

Title (en)

Method for lining a tunnel with concrete

Title (de)

Verfahren zum Auskleiden eines Tunnels mit Ortbeton

Title (fr)

Procédé pour le revêtement d'un tunnel avec béton coulé sur place

Publication

EP 1870559 B1 20091118 (EN)

Application

EP 07011898 A 20070618

Priority

AU 2006903352 A 20060621

Abstract (en)

[origin: EP1870559A2] A rock bolt (15, 115, 215) able to withstand two levels of tension within its tendon (16) is disclosed. The rock bolt is used in a tunnel (1) where the rock is subject to squeezing. After an initial installation with initial tension, plates (4) carried by the rock bolts are permitted to be squeezed together. Then a higher tension is created in the tendons (16) and the plates used to construct a concrete lining (9). The rock bolt preferably has first and second anchors. The first anchor can be chemical (grout) or mechanical (50). The second anchor (30, 40) is able to be triggered (36) by a pull chord (23) after the initial squeezing has taken place. An electric circuit (92, 93) is located in a breather tube (91) to signal that no more grout should be inserted via a grout tube (21).

IPC 8 full level

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CPC (source: EP)

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Cited by

CN109667598A; CN105134269A; CN111577320A; CN109281694A; CN118462223A; CN117988908A; WO2015176081A3

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EP 07011898 A 20070618; AT 07011898 T 20070618; DE 602007003263 T 20070618; EP 09010175 A 20070618; ES 07011898 T 20070618; PL 07011898 T 20070618; PT 07011898 T 20070618