

Title (en)
METHOD OF INTER-HOLE DELAY BLAST

Title (de)
VERFAHREN ZUR SPRENGUNG MIT VERZÖGERUNG

Title (fr)
PROCÉDÉ D'EXPLOSION À RETARD ENTRE DES TROUS

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Application
EP 15845338 A 20150209

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Abstract (en)
[origin: WO2016047812A1] A method of blasting the rock, wherein the blastholes along the rows are fired with the shortest inter-hole delay time ranging from 0.1 ms to 4.5ms in such a manner that a stressfield propagates within the stressfield pre-propagated from the preceding adjacent blasthole, thereby enhancing the fragmentation and preventing the explosive energy released to the venting of explosion gas, and the environmental impact caused by the production of excessive sound. The shortest inter-hole delay time is obtained by the length of the shock tube which is a requisite for transmitting the initiation signals to the blastholes and is used in the non-electric bidirectional firing systems such as PULKKOT system. The shock tube itself is the precise blasting and delaying mean which could provide the shortest delay time at a lowest production cost, prevent the enormous economic loss due to the use of the delay detonators with the inter-hole delays of 9ms, 17ms, 25ms and 42ms, and increase the effect of the explosive energy over 1.5 times. The shortest inter-hole delay time may also be provided by the control of the electronic initiation system, but in which case, the cost is more than 5 times expensive. The present invention is based on practical experiences of more than 50 years and has been utilized in the blasting practices for over 20 years.

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