

Title (en)

Composite pressure vessel with a plastic liner for the storage of pressurized gaseous fluids

Title (de)

Composite-Druckbehälter zur Speicherung von gasförmigen Medien unter Druck mit einem Liner aus Kunststoff

Title (fr)

Réceptier sous pression en matériau composite pour le stockage de fluides gazeux sous pression

Publication

EP 0821194 B1 20031203 (DE)

Application

EP 97250216 A 19970721

Priority

DE 19631546 A 19960724

Abstract (en)

[origin: DE19631546C1] The bottle has two neck-sections, together with a winding of composite fibrous material reinforcing the liner (2). A valve with parallel thread screws into one or both sections, each of which has an end towards the bottle of flat truncated-cone section with a radiused edge and is inclined to match the liner at the join between the neck and the cylindrical casing. A clamping ring screws into the neck, having an external threaded portion onto which a plain truncated-cone one joins, working against the end of a seal so as to press it against the inside of the neck. The liner bears against the entire underside of the collar (6) on the neck (4). The collar contains two or more axial drillings (8) evenly spaced round the periphery and in which bosses on the liner fit. The cylindrical portion (14) of the neck section has one or more annular grooves (9,10) on the inside and in which the liner engages. The clamping ring (15) presses the portion (13) of the liner extending inside the neck section against the latter's inside surface.

IPC 1-7

F17C 1/16

IPC 8 full level

F17C 1/16 (2006.01)

CPC (source: EP)

F17C 1/16 (2013.01); **F17C 2203/0604** (2013.01); **F17C 2205/0305** (2013.01); **F17C 2223/0123** (2013.01)

Cited by

WO2013020668A1; WO2013020694A1; DE102011056976A1; CN102865455A; DE112004002795B4; CN106224759A; CN108131555A; FR2962782A1; DE102009049948A1; DE102009049948B4; CN101832389A; CN116100841A; US8505762B2; EP2131095A2; EP1586807A2; WO0151844A3; DE102011052490A1; US7032767B2; DE202012101004U1

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