

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference P14846PC00	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/EP2018/075787	International filing date (<i>day/month/year</i>) 24 September 2018 (24-09-2018)	(Earliest) Priority Date (<i>day/month/year</i>) 25 September 2017 (25-09-2017)
Applicant STADLER RAIL VALENCIA S.A.U.		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 5 sheets.

☒

It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of:

☒

the international application in the language in which it was filed

☐

a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b))

b. ☐

This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6**bis**(a)).

c. ☐

With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐

Certain claims were found unsearchable (See Box No. II)

3. ☐

Unity of invention is lacking (see Box No III)

4. With regard to the **title**,

☒

the text is approved as submitted by the applicant

☐

the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☐

the text is approved as submitted by the applicant

☒

the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 1

☒

as suggested by the applicant

☐

as selected by this Authority, because the applicant failed to suggest a figure

☐

as selected by this Authority, because this figure better characterizes the invention

b. ☐

none of the figures is to be published with the abstract

Box No. IV Text of the abstract (Continuation of item 5 of the first sheet)

A ballast system (5) adapted to modify the mass of a railway vehicle (10), comprising at least one ballast element (4) and at least one ballast receptacle (1) adapted to house each at least one ballast element (4), wherein each at least one ballast element (4) is removable, and the ballast system (5) further comprises at least a guide means (2) adapted to allow introducing each at least one ballast element (4) in or removing it from the ballast receptacle (1), and wherein the at least a guide means (2) are one or more guide rails.

INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2018/075787

A. CLASSIFICATION OF SUBJECT MATTER
INV. B61C15/04 B61F1/06
ADD. B61F3/04 B61C15/06

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
B61C B61F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JP 2006 137238 A (NIPPON SHARYO SEIZO KK) 1 June 2006 (2006-06-01) abstract; figures 1-4 -----	1-13
A	US 2 409 730 A (BLOMBERG MARTIN P ET AL) 22 October 1946 (1946-10-22) column 5, line 67 - column 6, line 27; figures 1-16 -----	1-13
A	WO 2009/020700 A1 (GEN ELECTRIC [US]; KUMAR AJITH KUTTANNAIR [US]; WORDEN BRET DWAYNE [US] 12 February 2009 (2009-02-12) claims 1,10; figures 1A,1B,2 ----- -/-	1-13



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

30 November 2018

Date of mailing of the international search report

14/12/2018

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INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2018/075787

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 2009/020699 A1 (GEN ELECTRIC [US]; KUMAR AJITH KUTTANNAIR [US]; WORDEN BRET DWAYNE [US] 12 February 2009 (2009-02-12) page 14, paragraph [0032] - page 15, paragraph [0034]; claims 1,11; figures 1A,1B,2,3,4 -----	1-13
A	CN 104 192 158 A (CSR ZHUZHOU ELEC LOCO RES INST) 10 December 2014 (2014-12-10) figures 1-2 -----	1-13
A	US 2 942 558 A (WILLIAM SPEICHER) 28 June 1960 (1960-06-28) claims 1-3; figures 1-4 -----	1-13

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/EP2018/075787

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP 2006137238 A	01-06-2006	JP 4444796 B2 JP 2006137238 A	31-03-2010 01-06-2006
US 2409730 A	22-10-1946	NONE	
WO 2009020700 A1	12-02-2009	US 2009031916 A1 WO 2009020700 A1	05-02-2009 12-02-2009
WO 2009020699 A1	12-02-2009	US 2009031917 A1 WO 2009020699 A1	05-02-2009 12-02-2009
CN 104192158 A	10-12-2014	NONE	
US 2942558 A	28-06-1960	NONE	