

Title (en)  
Railway tunnel of improved safety

Title (de)  
Eisenbahntunnel mit verbesserter Sicherheit

Title (fr)  
Tunnel ferroviaire avec sécurité renforcée

Publication  
**EP 2505774 A1 20121003 (EN)**

Application  
**EP 11002769 A 20110402**

Priority  
EP 11002769 A 20110402

Abstract (en)  
The railway tunnel of improved safety is a tunnel of circular section (1) built with a tunnel boring machine, having a slab (3), placed slightly over the bottom of the tunnel, and a separating wall (2), disposed at the middle of the tunnel, forming two independent railway galleries completely isolated, and a service gallery (6), below. On the slab (3), close to the circular wall (1), on both sides, fire devices of box type (10) are disposed, which are extended down, forming vertical access galleries (8), to allow for the safe passage of people to the service gallery, in case of accident or fire inside the tunnel. The separating wall (2) disposes of large openings (7), provided with fire doors, regularly spaced along the length of the tunnel, to allow for the passage of the trains from one line to the other, in the case one of the lines became out of service. The service gallery (6) is provided with emergency vehicles of shuttle type (9), to allow for local access of personnel and the safe evacuation of people, in case of accident or fire inside the tunnel.

IPC 8 full level  
**E21D 9/14** (2006.01)

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

Citation (applicant)  
• EP 1191186 A1 20020327 - TOORENMAN LAMBERTUS ROELOF [NL]  
• NL 1013595 C1 20010518 - IR EVERT FREDERIK SIEMELINK [NL]  
• JP 2004270345 A 20040930 - RAILWAY TECHNICAL RES INST

Citation (search report)  
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• [A] CN 201412160 Y 20100224 - CHINA RAILWAY NO 4 SURVEY AND DESIGN GROUP CO LTD  
• [A] CN 200964554 Y 20071024 - SHANGHAI TUNNEL ENG RAILWAY [CN]  
• [A] DE 10249267 A1 20040513 - RICHTER HERBERT [DE], et al  
• [A] JP 2005245683 A 20050915 - OHBAYASHI CORP

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Designated contracting state (EPC)  
AL 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 RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
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