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(54) Self-centering expanding shaft with a composite system

(57) The present invention relates to a self-centering expanding shaft with a composite system - of the type comprising a structural cylinder, equipped with a pneumatic expanding system to block a reel and housing at least one pneumomechanical module to center the reel, said pneumomechanical module comprising a pair of opposed slidable thrust elements (3), coupled with gripping elements (4) apt to be extracted from and

withdrawn into said structural cylinder (1), and two pressure chambers (8a,8b) positioned at its ends, in which said two pressure chambers (8a,8b) are connected through a single pneumatic line (10) which crosses the two thrust elements (3), the extraction of said gripping elements (4) being obtained by supplying compressed air into said compression chambers (8a,8b), and in that, at least an elastic element (7) is provided to act on said thrust elements (3) so as to reset the conditions of rest.

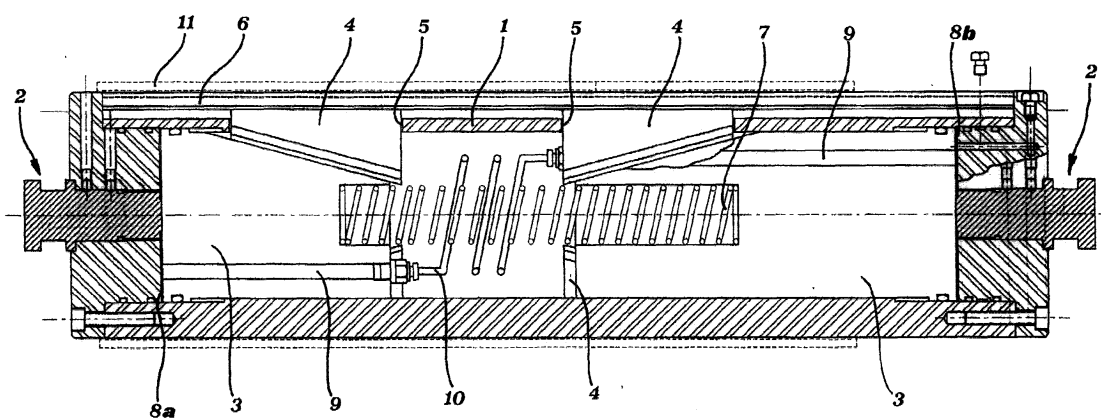


FIG.1

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EUROPEAN SEARCH REPORT

Application Number
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The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 3 December 2001	Examiner Ritter, F
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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