

Title (en)

PROCESS TO EXCAVATE THE INVERTED LOWER ARCH IN EXISTING TUNNELS AND APPARATUS TO CARRY OUT THE PROCESS

Publication

EP 0385233 B1 19920415 (EN)

Application

EP 90103224 A 19900220

Priority

IT 8334789 A 19890303

Abstract (en)

[origin: EP0385233A2] Process to excavate the inverted lower arch in existing tunnels, tracks (11-111) for vehicles passing within the tunnels (10) being protected by a protective shield (16) placed between the tracks (11-111) and the inner walls of the tunnels (10), the portion of the tracks (11-111) involved in the excavation being made to cooperate with provisional, temporary support means (14), the process providing for performance of the working steps connected with the excavation of the inverted lower arch (13) in existing tunnels (10) without interrupting the normal flow of traffic passing within the existing tunnels (10) in which work is to be done, the working steps connected with the excavation being organized and carried out within the circular space contained between the protective shield (16) and the extrados of the tunnel (10) and below the portion of track (11-111) momentarily upheld by the temporary support means (14). Apparatus to excavate the inverted lower arch (13) in existing tunnels (10), which employs the above process and consists of: - a vault-shaped structure (19) able to move on its own runways (20), - arms (21) to support the excavation equipment, - excavation equipment (22) and - means to excavate service channels (34).

IPC 1-7

E01B 27/02; **E01B 27/10**; **E21D 9/00**

IPC 8 full level

E01B 27/02 (2006.01); **E01B 27/10** (2006.01); **E21D 9/00** (2006.01)

CPC (source: EP)

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Cited by

EP0757158A1; EP1621671A3

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EP 0385233 A2 19900905; **EP 0385233 A3 19901128**; **EP 0385233 B1 19920415**; AT E74999 T1 19920515; DE 69000064 D1 19920521; DK 0385233 T3 19920622; ES 2031713 T3 19921216; IT 1234182 B 19920505; IT 8983347 A0 19890303

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