

Title (en)

Method to dig out stone blocks and apparatus to carry out said method.

Title (de)

Abgrabverfahren von Steinblöcken und Anordnung zum Ausführen des Verfahrens.

Title (fr)

Procédé d'excavation de blocs de pierre et dispositif de mise en oeuvre du procédé.

Publication

**EP 0619416 A1 19941012 (EN)**

Application

**EP 94105189 A 19940331**

Priority

IT MI930683 A 19930406

Abstract (en)

Method and apparatus for extracting blocks of stone material by means of tubular expansion devices operated at high fluid pressures. The devices are introduced at ambient pressure into cylindrical bores formed in the material to be excavated, in the region of the desired parting planes of the block from the rock. The pressure is then increased up to 100-500 bar so as to obtain parting of the block. Each expansion device consists of a tube of plastic material with a high modulus of elasticity provided at its opposite ends with metal sealing members which are axially bored and connected to one another by a metal rod housed inside the tube. <IMAGE>

IPC 1-7

**E21C 37/10**

IPC 8 full level

**E21C 37/10** (2006.01)

CPC (source: EP)

**E21C 37/10** (2013.01)

Citation (search report)

- [XY] FR 2671376 A1 19920710 - BROLE JEAN [FR], et al
- [XY] EP 0182510 A1 19860528 - OKUMURA CORP [JP]
- [Y] GB 2131854 A 19840627 - KAJIMA CORP
- [Y] WO 8602404 A1 19860424 - GISLAVED AB [SE]
- [XA] US 1630470 A 19270531 - CLIFFORD WALTER B

Cited by

ITPI20080090A1; WO2009040704A1; WO2014191930A3

Designated contracting state (EPC)

AT BE CH DE DK ES FR GB GR IE IT LI NL PT SE

DOCDB simple family (publication)

**EP 0619416 A1 19941012; EP 0619416 B1 19980527**; AT E166697 T1 19980615; DE 69410522 D1 19980702; IT 1264784 B1 19961010; IT MI930683 A0 19930406; IT MI930683 A1 19941006

DOCDB simple family (application)

**EP 94105189 A 19940331**; AT 94105189 T 19940331; DE 69410522 T 19940331; IT MI930683 A 19930406