

Title (en)

Protective system for use in transfer of hazardous substances.

Title (de)

Schutzsystem für den Transport gefährlicher Stoffe.

Title (fr)

Dispositif de protection pour le transport de substances dangereuses.

Publication

**EP 0033219 A1 19810805 (EN)**

Application

**EP 81300265 A 19810121**

Priority

GB 8002888 A 19800129

Abstract (en)

A control system for the product outlet valves of a vehicle tank has pneumatically operated valves (1, 2, 3) associated with each product outlet of the tank, control valves (7, 8, 9) connected to an air reservoir (12) through a charge valve (10) for effecting operation of the outlet valves (1, 2, 3), the charge valve (10) being of a single shot type for pressurising a manifold connected to the product outlet valve or valves (1, 2, 3) the manifold being associated with emergency release valves (15, 16) and a further solenoid operated valve (18) operatively connected with a gas detector means (19), the arrangement being such that either on detection of escaping product vapour by the gas detector (19) or actuation of the emergency release valves (15, 16) pressure in the manifold is vented thereby closing the product outlet valves (1, 2, 3) through release of pressure, the control valves (7,8,9) thereafter being inoperative until the charge valve (10) is actuated to repressurise the manifold. A system for shutting down the vehicle engine is also disclosed.

IPC 1-7

**B60P 3/22**

IPC 8 full level

**B60P 3/22** (2006.01); **F17C 13/12** (2006.01)

CPC (source: EP)

**F17C 13/12** (2013.01); **F17C 2205/0323** (2013.01); **F17C 2260/04** (2013.01); **F17C 2270/0168** (2013.01)

Citation (search report)

- GB 1460723 A 19770106 - ICI LTD
- US 2663459 A 19531222 - LAGRANGE VICTOR E, et al
- US 2600977 A 19520617 - DE FREES JOSEPH H
- FR 2064769 A5 19710723 - JACOB HENRI, et al
- US 1015929 A 19120130 - BAEHR GEORGE [US]
- GB 666136 A 19520206 - HOLMES & CO LTD W C, et al
- GB 1355049 A 19740605 - ICI LTD
- DE 1947724 A1 19710401 - MASCHF AUGSBURG NUERNBERG AG

Cited by

CN110998072A; CN114802680A; FR2730552A1; CN111361493A; EP1108947A1; WO2014031999A3; US9863581B2; US10890294B2

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