

Title (en)

Lining for tunnels and nining galleries

Title (de)

Ausbau für Tunnel und bergbauliche Strecken

Title (fr)

Revêtement de tunnels et galeries de mines

Publication

**EP 0799970 B1 20030917 (DE)**

Application

**EP 97105226 A 19970327**

Priority

- DE 19613517 A 19960403
- DE 19620290 A 19960521

Abstract (en)

[origin: EP0799970A2] The member is for a tunnel of circular or part-circular cross-section. The walling has a supporting dish-section, while on the inside is one of concrete. The first dish-section, bearing against the rock, curves to match the tunnel cross-section. It comprises solid-steel profiled members embedded in injected concrete. The upright (4) bears against the rock, while the arm flanges (7) extend towards the tunnel interior. All three have beads (9) running along their lengthwise edges, and they are at 120 deg. intervals. Alternatively, the arm flanges can include an angle of 90 deg., while the angle between each of them and the upright portion is 135 deg. The beads can be of round cross-section.

IPC 1-7

**E21D 11/20**; **E21D 11/10**; **E21D 11/14**; **E04C 5/03**

IPC 8 full level

**E21D 11/10** (2006.01); **E21D 11/20** (2006.01)

CPC (source: EP)

**E21D 11/107** (2013.01); **E21D 11/20** (2013.01)

Cited by

CN113463764A; CN110159312A; CN113914905A; CN111022084A; US9662694B2

Designated contracting state (EPC)

AT CH DE ES FR LI

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**EP 0799970 A2 19971008**; **EP 0799970 A3 19980819**; **EP 0799970 B1 20030917**; AT E250180 T1 20031015

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