

Title (en)
CONCRETE SLEEPER SYSTEM

Publication
EP 0249574 B1 19910123 (DE)

Application
EP 87730062 A 19870606

Priority
DE 3619417 A 19860610

Abstract (en)
[origin: US4802623A] Modern D.C.-tractioned trains and track circuit signal systems as well as high load trains need a special track construction. A new concrete cross sleeper system is provided for high load and high velocity tracks as well as for urban rapid transit systems comprising rails and sleepers having center part, connected to bar shaped ends and having reinforcing means. On the bar shaped ends two rail seats for each rail are positioned having elastic, electrically non-conducting plastic pads. The rails are fastened onto the rail seat by special tension means clamping the foot of the rail and fixed into plugs in the sleepers. This feature allows a triple point fixing of the rail at each sleeper end. Tracks on asphalt pavement may be secured by anchor device of the general type as sold under the trademark NELSON. The new track construction decreases the intermittent load of the rail/sleeper system and avoids trouble in track circuit signal systems existing in normally used prestressed concrete sleepers (FIG. 1).

IPC 1-7
E01B 1/00; E01B 3/32; E01B 9/14; E01B 9/68

IPC 8 full level
E01B 3/28 (2006.01); **E01B 1/00** (2006.01); **E01B 3/32** (2006.01); **E01B 9/14** (2006.01); **E01B 9/68** (2006.01)

CPC (source: EP US)
E01B 3/32 (2013.01 - EP US); **E01B 9/14** (2013.01 - EP US); **E01B 9/68** (2013.01 - EP US); **E01B 9/681** (2013.01 - EP US)

Citation (examination)

- DE 2718665 A1 19781102 - KLOECKNER WERKE AG
- GB 168743 A 19210915 - OLINDO VALERI
- GB 2008176 A 19790531 - DUNLOP LTD
- DE 3521673 A1 19860522 - SALZGITTER PEINE STAHLWERKE [DE]
- FR 2545116 A1 19841102 - GETZNER CHEMIE GMBH & CO [DE]
- GB 535366 A 19410407 - RESILIENT PRODUCTS CORP
- FR 2378129 A1 19780818 - FRENZEL JUERGEN [DE]
- FR 2190594 A1 19740201 - DOW CHEMICAL CO [US]
- GB 1354299 A 19740605 - PORTEC INC
- DE 880596 C 19530622 - CONTINENTAL GUMMI WERKE AG
- DE 806012 C 19510611 - HUETTENWERKE RUHRORT MEIDERICH
- US 3088674 A 19630507 - MAYNIER LOUIS X H

Cited by
DE102009049411A1; DE102010035675A1; US9145647B2; WO9705331A1

Designated contracting state (EPC)
AT BE CH DE ES FR GB GR IT LI LU NL SE

DOCDB simple family (publication)
EP 0249574 A2 19871216; EP 0249574 A3 19881019; EP 0249574 B1 19910123; AT E60381 T1 19910215; AU 597379 B2 19900531; AU 7401987 A 19871217; DE 3619417 A1 19871217; DE 3767576 D1 19910228; ES 2020297 B3 19910801; GR 3001787 T3 19921123; JP S62296001 A 19871223; US 4802623 A 19890207; ZA 874033 B 19871204

DOCDB simple family (application)
EP 87730062 A 19870606; AT 87730062 T 19870606; AU 7401987 A 19870605; DE 3619417 A 19860610; DE 3767576 T 19870606; ES 87730062 T 19870606; GR 910400497 T 19910416; JP 14163787 A 19870608; US 6003987 A 19870609; ZA 874033 A 19870605