

Title (en)

Method of producing a train running plan.

Title (de)

Verfahren zum Erzeugen eines Zuglaufplanes.

Title (fr)

Méthode de production d'un plan de roulage pour train.

Publication

**EP 0467377 A2 19920122 (EN)**

Application

**EP 91112062 A 19910718**

Priority

- JP 5218791 A 19910318
- JP 18807590 A 19900718
- JP 33708090 A 19901130

Abstract (en)

When the train is running, the target speed ( $V_n$ ) of the train is set every small territory, a plurality of which are obtained by dividing the predetermined territory having a fixed limit speed ( $V_{max}$ ) thereinto, and the consumed energy ( $E$ ) and the running time ( $T$ ) of the train are obtained in such a way that after accelerating the train by the maximum accelerating force, or decelerating it by the maximum decelerating force, the train runs at the fixed speed in accordance with a target speed ( $V_n$ ) thus set. By carrying out such a processing repeatedly, the target speeds ( $V_n$ ) of all the small territories are set so that the train runs in the predetermined running time ( $T$ ) and the consumed energy ( $E$ ) becomes minimum. In the case where the consumed energy ( $E$ ) of the target speed ( $V_n$ ) when the limit speed ( $V_{max}$ ) is constant, and the target speed ( $V_n$ ) of one small territory are changed, the change ratio ( $\Delta E / \Delta T$ ) of the consumed energy ( $E$ ) of the target speed ( $V_n$ ) to the running time ( $T$ ) is obtained, and on the basis of the change ratio ( $\Delta E / \Delta T$ ) with respect to the consumed energy, the subsequent target speed ( $V_n$ ) where the consumed energy ( $E$ ) becomes minimum is obtained.

IPC 1-7

**B61L 3/00**; **B61L 27/00**

IPC 8 full level

**B61L 3/00** (2006.01); **B61L 27/00** (2006.01)

CPC (source: EP)

**B61L 15/0058** (2024.01); **B61L 27/14** (2022.01)

Cited by

CN104401370A; CN109606432A; CN113671947A; DE19935350A1; CN111527019A; CN114348067A; GB2416900A; US5602739A; EP0615891A1; US5487516A; EP0539885A3; DE19935351A1; CN104192176A; EP2292492A3; AU2008201906B2; AU2008201906C1; AU2008201906B9; FR2728856A1; EP0719690A3; CN102897193A; DE19935349A1; EP0755840A1; NL1000896C2; CN105452085A; US2016129926A1; EP3023314A4; CN112278015A; GB2405016A; GB2405016B; DE10147231A1; DE19935352A1; DE19935353A1; US9669851B2; US9834237B2; US9733625B2; US10137911B2; US10308265B2; US10569792B2; US6668217B1; WO0309742A1; WO9429827A1; WO2007124196A1; US7447571B2; US6665609B1; US6799096B1; US7822491B2; EP2735491B1; EP1470018B1

Designated contracting state (EPC)

DE FR

DOCDB simple family (publication)

**EP 0467377 A2 19920122**; **EP 0467377 A3 19930721**; **EP 0467377 B1 19970625**; DE 69126644 D1 19970731; DE 69126644 T2 19971218

DOCDB simple family (application)

**EP 91112062 A 19910718**; DE 69126644 T 19910718