

Title (en)
THERMAL PRESSURE RELIEF DEVICE (TPRD), GAS PRESSURE ACCUMULATOR AND GAS PRESSURE ACCUMULATOR SYSTEM HAVING TPRD, AND METHOD FOR THERMAL OVERPRESSURE PROTECTION

Title (de)
THERMISCHE DRUCKENTLASTUNGSVORRICHTUNG (TPRD), GASDRUCKSPEICHER UND GASDRUCKSPEICHERSYSTEM MIT TPRD UND VERFAHREN ZUR THERMISCHEN ÜBERDRUCKABSICHERUNG

Title (fr)
DISPOSITIF DE LIBÉRATION DE PRESSION THERMIQUE (TPRD), ACCUMULATEUR DE GAZ SOUS PRESSION ET SYSTÈME ACCUMULATEUR DE GAZ SOUS PRESSION ÉQUIPÉ D'UN TPRD, ET PROCÉDÉ DE PROTECTION CONTRE LA SURPRESSION THERMIQUE

Publication
EP 4165338 A1 20230419 (DE)

Application
EP 21736518 A 20210610

Priority
• DE 102020207261 A 20200610
• EP 2021065627 W 20210610

Abstract (en)
[origin: CN113775801A] The present invention relates to a thermal pressure relief device (100) for gas pressure accumulators and/or gas pressure accumulator systems, having: a valve unit (110), which can be fluid-connected to the gas pressure accumulator and/or to the gas pressure accumulator system and has at least one fluid path (101) by means of which the gas pressure accumulator and/or the gas pressure accumulator system can be emptied, in particular a gas stored at high pressure in the gas pressure accumulator and/or gas pressure accumulator system can be discharged into the environment, the valve unit (110) having a closure element (111) which can be shifted and/or moved between an open position in which the gas can flow through the fluid path (101) and a closed position in which no gas can flow through the fluid path (101); and a first triggering means (120), which is designed to shift and/or move the closure element (111) into the open position and/or to allow the closure element (111) to shift and/or move into the open position by heat action, in particular when a predefined temperature is reached, wherein the first triggering means (120) is also designed to sense the heat action at least at a further point St2 of the gas pressure accumulator and/or gas pressure accumulator system which is not the installation position St1 of the thermal pressure relief device (100) and/or to sense the heat action at least at two spatially separate points and/or regions, in particular of the gas pressure accumulator and/or gas pressure accumulator system.

IPC 8 full level
F17C 13/04 (2006.01)

CPC (source: CN EP KR US)
F16K 17/40 (2013.01 - CN US); **F16K 37/0025** (2013.01 - CN); **F17C 13/04** (2013.01 - EP KR US); **F17C 13/123** (2013.01 - EP KR); **F17C 2201/0109** (2013.01 - EP KR); **F17C 2203/0619** (2013.01 - US); **F17C 2205/0138** (2013.01 - US); **F17C 2205/0142** (2013.01 - EP KR US); **F17C 2205/0326** (2013.01 - EP KR); **F17C 2205/0332** (2013.01 - EP KR US); **F17C 2205/0335** (2013.01 - EP KR); **F17C 2205/0338** (2013.01 - EP KR); **F17C 2205/0341** (2013.01 - EP KR); **F17C 2205/0385** (2013.01 - EP KR); **F17C 2221/012** (2013.01 - EP KR US); **F17C 2221/033** (2013.01 - EP KR); **F17C 2223/0123** (2013.01 - EP KR); **F17C 2223/036** (2013.01 - EP KR); **F17C 2250/03** (2013.01 - EP KR); **F17C 2250/032** (2013.01 - EP KR); **F17C 2250/034** (2013.01 - EP KR); **F17C 2250/0439** (2013.01 - US); **F17C 2250/0626** (2013.01 - EP KR); **F17C 2250/0631** (2013.01 - EP KR); **F17C 2250/0678** (2013.01 - EP KR); **F17C 2250/0684** (2013.01 - EP KR); **F17C 2260/042** (2013.01 - EP KR); **F17C 2270/0168** (2013.01 - KR); **F17C 2270/0178** (2013.01 - EP KR US); **F17C 2270/0184** (2013.01 - EP KR US); **Y02E 60/32** (2013.01 - EP KR)

Citation (search report)
See references of WO 2021250172A1

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)
DE 102020207261 A1 20211216; AU 2021289001 A1 20230209; CN 113775801 A 20211210; CN 215334698 U 20211228; EP 4165338 A1 20230419; JP 2023529224 A 20230707; KR 20230037028 A 20230315; US 2023235830 A1 20230727; WO 2021250172 A1 20211216

DOCDB simple family (application)
DE 102020207261 A 20200610; AU 2021289001 A 20210610; CN 202011503983 A 20201217; CN 202023057681 U 20201217; EP 2021065627 W 20210610; EP 21736518 A 20210610; JP 2022576836 A 20210610; KR 20237001104 A 20210610; US 202118001226 A 20210610