

Title (en)  
Concrete-free sleeper

Title (de)  
Betonlose Schwelle

Title (fr)  
Traverse sans béton

Publication  
**EP 1130162 A3 20030115 (DE)**

Application  
**EP 01104708 A 20010226**

Priority  
DE 10009506 A 20000229

Abstract (en)  
[origin: EP1130162A2] The sleeper (1) is mounted to a rail grid through rails (6). The grid is first aligned over a support plate (7) concreted at least partly into a track plate (14). A sleeper reinforcement (2) formed without concrete surround is provided with welded rail fixing plates (5). The sleeper reinforcement and rail fixing plate have spacer holders (3) arranged between them, where the spacer holders are formed as steel bars (4) or cases.

IPC 1-7  
**E01B 1/00**; **E01B 3/16**

IPC 8 full level  
**E01B 3/32** (2006.01); **E01B 29/00** (2006.01)

CPC (source: EP)  
**E01B 3/32** (2013.01); **E01B 29/005** (2013.01)

Citation (search report)

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AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

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