

Title (en)
Method and apparatus for enlarging tunnels.

Title (de)
Verfahren und Gerät zum Erweitern von Tunneln.

Title (fr)
Procédé et dispositif pour l'élargissement de tunnels.

Publication
EP 0334262 B1 19940112 (EN)

Application
EP 89104960 A 19890320

Priority
IT 1992188 A 19880324

Abstract (en)
[origin: EP0334262A1] Method and apparatus for enlarging tunnels in service, characterised by installing a protection shield (60) within the original tunnel to protect through traffic (5) in the section of the tunnel involved in the enlarging operations, consolidating the section to be enlarged on a profile corresponding substantially to the extrados of the enlarged tunnel, demolishing the old lining down to the level of the direct bearings, demolishing the direct bearings and lining the enlarged tunnel.

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E21D 9/00

IPC 8 full level
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CPC (source: EP)
E21D 9/01 (2016.01); **E21D 11/003** (2013.01)

Cited by
EP1972753A1; ITTO20110316A1; NL9301988A; CN102121385A; EP0385233A3; EP0757158A1; EP0887512A3; CN103573270A; AT500950B1; CN103276706A; AT512352A3; AT512352B1; CN102094656A; CN110593893A; CN109723455A; DE102019129543A1; WO9514141A1; WO2008034415A1; WO2018153926A1; EP0887512A2

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