

Title (en)  
EMERGENCY RELEASE AND COUPLING DEVICE

Title (de)  
NOTLÖSE- UND KUPPLUNGSVORRICHTUNG

Title (fr)  
DISPOSITIF D'ACCOUPLEMENT ET DE DÉTACHEMENT D'URGENCE

Publication  
**EP 4281696 A1 20231129 (FR)**

Application  
**EP 22700654 A 20220117**

Priority  
• FR 2100472 A 20210119  
• EP 2022050825 W 20220117

Abstract (en)  
[origin: CA3205306A1] Self-closing emergency release and coupling device for the transport of cryogenic fluid comprising two pipes (2, 3) extending in a longitudinal direction and each comprising, at a connection end, a valve mechanism (4, 6, 8; 5, 7, 9) configured to automatically close the pipe when the connection ends are separated and to open the pipe when the connection ends are coupled, the device (1) further comprising a tube (10, 11) arranged around each pipe (2, 3) and defining a vacuum space for thermally insulating the pipeline (2, 3), the device (1) is characterized in that it further comprises a chamber (18, 19) disposed around the valve mechanism (4, 6, 8; 5, 7, 9) and delimited by a wall assembly (s) (12, 13) located (s) between the outer tube (10, 11) and the transport pipe (2, 3), the volume of the insulation chamber (18 19) being independent of the vacuum space between the outer tube (10, 11) and the transport pipe (2, 3).

IPC 8 full level  
**F16L 23/12** (2006.01); **B67D 7/32** (2010.01); **F16L 29/04** (2006.01); **F16L 39/00** (2006.01); **F16L 59/18** (2006.01)

CPC (source: EP KR US)  
**F16L 23/12** (2013.01 - EP KR); **F16L 29/04** (2013.01 - EP KR US); **F16L 39/005** (2013.01 - EP KR); **F16L 59/065** (2013.01 - US); **F16L 59/184** (2013.01 - EP KR US); **F17C 13/04** (2013.01 - KR); **F16L 37/32** (2013.01 - US); **F16L 37/35** (2013.01 - US); **F16L 55/1015** (2013.01 - US); **F16L 2201/20** (2013.01 - US); **F17C 2205/0332** (2013.01 - KR); **F17C 2205/0335** (2013.01 - KR); **F17C 2205/037** (2013.01 - KR); **F17C 2223/0161** (2013.01 - KR); **Y02E 60/32** (2013.01 - EP KR)

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

Designated validation state (EPC)  
KH MA MD TN

DOCDB simple family (publication)  
**FR 3119007 A1 20220722**; **FR 3119007 B1 20230224**; CA 3205306 A1 20220728; CN 116601417 A 20230815; EP 4281696 A1 20231129; JP 2024503590 A 20240126; KR 20230130095 A 20230911; US 2024117911 A1 20240411; WO 2022157091 A1 20220728

DOCDB simple family (application)  
**FR 2100472 A 20210119**; CA 3205306 A 20220117; CN 202280008209 A 20220117; EP 2022050825 W 20220117; EP 22700654 A 20220117; JP 2023539087 A 20220117; KR 20237027546 A 20220117; US 202218273114 A 20220117