

Title (en)
Method for building a diaphragm wall in the ground and trench wall cutting apparatus

Title (de)
Verfahren zum Herstellen einer Schlitzwand im Boden, Schlitzwandfräse und Schlitzwandfräsvorrichtung

Title (fr)
Procédé pour creuser des tranchées dans le sol et fraiseuse à rideau souterrain

Publication
EP 1452645 B1 20070912 (DE)

Application
EP 04000766 A 20040115

Priority
DE 10308538 A 20030227

Abstract (en)
[origin: EP1452645A1] A method for preparing underground slit walls has a slitting head (10) comprising a support frame (10) with one or two rotating cutting discs (12, 12') lowered into the ground by a telescopic support. The slitting head removes materials from under the head and the spoil is directed to the void above the head. At the same time a binding fluid is injected into the spoil via a duct (41) terminating at the slitting head. The slit is cut by repeated raising and lowering of the slitting head, which mixes the setting fluid with the spoil. The spoil and setting fluid set eventually to form the slit wall.

IPC 8 full level
E02D 17/13 (2006.01); **E02F 5/08** (2006.01); **E02D 5/18** (2006.01); **E02D 5/20** (2006.01); **E02D 5/46** (2006.01); **E02F 3/20** (2006.01); **E02F 5/02** (2006.01); **E02F 5/10** (2006.01); **E21B 10/08** (2006.01)

CPC (source: EP KR US)
E02D 17/13 (2013.01 - EP US); **E02F 3/205** (2013.01 - EP US); **E21B 10/08** (2013.01 - KR)

Cited by
EP2202362A1; EP4296431A1; EP3081699A1; WO2023247094A1; DE102009036848A1; EP3543408A1; US11466420B2; WO2019179770A1; DE102005059824B3; EP2924174A1; EP1748110A2; EP3296468A1; DE102009036848A8; DE102009036848B4; EP4239130A1; WO2023165796A1; EP3556942A1; US11286637B2; US11236480B2; US9850637B2; EP3919684A1; EP4198204A1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)
EP 1452645 A1 20040901; EP 1452645 B1 20070912; EP 1452645 B2 20130501; AT E373144 T1 20070915; AT E416277 T1 20081215; CA 2457229 A1 20040827; CA 2457229 C 20080115; CN 1282805 C 20061101; CN 1525016 A 20040901; CN 1928262 A 20070314; CN 1928262 B 20110608; CY 1108828 T1 20140409; DE 10308538 A1 20040916; DE 10308538 B4 20050217; DE 10308538 C5 20141106; DE 502004004919 D1 20071025; DE 502004008606 D1 20090115; DK 1752583 T3 20090323; EP 1752583 A2 20070214; EP 1752583 A3 20080402; EP 1752583 B1 20081203; ES 2293103 T3 20080316; ES 2293103 T5 20130723; ES 2318653 T3 20090501; HK 1067393 A1 20050408; HK 1099063 A1 20070803; JP 2004257234 A 20040916; JP 3761889 B2 20060329; KR 100572023 B1 20060418; KR 20040077547 A 20040904; PL 209264 B1 20110831; PL 365277 A1 20040906; PT 1452645 E 20071010; PT 1752583 E 20090206; RU 2004103799 A 20050727; RU 2275469 C2 20060427; SG 127712 A1 20061229; SI 1452645 T1 20080229; SI 1452645 T2 20130628; SI 1752583 T1 20090630; US 2004234345 A1 20041125; US 2007044347 A1 20070301; US 7152346 B2 20061226; US 7356947 B2 20080415

DOCDB simple family (application)
EP 04000766 A 20040115; AT 04000766 T 20040115; AT 06024531 T 20040115; CA 2457229 A 20040206; CN 200410008261 A 20040227; CN 200610151691 A 20040227; CY 091100207 T 20090225; DE 10308538 A 20030227; DE 502004004919 T 20040115; DE 502004008606 T 20040115; DK 06024531 T 20040115; EP 06024531 A 20040115; ES 04000766 T 20040115; ES 06024531 T 20040115; HK 04110253 A 20041224; HK 07105227 A 20070517; JP 2004048114 A 20040224; KR 20040013462 A 20040227; PL 36527704 A 20040216; PT 04000766 T 20040115; PT 06024531 T 20040115; RU 2004103799 A 20040210; SG 200401033 A 20040225; SI 200430490 T 20040115; SI 200431025 T 20040115; US 59213206 A 20061103; US 78645804 A 20040226