

Title (en)

Apparatus for protecting the extremities of a fluid vessel made of composite material.

Title (de)

Vorrichtung zum Schutz der Enden eines Fluidbehälters aus Schichtmaterial.

Title (fr)

Dispositif pour protéger les extrémités de réservoir de fluide en matériaux composites.

Publication

EP 0398827 B1 19940309 (FR)

Application

EP 90420232 A 19900516

Priority

FR 8906761 A 19890518

Abstract (en)

[origin: EP0398827A1] This apparatus relates to vessels composed of an inner casing (3), of an outer casing (4) and of at least one metal base (5-10) which comprises a cylindrical endpiece arranged substantially in the longitudinal axis of the vessel. <??>According to the invention, it comprises, on each end piece (7), on the one hand a frustoconical metal cup (22) of the same conicity as the base of the endpiece and of an outside diameter at least equal to that of this base, this cup being fixed to a bush (22a) screwed onto a thread (25) formed on the outer part of the corresponding endpiece, on the other hand, a washer (23) made of elastic material, interposed between the cup and the outer face of the end of the vessel, and furthermore a lock nut (24) screwed onto the end piece. <IMAGE>

IPC 1-7

F17C 1/16

IPC 8 full level

F17C 1/06 (2006.01); **B29D 22/00** (2006.01); **F17C 1/02** (2006.01); **F17C 1/16** (2006.01); **F17C 13/12** (2006.01)

CPC (source: EP US)

F17C 1/16 (2013.01 - EP US); **F17C 13/123** (2013.01 - EP US); **F17C 2203/0619** (2013.01 - EP US); **F17C 2203/0643** (2013.01 - EP US);
F17C 2203/0646 (2013.01 - EP US); **F17C 2203/0651** (2013.01 - EP US); **F17C 2203/066** (2013.01 - EP US); **F17C 2203/0663** (2013.01 - EP US);
F17C 2203/0673 (2013.01 - EP US); **F17C 2205/0305** (2013.01 - EP US); **F17C 2223/0123** (2013.01 - EP US); **F17C 2223/013** (2013.01 - EP US);
F17C 2223/031 (2013.01 - EP US); **F17C 2223/036** (2013.01 - EP US); **F17C 2260/011** (2013.01 - EP US)

Cited by

DE102014101972B4; EP0560739A3; FR2792392A1; EP0656506A1; EP3889491A4; DE102014101972A1; US11598487B2; WO9843013A1;
WO0063611A1; WO2021144335A1; US9889491B2

Designated contracting state (EPC)

AT BE CH DE DK ES FR GB GR IT LI LU NL SE

DOCDB simple family (publication)

EP 0398827 A1 19901122; EP 0398827 B1 19940309; AT E102696 T1 19940315; CA 2016314 A1 19901118; CA 2016314 C 19950124;
DE 69007165 D1 19940414; DE 69007165 T2 19940616; FR 2647183 A1 19901123; FR 2647183 B1 19910726; JP 2813415 B2 19981022;
JP H03113199 A 19910514; US 5004120 A 19910402

DOCDB simple family (application)

EP 90420232 A 19900516; AT 90420232 T 19900516; CA 2016314 A 19900508; DE 69007165 T 19900516; FR 8906761 A 19890518;
JP 12432190 A 19900516; US 52419190 A 19900516