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(54) **Multi-level distributed information system for multi-train transport**

(57) The invention relates to information transfer systems in a multi-train transport and/or two-cabin train. The multi-level distributed information system for the multi-train transport comprises a system control equipment 1, a voice announcement and communication equipment 2, an equipment 3 to control a high-speed communication line, a high-speed communication line equipment 4, a voice announcement playback equipment 5, a «passenger-driver» and the «panic button» communication de-

vice 6, a controlled power supply unit 7, an equipment 8 of the low-speed communication line of the head carriage, an equipment 9 of the low-speed communication line of the hook-on carriage, a high-speed communication line 10, a low-speed communication line 11, a communication line 12 of control processors, a "cabin-cabin" and "carriage-cabin" communication line 13, a loud-speaking voice announcement line 14.

EP 2 591 973 A3

**PARTIAL EUROPEAN SEARCH REPORT**

Application Number

under Rule 62a and/or 63 of the European Patent Convention.
This report shall be considered, for the purposes of
subsequent proceedings, as the European search report

EP 12 18 5035

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	WO 2006/075767 A2 (MATSUSHITA ELECTRIC IND CO LTD [JP]; MORIMITSU KAZUYA; UBUKATA MAKOTO;) 20 July 2006 (2006-07-20) * page 5 - page 15; figure 1 *	1-14	INV. B61L15/00
A	EP 1 404 063 A2 (ENVITECH AUTOMATION INC [CA]) 31 March 2004 (2004-03-31) * paragraph [0004] - paragraph [0005]; figure 1 *	1-14	
A	GB 2 450 520 A (BOMBARDIER TRANSP GMBH [DE]) 31 December 2008 (2008-12-31) * page 1 - page 3; figure 1 *	1-14	
			TECHNICAL FIELDS SEARCHED (IPC)
			B61L

INCOMPLETE SEARCH

The Search Division considers that the present application, or one or more of its claims, does/do not comply with the EPC so that only a partial search (R.62a, 63) has been carried out.

Claims searched completely :

Claims searched incompletely :

Claims not searched :

Reason for the limitation of the search:

see sheet C

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Place of search	Date of completion of the search	Examiner
Munich	24 January 2017	Plützer, Stefan
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document		

EPO FORM 1503 03/02 (P04E07)



INCOMPLETE SEARCH SHEET C

Application Number

EP 12 18 5035

Claim(s) completely searchable:

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Claim(s) searched incompletely:

1-14

Reason for the limitation of the search:

1.

The present application does not meet the requirements of Article 84 since claim 1 is not clear for the following reasons:

1.1

Independent claim 1 attempts to define a "multi-level distributed information system" for a "multi-train transport" merely by listing some components, such as a high-speed communication equipment, an equipment to control a high-speed communication line, a system control equipment etc., without providing any information on the structural or functional interaction between said components. Also, neither the dependent claims, nor the description provide complete and unambiguous information on the structural or functional interaction between said components.

1.2

The following terms in claim 1 are relative terms without generally recognised meaning: High-speed communication equipment, high-speed communication line, low-speed communication line equipment and low-speed communication line.

2.

In the letter of reply to the invitation pursuant to Rule 63 (1) EPC, the applicant indicated the subject-matter to be searched by a set of claims 1 - 14 which differs from the set of claims on file by addition of the features

wherein the distributed configuration of low-speed communication line equipment and high-speed communication line equipment is capable of providing long-term operation of safety functions of the train in a "parking" condition

to claim 1, only.

However, this addition of features is not suitable to overcome the objections raised in the invitation pursuant to Rule 63 (1) EPC, since this addition obviously does not clarify the structural or functional interaction between the components of the system, quite the contrary, the relative term "long-term operation", the term "parking" in quotation marks and the not introduced expressions "safety functions" and "the distributed configuration" introduce further doubt as to the nature of the subject-matter for which protection is sought.

3.

The search was based on the set of claims as originally filed interpreted in the light of the explanations given in the letter of



**INCOMPLETE SEARCH
SHEET C**

Application Number
EP 12 18 5035

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reply.

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 12 18 5035

5 This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

24-01-2017

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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		US 2006170285 A1	03-08-2006
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		WO 2009000544 A1	31-12-2008