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- (71) **Applicant:** TECHNISCHE UNIVERSITEIT DELFT [NL/NL]; Mekelweg 4, 2628 CD Delft (NL).
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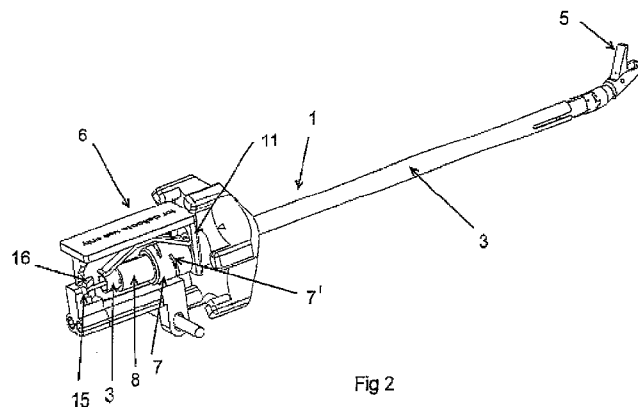
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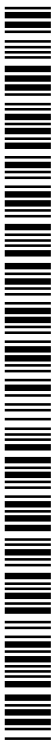
- with international search report (Art. 21(3))
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9 September 2016

(54) **Title:** SURGICAL DEVICE, IN PARTICULAR FOR MINIMALLY INVASIVE SURGERY



(57) **Abstract:** Surgical device (1), in particular for minimally invasive surgery, having a shaft (3) with a distal end (4) equipped with a surgical instrument (5), for instance a grasper, and a proximal end (6) equipped with an actuation device (7, 8) for the surgical instrument, which actuation device can be coupled with a handgrip and/or mechanical actuation means and wherein the surgical instrument is mounted on sliders (9) that are longitudinally movable in opposite directions with respect to each other in the said shaft by operation of the actuation device (7, 8) for actuating the surgical instrument, which sliders (9) are provided adjacent to each other within said shaft (3) and wherein said sliders (9) comprise a first mounted position and a second dismountable position, wherein in the first mounted position the sliders (9) are coupled through a bayonet coupling with the actuation device (7, 8) and are secured while being in this first mounted position against rotation within the said shaft (3) to prevent releasing of the bayonet coupling between the sliders (9) and the actuation device (7, 8), and wherein in the second dismountable position the sliders (9) are concurrently slidable at least partly out of said shaft (3) to a point at which rotation of the remainder of the sliders (9) within the said shaft (3) is enabled, and the bayonet coupling between the sliders (9) and the actuation device (7, 8) is releasable.



INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER INV. A61B17/29 ADD. A61B17/00				
According to International Patent Classification (IPC) or to both national classification and IPC				
B. FIELDS SEARCHED				
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Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) EPO-Internal, WPI Data				
C. DOCUMENTS CONSIDERED TO BE RELEVANT				
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.		
A	EP 2 100 562 A2 (ETHICON ENDO SURGERY INC [US]) 16 September 2009 (2009-09-16) figures 94, 102-104 paragraph [0251] - paragraph [0252] paragraph [0242] -& US 5 865 361 A (MILLIMAN KEITH L [US] ET AL) 2 February 1999 (1999-02-02) figures 40-44 column 13, line 19 - line 49 -----	1-5		
A	WO 99/15090 A1 (SMITH & NEPHEW INC [US]) 1 April 1999 (1999-04-01) figures 1, 3, 4 page 9, line 23 - page 14, line 27 ----- -/--	1-5		
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.				
* Special categories of cited documents : <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none; vertical-align: top;"> "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed </td> <td style="width: 50%; border: none; vertical-align: top;"> "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family </td> </tr> </table>			"A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family
"A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family			
Date of the actual completion of the international search	Date of mailing of the international search report			
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Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer Emirdag, Eda			

INTERNATIONAL SEARCH REPORT

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

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A	EP 2 412 319 A2 (TYCO HEALTHCARE [US]) 1 February 2012 (2012-02-01) paragraph [0121] - paragraph [0125]; figures 5-11 -----	1-5
A	EP 2 676 615 A2 (COVIDIEN LP [US]) 25 December 2013 (2013-12-25) figures 3-5 paragraph [0069] - paragraph [0091] -----	1-5

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