

Title (en)

ARRANGEMENT FOR PROVIDING ACTIVE FIRE PROTECTION IN AIRCRAFT

Title (de)

VORRICHTUNG ZUM AKTIVEN BRANDSCHUTZ IN FLUGZEUGEN

Title (fr)

DISPOSITIF DE PROTECTION ACTIVE CONTRE LES INCENDIES DANS LES AVIONS

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Application

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Abstract (en)

[origin: WO2009121655A1] The invention relates to an arrangement (1) for providing active fire protection in aircraft by means of at least one protective shield (12, 13). According to the invention, the at least one protective shield (12, 13) is formed with an intumescent material, which in the event of a fire can be activated, in particular made to expand, in a controlled manner well below the initial temperature otherwise usual for intumescent materials of the order of 250°C by means of an electrical heating device (18, 19). The current temperature in the hold (3) (preferably at various temperature measuring points) of the aircraft is measured by means of at least one temperature sensor (21) and transmitted to a controlling and regulating device (22). In the event of a fire, the heating devices (18, 19) are activated and the intumescent reactions of the protective shields (12, 13) for providing fire protection are initiated within a temperature interval between 90°C and 150°C. The heating devices (18, 19) are preferably arranged in the region of the protective shields (12, 13) or integrated in them and formed with at least one heating wire (17) and/or with a surface heating element (20). The projective shields (12, 13) may be formed both as a plate (14) or as a grid (15), which are respectively produced using a suitable intumescent material. Alternatively, a protective shield may be formed for a structural part with an intumescent coating and an electrical heating device embedded therein. The arrangement is suitable inter alia for providing active fire protection in the area of a hold (3) of an aircraft.

IPC 8 full level

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