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(72) Inventor: **Ognibene, Claudio, c/o Ognibene S.P.A.
42100 Reggio Emilia (IT)**

(74) Representative: **Corradini, Corrado et al
Studio Ing. C. CORRADINI & C. S.r.l.
4, Via Dante Alighieri
42100 Reggio Emilia (IT)**

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(71) Applicant: **Ognibene S.p.A.
42100 Reggio Emilia (IT)**

(54) **Cylinder-piston unit with device for measuring the position of the piston**

(57) A cylinder-piston unit (1) comprising a cylinder (2) containing in its interior a piston rod (3), at least one end of which emerges from said cylinder (2), said piston rod (3) being rigid with a piston (4) sealedly slidable within said cylinder (2), there being associated with said cyl-

inder-piston unit (1) a device for measuring the axial position assumed by said piston (4) within said cylinder (2); said measuring device comprises M ($M \geq 1$) movable sensor elements (9) rigid with said piston (4) and N ($N \geq 1$) fixed sensor elements (100) positioned external to said cylinder (2).

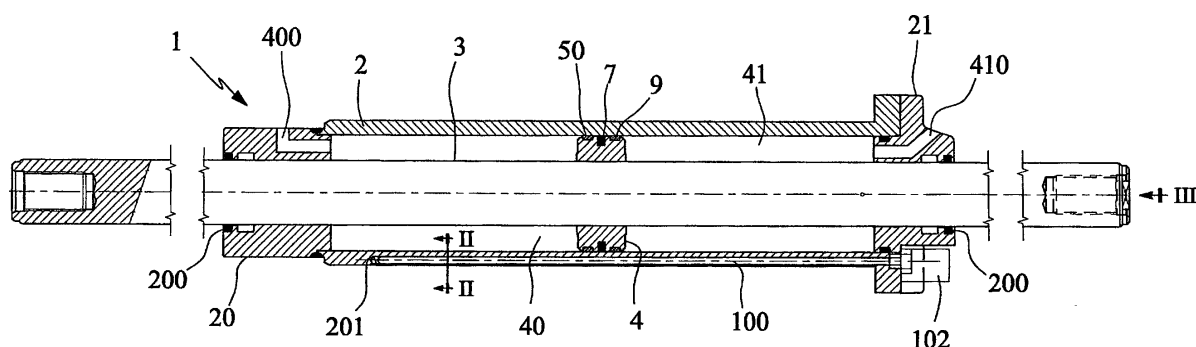


FIG. 1



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EUROPEAN SEARCH REPORT

Application Number
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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	US 5 514 961 A (HANISCH CHRISTOPH ET AL) 7 May 1996 (1996-05-07) * column 1, line 10 - line 41 * * column 2, line 31 - column 3, line 8 * * column 3, line 26 - column 5, line 19 * * column 8, line 11 - line 18; figures * ---	1-9	F15B15/28
X	PATENT ABSTRACTS OF JAPAN vol. 013, no. 043 (P-821), 31 January 1989 (1989-01-31) -& JP 63 238415 A (HITACHI CONSTR MACH CO LTD), 4 October 1988 (1988-10-04) * abstract; figures * ---	1-9	
X	WO 93 14371 A (CATERPILLAR INC) 22 July 1993 (1993-07-22) * page 2, line 18 - page 5, line 29; figures * ---	1-9	
A	US 5 717 330 A (MCFADYEN ANDREW WARREN ET AL) 10 February 1998 (1998-02-10) * column 3, line 49 - column 4, line 39 * * column 6, line 44 - line 51; figure 5 * -----	1-9	TECHNICAL FIELDS SEARCHED (Int.Cl.7) G01D G01B F15B
The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 29 September 2003	Examiner Sbahi, M
CATEGORY OF CITED DOCUMENTS 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 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			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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EP 01 20 3962

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
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