

Title (en)

Decentralized interlocking device of routes in a route interlocking station.

Title (de)

Einrichtung zum dezentralen Stellen von Fahrstrassen in einem Spurplanstellwerk.

Title (fr)

Dispositif d'enclenchement décentralisé de voies dans une installation d'enclenchement de la voie ferrée.

Publication

EP 0105182 A2 19840411 (DE)

Application

EP 83108462 A 19830827

Priority

DE 3232308 A 19820831

Abstract (en)

1. A system for the decentralized setting of routes in a geographical interlocking station wherein the groups assigned to the individual route elements such as switches, signals and track sections (switch groups, signal groups, track groups) are equipped with control circuits which execute a control function in accordance with the setting function to be performed by the respective group and have geographical inputs and outputs connected to the control circuits of the respective adjacent groups in accordance with the geographical layout of the track system, characterized by the following features : a) groups usable as route end groups (entrance or exit groups), e.g. signal groups (S1,... S9) or track groups shown in the track plan as possible exit groups (Z1,..., Z3) which can form the beginning or end of a track route have control elements (pushbuttons) and/or command inputs which are permanently assigned to a direction of travel and via which the control circuits of the groups in question can be acted upon directly, b) operation of a control element of a route end group or a corresponding signal at any one of the command inputs of the route end group initiates the delivery to at least one adjacent group of a route-search data word (D1) typical of the direction of travel by the control circuit of the group, c) groups which have no control elements or command inputs or whose control elements are not operated on the one hand store a route-search data word received via a geographical input, together with an item of information marking this input, and on the other hand transfer the route-search data word to the adjacent groups through all outputs geographically opposite to this input, they execute a fixed setting programme if route-search data words from two route end groups have been received at oppositely directed inputs within a predetermined period of time beginning on reception of the route-search data word first received, d) route end groups execute a fixed setting programme if a control element is operated or a corresponding signal appears at a command input and a route-search data word has been received whose direction-of-travel type agrees with the direction of travel assigned to the control element or to the command input.

Abstract (de)

Die Erfindung betrifft eine Einrichtung zum dezentralen Stellen von Fahrstrassen in einem Spurplanstellwerk. Die den Fahrwegelementen zugeordneten Gruppen enthalten Steuerschaltungen, z. B. Mikrorechner, die entsprechend dem geographischen Aufbau der Gleisanlage verbunden sind. Um eine Fahrstrasse aufzufinden, werden von den Fahrstrassenendgruppen (Start- und Zielgruppe) Fahrwegsuch-Datenworte ausgegeben, die von Gruppe zu Gruppe entsprechend den bestehenden Gleisverbindungen weitergegeben und in den Gruppen für eine gewisse Zeit abgespeichert werden. Gruppen, die einer zu stellenden Fahrstrasse angehören, erkennen diese Tatsache daraus, dass Fahrwegsuch-Datenworte beider Fahrstrassenendgruppen aus verschiedenen Richtungen eintreffen. Andere Stellmassnahmen wie Flankenschutz, Stellen von Durchrutschwegen, Ausschluss von Umfahrwegen, Absicherung von Mittelweichen lassen sich ebenfalls durch besondere Datenworte und Auswertung unter Einbezug von deren Eingangsrichtung dezentral durchführen. Ebenso wird der Selbststellbetrieb, die Zugnummernmeldung und die Zuglenkung ohne besondere zentrale Einrichtung möglich.

IPC 1-7

B61L 21/00

IPC 8 full level

B61L 21/00 (2006.01); **B61L 21/04** (2006.01)

CPC (source: EP)

B61L 21/04 (2013.01)

Cited by

EP3323693A1; EP1288099A1; FR2739824A1; EP0773155A1; WO0002760A3; WO2006008233A1; WO03013936A1; WO2018091186A1

Designated contracting state (EPC)

AT CH LI SE

DOCDB simple family (publication)

EP 0105182 A2 19840411; EP 0105182 A3 19870304; EP 0105182 B1 19900418; AT E52062 T1 19900515; DE 3232308 A1 19840315; DE 3232308 C2 19841031; ES 525151 A0 19840516; ES 8404654 A1 19840516; IL 69421 A0 19831130; YU 177083 A 19860430; ZA 835847 B 19840425

DOCDB simple family (application)

EP 83108462 A 19830827; AT 83108462 T 19830827; DE 3232308 A 19820831; ES 525151 A 19830825; IL 6942183 A 19830803; YU 177083 A 19830830; ZA 835847 A 19830809