribed in Part I of Appendix F, or other approved equivalent methods.