

Title (en)
PNEUMATIC STRUCTURAL ELEMENT

Title (de)
PNEUMATISCHES BAUELEMENT

Title (fr)
ELEMENT DE CONSTRUCTION PNEUMATIQUE

Publication
EP 1989378 A1 20081112 (DE)

Application
EP 06817782 A 20061222

Priority
• CH 2006000732 W 20061222
• CH 20742005 A 20051223

Abstract (en)
[origin: WO2007071101A1] The pneumatic structural element according to the invention comprises from one to a number of interconnected elements of the following construction: two hollow bodies (1) with casings (9) made of textile material preferably coated in a gas-tight manner and having end caps (5) are assembled such that they produce a common sectional area (2). The edging of this sectional area (2) is formed by two curved tension/compression elements (3) into which is clamped a web (4) made of a flexible material of high tensile strength. By filling the two hollow bodies (1) with compressed gas, a tensile stress s is built up in their casings (9) and is transmitted directly or via the tension/compression elements (3) to the web (4) and pretensions said web. This pretensioning greatly increases the bending rigidity of the tension/compression elements (3). If a plurality of such elements is combined to form a roof, every two adjacent hollow bodies (1) thus form a sectional area (2) with a tension/compression element (3) and web (4).

IPC 8 full level
E04H 15/20 (2006.01)

CPC (source: EP US)
E04H 15/20 (2013.01 - EP US); **E04H 2015/204** (2013.01 - EP US)

Citation (search report)
See references of WO 2007071101A1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
WO 2007071101 A1 20070628; CA 2634505 A1 20070628; CA 2634505 C 20151215; CH 704442 B1 20120815; CN 101389821 A 20090318; CN 101389821 B 20110119; EP 1989378 A1 20081112; EP 1989378 B1 20170823; ES 2647492 T3 20171221; US 2009282746 A1 20091119; US 7836636 B2 20101123

DOCDB simple family (application)
CH 2006000732 W 20061222; CA 2634505 A 20061222; CH 20742005 A 20051223; CN 200680053397 A 20061222; EP 06817782 A 20061222; ES 06817782 T 20061222; US 8690706 A 20061222