Title (en)
Tunnel multi-storey

Title (de)
Tunnel mehrgeschossigen

Title (fr)
Tunnel à plusieurs étages

Publication
EP 2317074 B1 20111102 (EN)

Application
EP 09075489 A 20091103

Priority
EP 09075489 A 20091103

Abstract (en)
[origin: EP2317074A1] The tunnel multi deck is a roadway tunnel of circular cross section (1), with two-way separated, characterized by having two slabs (2) (3) along its full width, one placed roughly at the half height of the tunnel and the other placed slightly above the bottom of the tunnel, in order to create three overlapping galleries, isolated and independent: two identical roadway galleries (4) (5), one for each way of traffic, and a service gallery (6), at the bottom. The slabs (2) (3) have openings (7), placed close to the circular wall of the tunnel (1), in one or in both sides, regularly spaced and protected with fireguard devices of box type (8), which are connected through closed vertical access galleries (10), to allow for safe passage of people from the roadway galleries (4) (5) to the service gallery (6). The service gallery (6) is provided with emergency vehicles of shuttle-type (9), circulating suspended from the slab (3), to allow for the access of personnel and the evacuation of people in case of accident or fire inside the tunnel. Lisbon, October 29, 2009

IPC 8 full level
E21D 9/14 (2006.01); **E02D 29/045** (2006.01); **E21D 11/00** (2006.01)

CPC (source: EP)
E21D 9/14 (2013.01); **E21D 11/003** (2013.01)

Cited by
CN103195083A; CN103147461A; CN106013220A; CN110608048A; CN103195084A; CN107345402A; CN108824481A; CN109751061A

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

DOCDB simple family (publication)
EP 2317074 A1 20110504; **EP 2317074 B1 20111102**; AT E531896 T1 20111115; DK 2317074 T3 20120312; ES 2376724 T3 20120316

DOCDB simple family (application)
EP 09075489 A 20091103; AT 09075489 T 20091103; DK 09075489 T 20091103; ES 09075489 T 20091103