

Title (en)  
TELPHER LINE

Publication  
**EP 0384223 A3 19910320 (DE)**

Application  
**EP 90102454 A 19900208**

Priority  
DE 3905210 A 19890221

Abstract (en)  
[origin: US5092249A] The invention proposes an electric overhead trolley system in which a travelling gear (14) is provided with a motor-driven driving wheel (16) and at least one auxiliary wheel (30) interacting with an auxiliary track (28), at least in certain sections, which auxiliary wheel contributes in transmitting the drive force to a track (10) so that ascending and descending track portions can be run through with less problems.

IPC 1-7  
**B61C 13/04**

IPC 8 full level  
**B61C 13/04** (2006.01); **B61C 15/02** (2006.01)

CPC (source: EP US)  
**B61C 13/04** (2013.01 - EP US); **B61C 15/02** (2013.01 - EP US)

Citation (search report)  
• [YD] DE 474243 C 19290328 - CARL BENDER  
• [Y] FR 2291074 A1 19760611 - SIEMENS AG [DE]  
• [A] DE 1430964 A1 19681212 - DEMAG ZUG GMBH

Cited by  
US5666884A; AT405732B

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

DOCDB simple family (publication)  
**US 5092249 A 19920303**; AT E94484 T1 19931015; BR 9000790 A 19910122; CA 2010459 A1 19900821; CA 2010459 C 19941129; DE 3905210 A1 19900830; DE 3905210 C2 19901129; DE 3905210 C3 19950831; DE 59002682 D1 19931021; DE 8910633 U1 19891207; DE 8916171 U1 19950706; DK 0384223 T3 19940207; EP 0384223 A2 19900829; EP 0384223 A3 19910320; EP 0384223 B1 19930915; ES 2046547 T3 19940201; MX 173570 B 19940316

DOCDB simple family (application)  
**US 72984091 A 19910712**; AT 90102454 T 19900208; BR 9000790 A 19900220; CA 2010459 A 19900220; DE 3905210 A 19890221; DE 59002682 T 19900208; DE 8910633 U 19890221; DE 8916171 U 19890221; DK 90102454 T 19900208; EP 90102454 A 19900208; ES 90102454 T 19900208; MX 1953390 A 19900216