

Title (en)
Method of cutting a solid compact material.

Title (de)
Verfahren zum Schneiden eines soliden kompakten Materials.

Title (fr)
Procédé de découpage d'une matière solide compacte.

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Application
EP 84402210 A 19841105

Priority
FR 8318060 A 19831107

Abstract (en)
1. A process for creating a substantially plane cut in a mass or compact solid material such as a rock block or mass, this process including the drilling, in the plane of the cut which it is desired to create, of at least two holes (101, 110), the sealing (3, 6) of these holes, and the placing under pressure of a fluid contained in their sealed parts, characterised in that these holes (101, 110) are disposed in such a manner that each hole, in a first zone of the plane, is situated at a distance from another hole less than about five times its diameter, or intersects the other hole, and is situated at a greater spacing from this other hole in a second zone of the plane, and that each of two holes (101, 110) is sealed (6) at least between the first zone or the plane and the free extremity or extremities of the said hole or at the level of these (3), in that a first pressure value P1 is determined which is capable of causing the appearance in the said first zone, but not in the second zone, of a fissure (2) into which some of the said fluid is forced, and a second pressure value P2 capable of resulting in the guidance, into the second zone, of a fissure having appeared in the first zone, and in that the pressure is raised simultaneously in both holes, at least in the first zone, to the value P1 and in that the pressure is maintained in the holes, at least in a part of the second zone, at the value P2 until the cut extends as far as desired.

Abstract (fr)
La présente invention est relative au découpage de masses solides, et notamment à l'extraction et à l'équarrissage de roches. Le but de l'invention est de fournir un procédé avantageux et économique pour découper la masse sensiblement suivant un plan choisi à l'avance. Pour cela on fore plusieurs trous (107 à 110) tous dans le plan choisi, et on fait progresser dans ce plan une fissure initiale (2), créée en un point où deux trous se trouvent très proches, par injection de fluide sous pression dans cette fissure, les trous étant tous maintenus sous pression sur une longueur suffisante pour servir de guidage à la propagation de la fissure, qui reste ainsi dans le plan choisi.

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