

Title (en)

Inflatable structure with opening.

Title (de)

Aufblasbare Struktur mit Öffnung.

Title (fr)

Structure gonflable avec ouverture.

Publication

EP 0043762 A1 19820113 (FR)

Application

EP 81401051 A 19810630

Priority

FR 8014913 A 19800704

Abstract (en)

1. An inflatable structure having an opening (3) and a substantially hemispherical shape, this structure being constituted of an inflatable wall (2) and of tubes (5) which are equally inflatable and which are disposed along meridians, and comprising a stationary part (2) and a mobile part or curtain (3) for obturating the opening, characterized in that in the stationary part constituted of a spherical summit part (7) or umbrella superposed to a portion of a spherical crown (A-B), th tubes which are substantially cylindrical and constitute beam are attached to the wall through their lower generatrix line along portions of meridians (9) located under the summit part as well as on the crown portion, and are disposed in such a way that the substantially cylindrical and circular tubes (5) which are separated from one another in the lower zone of the structure corresponding to the crown portion, become adjacent to each other and ovalised at the height of a parallel plane (6) situated adjacent to the summit part (7) of the structure and delimiting the contour of said spherical summit part in such a way that said tubes lean against each other for developing radial as well as tangential forces which are transferred into the wall to which they are attached.

Abstract (fr)

Structure gonflable avec une ouverture, comportant une partie fixe et une partie mobile. Cette structure est la combinaison d'une paroi gonflable (2) et d'une pluralité de tubes cylindriques gonflables (5), les tubes étant fixés à la paroi par une génératrice, le long de méridiens, répartis sur la partie fixe (3) de la structure de façon que dans la partie basse, les tubes sont séparés, ne se rejoignant qu'à une certaine hauteur le long d'un parallèle (6) situé près du sommet (S) de la structure, lesdits tubes se prolongeant au-delà de ce parallèle en s'appuyant les uns sur les autres de façon à conserver une hauteur égale à leur diamètre dans la partie basse. Application aux radômes d'antennes radioélectriques.

IPC 1-7

H01Q 1/42; E04B 1/345; H01Q 1/08

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CPC (source: EP)

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Citation (search report)

- FR 1163844 A 19581001 - ARIEL SOC
- US 4148332 A 19790410 - HUDDLE CARL F
- US 2908919 A 19591020 - ROBERT BICKNELL, et al
- GB 1187654 A 19700415 - STEINTHAL AND CO INC M [US]
- TECHNIQUE EN ARCHITECTURE, No. 294, Octobre 1973, Paris (FR) M. FOURTANE: "Structures Pneumatiques a Geometrie Variable", pages 92 et 93

Cited by

EP0421722A3; US5479743A; DE4330224A1; FR2709876A1; GB2368599A; GB2368599B; US10965015B2; WO2019213537A1

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