

Title (en)

APPARATUS AND METHODS FOR CUTTING SOIL AND IN SITU CONSTRUCTION OF SUBSURFACE CONTAINMENT BARRIERS

Title (de)

GERÄT UND VERFAHREN ZUM BODENEINSCHNEIDEN UND IN-SITU-KONSTRUKTION VON UNTERIRDISCHEN RÜCKHALTEBARRIEREN

Title (fr)

APPAREIL ET PROCEDES DE DECOUPAGE DU SOL ET DE CONSTRUCTION IN SITU DE BARRIERES DE CONFINEMENT SOUS LA SURFACE DU SOL

Publication

EP 0546154 B1 19970122 (EN)

Application

EP 92914604 A 19920622

Priority

- US 9205303 W 19920622
- US 71986391 A 19910624
- US 72012091 A 19910624

Abstract (en)

[origin: WO9300483A1] An apparatus for cutting soil and constructing containment barriers, such as for constructing a subsurface containment walls or bassins for contaminated material, comprises a beam (4) pivoted to a support (6) on the surface for abutting an extended length of soil (2a). The beam (4) comprises a cutting means for creating a cutting action against the extended length of abutting soil. The cutting means is preferably a conduit containing a plurality of jet ports through which high pressure fluid is ejected to impact the soil to be cut. The conduit is preferably rapidly reciprocated. As cutting occurs, the beam (4) and the conduit pivot relative to the support to maintain the cutting apparatus adjacent the face of the soil (2a) to be cut. If the support is mobile, it can advance the cutting action by pulling the beam and conduit beyond the sector through which the beam (4) and conduit can pivot. A method of cutting soil comprises generating cutting action along an extended locus of soil, and advancing the cutting action along a descending locus of the soil (2a) in response to gravity.

IPC 1-7

E02D 5/00; **E02D 5/18**

IPC 8 full level

E02D 19/16 (2006.01); **E02D 31/00** (2006.01); **E02F 3/88** (2006.01); **E02F 3/92** (2006.01); **E02F 5/10** (2006.01)

CPC (source: EP)

E02D 19/16 (2013.01); **E02D 31/00** (2013.01); **E02F 3/88** (2013.01); **E02F 3/8825** (2013.01); **E02F 3/9206** (2013.01); **E02F 5/10** (2013.01); **E02D 2250/003** (2013.01)

Citation (examination)

DE 3439858 A1 19860430 - GKN KELLER GMBH [DE]

Cited by

CN111919002A; CN112392080A; CN113187002A

Designated contracting state (EPC)

AT BE CH DE DK ES FR GB GR IT LI LU MC NL SE

DOCDB simple family (publication)

WO 9300483 A1 19930107; AT E148190 T1 19970215; AU 2303192 A 19930125; CA 2090242 A1 19921225; DE 69217016 D1 19970306; EP 0546154 A1 19930616; EP 0546154 A4 19931201; EP 0546154 B1 19970122

DOCDB simple family (application)

US 9205303 W 19920622; AT 92914604 T 19920622; AU 2303192 A 19920622; CA 2090242 A 19920622; DE 69217016 T 19920622; EP 92914604 A 19920622