

Title (en)
HANDHELD SURGICAL ENDOSCOPE

Title (de)
CHIRURGISCHES HANDENDOSKOP

Title (fr)
ENDOSCOPE CHIRURGICAL MANUEL

Publication
EP 3570723 A4 20210217 (EN)

Application
EP 18742010 A 20180123

Priority

- US 201762449257 P 20170123
- US 201762452883 P 20170131
- US 201715462331 A 20170317
- US 201762513386 P 20170531
- US 201762530238 P 20170709
- US 201762531212 P 20170711
- US 201715651526 A 20170717
- US 201762573380 P 20171017
- US 201762578407 P 20171028
- US 201762594013 P 20171203
- US 201715855532 A 20171227
- US 2018014880 W 20180123

Abstract (en)
[origin: WO2018136950A1] A handheld surgical endoscope has a reusable portion and a disposable, single- use portion that includes a fluid hub, cannula, distal tip and an integrated, internally mounted needle moved between a retracted and an extended position with a finger actuated tab. The distal tip includes LED illumination and an imaging module that can be digital and feeds live video to the display module that is rotatable to allow viewing by the operator and others. The imaging module can have a wide field of view (FOV), e.g. 140°, using no more than 2 lenses, and the LEDs are arranged to have a field of illumination (FOI) that matches the FOV. Provisions can be included to equalize image brightness when the imaged surface is not uniformly illuminated. The single-use and re-usable portions mate and un-mate with each other via physically well-separated mechanical and electrical connectors. The needle delivers liquid from a syringe that can be attached to the handle to move therewith or only connected to the endoscope by a flexible conduit. The surgical endoscope is configured for operation by a single clinician in many procedures.

IPC 8 full level
A61B 1/012 (2006.01); **A61B 1/00** (2006.01); **A61B 1/015** (2006.01); **A61B 1/018** (2006.01); **A61B 1/05** (2006.01); **A61B 1/06** (2006.01); **A61M 5/34** (2006.01); **A61B 17/34** (2006.01); **A61B 90/00** (2016.01)

CPC (source: CN EP US)
A61B 1/00039 (2013.01 - CN); **A61B 1/00042** (2022.02 - EP US); **A61B 1/00052** (2013.01 - CN EP); **A61B 1/00096** (2013.01 - CN EP); **A61B 1/00103** (2013.01 - CN EP US); **A61B 1/00105** (2013.01 - CN EP); **A61B 1/00177** (2013.01 - CN EP); **A61B 1/00183** (2013.01 - CN EP); **A61B 1/015** (2013.01 - CN EP); **A61B 1/018** (2013.01 - CN EP); **A61B 1/05** (2013.01 - CN EP); **A61B 1/0676** (2013.01 - CN EP); **A61B 1/0684** (2013.01 - CN EP); **A61B 17/3478** (2013.01 - EP); **A61B 2090/062** (2016.02 - EP); **A61B 2090/0811** (2016.02 - EP); **A61M 5/34** (2013.01 - EP)

Citation (search report)

- [X] US 2015150441 A1 20150604 - OUYANG XIAOLONG [US], et al
- [IY] US 2016174819 A1 20160623 - OUYANG XIAOLONG [US], et al
- [I] EP 2721992 A1 20140423 - STORZ KARL ENDOVISION INC [US]
- [Y] WO 2012151073 A2 20121108 - ENDOSEE CORP [US], et al
- [A] US 2005245789 A1 20051103 - SMITH DAVID [US], et al
- See references of WO 2018136950A1

Designated contracting state (EPC)
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DOCDB simple family (publication)
WO 2018136950 A1 20180726; CN 110234265 A 20190913; CN 110234265 B 20220527; CN 114246539 A 20220329; CN 114271761 A 20220405; CN 114305290 A 20220412; EP 3570723 A1 20191127; EP 3570723 A4 20210217

DOCDB simple family (application)
US 2018014880 W 20180123; CN 201880007960 A 20180123; CN 202111328490 A 20180123; CN 202111328491 A 20180123; CN 202111328492 A 20180123; EP 18742010 A 20180123