Title (en)
  PNEUMATIC STRUCTURAL ELEMENT

Title (de)
  PNEUMATISCHES BAUELEMENT

Title (fr)
  ELEMENT CONSTITUTIF PNEUMATIQUE

Publication
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Application
  EP 01903559 A 20010219

Priority
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Abstract (en)
  [origin: WO0173245A1] The invention relates to a pneumatic structural element comprised of an essentially cylindrical air-tight hollow body
  (1) having a radius rh and length Lh and two caps (5), which is manufactured from a preferably textile material that is flexible but has limited
  stretchability. The side of the hollow body placed under load is provided with a push rod (2) having a length Lh, which is prevented from laterally
  buckling on the hollow body (1), and both ends of the hollow body are provided with a knob (3). Inside the knobs (3), at least one pair of traction
  elements (4) is joined in a non-positive manner to the push rod (2). The traction elements (4) extend in a helicoidal and opposed manner while
  revolving around the hollow body (1) with a whole number of revolutions, and they intersect one another at points (8), which are located on a surface
  line (7) of the hollow body (1) opposite the push rod (2). The push rod (2), the surface line (7) and the longitudinal axis <u>A</u> of the hollow body
  (1) define a plane <u>E</u> in which the exerted loads and forces are located.

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