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(71) Applicant: **ETHICON ENDO-SURGERY, INC.**
Cincinnati, Ohio 45242 (US)

(72) Inventors:
• **Giordano, James R.**
Milford, Ohio 45150 (US)
• **Shelton IV, Frederick E.**
New Vienna, Ohio 45159 (US)
• **Swayze, Jeffrey S.**
Hamilton, Ohio 45011 (US)

(74) Representative: **Tunstall, Christopher Stephen et al**
Carpmaels & Ransford
43-45 Bloomsbury Square
London WC1A 2RA (GB)

(54) **Surgical instrument with wireless communication between control unit and sensor transponders**

(57) A surgical instrument (10), such as an endoscopic or laparoscopic instrument, comprising, according to various embodiments, an end effector (12) comprising at least one sensor transponder (368). The surgical instrument also comprises a shaft (8) having a distal end connected to the end effector (12) and a handle (6) connected to a proximate end of the shaft (8). The handle (6) comprises a control unit (300) in communication with the sensor transponder (368) via at least one inductive coupling (302, 320, 324). The surgical instrument (10) may be a power assist motorized device including a battery for powering (at least partially) the surgical instrument (10) during use. The surgical instrument (10) may be adapted to provide user feedback regarding the load being experienced by the end effector.

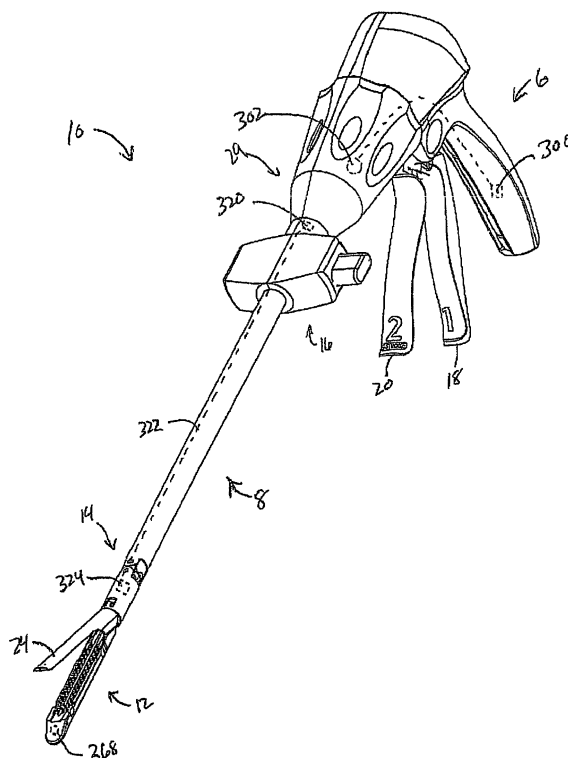


FIG. 13



EUROPEAN SEARCH REPORT

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 EP 08 25 0093

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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Y	WO 2006/132992 A (TYCO HEALTHCARE [US]; VIOLA FRANK J [US]; KREHEL GREGG [US]; PEDROS GU) 14 December 2006 (2006-12-14) * abstract; figures 1,1A *	2	
A	US 2003/093103 A1 (MALACKOWSKI DON [US] ET AL) 15 May 2003 (2003-05-15) * paragraph [0045] - paragraph [0048]; figures 20,21 * * paragraph [0052] - paragraph [0055] *	1,6,7	TECHNICAL FIELDS SEARCHED (IPC) A61B
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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 22 October 2009	Examiner Strazdauskas, Gedas
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 08 25 0093

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The members are as contained in the European Patent Office EDP file on
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22-10-2009

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专利名称(译)	在控制单元和传感器发送应答器之间进行无线通信的手术器械		
公开(公告)号	EP1943957A3	公开(公告)日	2009-12-02
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[标]申请(专利权)人(译)	伊西康内外科公司		
申请(专利权)人(译)	爱惜康内镜手术，INC.		
当前申请(专利权)人(译)	爱惜康内镜手术，INC.		
[标]发明人	GIORDANO JAMES R SHELTON IV FREDERICK E SWAYZE JEFFREY S		
发明人	GIORDANO, JAMES R. SHELTON IV, FREDERICK E. SWAYZE, JEFFREY S.		
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优先权	11/651715 2007-01-10 US		
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外部链接	Espacenet		

摘要(译)

一种外科手术器械(10)，例如内窥镜或腹腔镜器械，根据各种实施例，包括末端执行器(12)，该末端执行器(12)包括至少一个传感器应答器(368)。手术器械还包括轴(8)，其具有连接到末端执行器(12)的远端和连接到轴(8)的近端的手柄(6)。手柄(6)包括通过至少一个电感耦合器(302,320,324)与传感器应答器(368)连通的控制单元(300)。手术器械(10)可以是动力辅助机动装置，其包括用于在使用期间(至少部分地)为手术器械(10)供电的电池。手术器械(10)可以适于提供关于末端执行器所经历的负载的用户反馈。

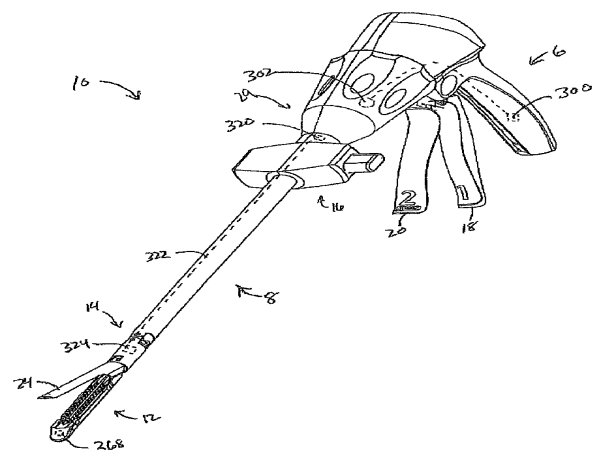


FIG. 13