

Title (en)

EXCAVATION TOOL AND EXCAVATION METHOD

Title (de)

AUSGRABUNGSWERKZEUG UND AUSGRABUNGSVERFAHREN

Title (fr)

OUTIL D'EXCAVATION ET PROCÉDÉ D'EXCAVATION

Publication

**EP 3406841 A4 20190925 (EN)**

Application

**EP 16886486 A 20161208**

Priority

- JP 2016008874 A 20160120
- JP 2016086558 W 20161208

Abstract (en)

[origin: EP3406841A1] A drilling tool of the invention includes an air supply pipe inserted through an inner circumference of a drilling pipe having a tip portion on which a tool main body is disposed. The air supply pipe being configured to supply compressed air. A supply channel is provided on an outer circumference of the drilling pipe. A discharge channel is formed on the tip portion of the tool main body. The discharge channel is configured to discharge cuttings generated together with the drilling fluid into a space between the drilling pipe and the air supply pipe. An exhaust gas outlet opening into the space is formed at a tip portion of the air supply pipe.

IPC 8 full level

**E21B 10/60** (2006.01); **E02D 5/36** (2006.01); **E21B 7/20** (2006.01); **E21B 10/38** (2006.01); **E21B 10/64** (2006.01); **E21B 21/14** (2006.01)

CPC (source: EP US)

**E02D 5/36** (2013.01 - EP US); **E21B 7/20** (2013.01 - EP US); **E21B 10/38** (2013.01 - US); **E21B 10/60** (2013.01 - EP US);  
**E21B 21/14** (2013.01 - EP US)

Citation (search report)

- [I] JP 2013028936 A 20130207 - CHEMICAL GROUT CO
- [A] US 3807514 A 19740430 - MURRELL J
- [A] WO 2010071563 A1 20100624 - SANDVIK INTELLECTUAL PROPERTY [SE], et al
- [A] WO 2014142011 A1 20140918 - MITSUBISHI MATERIALS CORP [JP]
- [A] WO 9424405 A1 19941027 - SANDVIK AB [SE]
- See references of WO 2017126247A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

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WO 2017126247 A1 20170727

DOCDB simple family (application)

**EP 16886486 A 20161208; CN 201680071232 A 20161208; JP 2016008874 A 20160120; JP 2016086558 W 20161208;**  
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