

Title (en)

Method for securing in advance the roof when driving tunnels

Title (de)

Verfahren zur vorausseilenden Firstsicherung von Tunnelauffahrungen

Title (fr)

Procédé pour sécuriser à l'avant le toit dans le creusement des tunnels

Publication

EP 0774566 B1 20010404 (DE)

Application

EP 96118382 A 19961115

Priority

DE 19542971 A 19951117

Abstract (en)

[origin: EP0774566A1] The process is used as a rapid emergency method of securing the ridge of a tunnel using injection boring. A bore is drilled from the surface (18) in a manner in which the alignment can be controlled fully, in the direction of the region (14) which is above the future tunnel ridge. Injector elements (24,26) are created in this region, also in a manner in which the alignment can be controlled fully, and preferably are parallel to, and directly above, the future tunnel ridge. The injector elements may also have a shape which is curved.

IPC 1-7

E21D 11/00; **E21D 9/00**; **E21D 11/10**

IPC 8 full level

E21D 9/00 (2006.01); **E21D 11/00** (2006.01); **E21D 11/10** (2006.01); **E21D 9/06** (2006.01)

CPC (source: EP)

E21D 9/001 (2013.01); **E21D 9/0671** (2016.01); **E21D 11/10** (2013.01)

Cited by

EP2610587A1; EP1178180A4; CN109372520A; CN108049878A; CN101818647A; EP2610586A1; EP2034129A3; EP1447521A3; US6893188B2

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