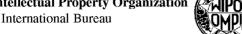
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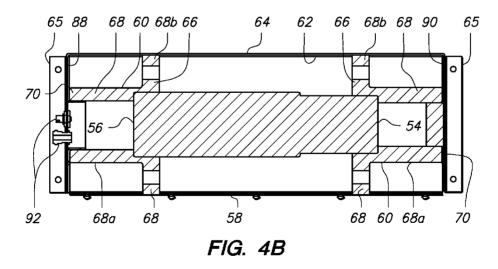
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#### **Published:**

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

[Continued on next page]

(54) Title: RADIATION DETECTION UNIT FOR MOUNTING A RADIATION SENSOR TO A CONTAINER CRANE



(57) Abstract: A radiation detection unit includes a housing and isolators unitarily constructed from mechanical energy absorbent material. The housing is attached rigidly to a structure and its major dimensions are selected to exceed corresponding major dimensions of a radiation sensor. The isolators have a body portion and projections extending outwardly therefrom. The body portion engages the radiation detection sensor proximal a respective one of its radiation collection end and its interface end. The projections are disposed intermediate the body portion and an interior surface of the housing and have a distal end contacting the interior surface to carry the radiation sensor in a three dimensional spaced apart relationship to the interior surface. The length of the projections is selected to attenuate substantially mechanical energy that is induced at the distal end and propagates along the length of each projection prior to the propagated energy being incident upon the body portion.



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### INTERNATIONAL SEARCH REPORT

International application No PCT/US2007/085673

A. CLASSIFICATION OF SUBJECT MATTER INV. G01V5/00

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#### B. FIELDS SEARCHED

 $\begin{array}{ll} \mbox{Minimum documentation searched (classification system followed by classification symbols)} \\ \mbox{G01V} & \mbox{G01T} \end{array}$ 

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 practical, search terms used)

EPO-Internal, WPI Data, INSPEC, COMPENDEX

ategory*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	
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Further documents are listed in the continuation of Box C.	X 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 document 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	<ul> <li>"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</li> <li>"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</li> <li>"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.</li> <li>"&amp;" document member of the same patent family</li> </ul>
Date of the actual completion of the international search	Date of mailing of the international search report
5 February 2009	13/05/2009
Name and mailing address of the ISA/	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Eberle, Katja

### INTERNATIONAL SEARCH REPORT

International application No
PCT/US2007/085673

(Continua	tion). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to	claim No.
4	US 6 998 617 B2 (D EMILIO CARL [US] ET AL) 14 February 2006 (2006-02-14) column 5, line 42 - column 6, line 67; figures column 9, line 58 - column 11, line 42	1,2	?1
1	US 2006/261942 A1 (FRANK DAVID L [US]) 23 November 2006 (2006-11-23) figures	1,2	21
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International application No. PCT/US2007/085673

## INTERNATIONAL SEARCH REPORT

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)
This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:
1. Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
Claims Nos.:     because they relate to parts of the international application that do not comply with the prescribed requirements to such
an extent that no meaningful international search can be carried out, specifically:
3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).
Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)
This International Searching Authority found multiple inventions in this international application, as follows:
see additional sheet
As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
3. As only some of the required additional search fees were timely paid by the applicant, this international search reportcovers only those claims for which fees were paid, specifically claims Nos.:
4. V No required additional search fees were timely paid by the applicant. Consequently, this international search report is
restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
1-40
Remark on Protest  The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
No protest accompanied the payment of additional search fees.

### FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-40

A radiation detection unit wherein at least one of the projections of each of the isolators extend non-interferingly outwardly along a major dimension in opposition to each other wherein one of said projections of each of the isolators and the radiation sensor when engaged by the body portion of each isolator is dimensionally commensurate with the first one of the major dimensions, remaining projections being normal to the first one of the major dimensions

2. claims: 41-51

A radiation detection unit with a pair of inserts

### INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/US2007/085673

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