

Title (en)

THERMAL PROTECTION SYSTEM FOR A CRYOGENIC VESSEL OF A SPACE VEHICLE

Title (de)

THERMISCHES SCHUTZSYSTEM FÜR EINEN KRYOGENEN BEHÄLTER EINES RAUMFAHRZEUGES

Title (fr)

SYSTÈME DE PROTECTION THERMIQUE POUR UN RÉSERVOIR CRYOGÉNIQUE D'ENGIN SPATIAL

Publication

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Application

EP 14831044 A 20141231

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Abstract (en)

[origin: WO2015107282A1] The invention relates to an assembly that includes a cryogenic fluid vessel of a space vehicle, and a thermal protection system for a cryogenic fluid vessel of a space vehicle (1), including: a shell (3) suitable for surrounding the cryogenic fluid vessel, the shell (3) being sized such as to accommodate an inner space (21) between the shell (3) and the vessel; and means (35, 36) for injecting a spray of a heat-transfer fluid into said inner space (21), characterised in that said heat-transfer fluid is injected into the inner space (21) in liquid state, at a temperature that is suitable for allowing the heat-transfer fluid to capture the heat flux reaching the cryogenic fluid vessel, causing said heat-transfer fluid to vaporise, the shell (3) including a plurality of openings suitable for allowing the heat-transfer fluid in gaseous form to exit said inner space (21) through the shell (3).

IPC 8 full level

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Citation (search report)

See references of WO 2015107282A1

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