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**Datasheet for the decision  
of 18 October 2007**

**Case Number:** T 1058/04 - 3.2.07

**Application Number:** 98931211.1

**Publication Number:** 1009662

**IPC:** B65B 61/22

**Language of the proceedings:** EN

**Title of invention:**

Cushioning conversion system and method

**Applicant:**

RANPAK CORP.

**Opponent:**

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**Headword:**

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**Relevant legal provisions:**

EPC Art. 56, 111(1), 113(1)

RPBA Art. 11

**Keyword:**

"Breach of the right to be heard (no)"

"Remittal to the first instance (no)"

"Inventive step (all requests: no)"

**Decisions cited:**

T 0641/00

**Catchword:**

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Case Number: T 1058/04 - 3.2.07

**D E C I S I O N**  
of the Technical Board of Appeal 3.2.07  
of 18 October 2007

**Appellant:** RANPAK CORP.  
7990 Auburn Road  
Concord Township  
Ohio 44077-972 (US)

**Representative:** Powell, Timothy John  
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**Decision under appeal:** Decision of the Examining Division of the  
European Patent Office posted 25 February 2004  
refusing European application No. 98931211.1  
pursuant to Article 97(1) EPC.

**Composition of the Board:**

**Chairman:** H. Meinders  
**Members:** K. Poalas  
I. Beckedorf

## Summary of Facts and Submissions

I. The appellant (applicant) lodged an appeal against the decision of the Examining Division refusing European patent application 98 931 211.1.

II. In its decision the Examining Division held that claim 1 of the main, first and second auxiliary requests does not comply with Rule 86(4) EPC and that the subject-matter of claim 1 of the third and fourth auxiliary requests and of the request filed with the appellant's letter dated 26 August 2003 (designated by the Board as "fifth auxiliary request") does not involve an inventive step. For the wording of claim 1 of these requests, see point VI below.

The prior art documents of the file pertinent for the present decision are the following:

D1: WO-95/ 13 914 A;

D4: Advanced Logistic Systems, Inc., Technical Abstract, "OPTIPACK<sup>TM</sup>, Computer Aided Loader, 1996; and

D6: US 5 311 438 A.

III. In its notice of appeal the appellant requested that

- i) the decision was cancelled in its entirety to the extent that the appellant was adversely affected by it,
- ii) the application is allowed, and
- iii) oral proceedings under article 116 EPC are held in the event that the Board of Appeal intends not to allow the appeal.

In its statement of grounds of appeal dated 25 June 2004 the appellant requested the remittal of the "Main

and First to Third Auxiliary Requests to the Examining Division for examination of their novelty and inventiveness" (emphasis added by the Board), see paragraph 2.29.

IV. With its communication dated 4 July 2007 the Board summoned the appellant to oral proceedings on 18 October 2007, giving a.o. its preliminary negative opinion on the issue of inventive step of the subject-matter of claim 1 of all requests.

V. With fax of 17 September 2007 the appellant filed four further sets of claims identified as the 6<sup>th</sup> to 9<sup>th</sup> auxiliary request respectively and requested that the Board considers said claims sets "in order **before** considering any of the requests currently on file".

With fax of 16 October 2007 the appellant informed the Board that it would not be represented at the oral proceedings scheduled for 18 October 2007. It requested the decision to be made based on the papers currently on file.

Oral proceedings before the Board took place on 18 October 2007, in the absence of the appellant.

VI. The independent claims 1 of the different requests read as follows:

*Main request, 1<sup>st</sup> auxiliary request*

"A packaging system, comprising:  
a source (12) of packaging material; and  
a packaging system controller (16, 592, 901) for

providing packaging instructions related to a part to be packaged and instructing the source of packaging material to provide the packaging material, the system functions comprising at least one of inventory consumption maintenance, automated inventory ordering, productivity measurement and analysis, consignment billing and production planning notification".

*2<sup>nd</sup> auxiliary request*

"A packaging system, comprising:  
a source (12) of packaging material;  
a packaging system controller (16, 592, 901) for providing packaging instructions related to a part to be packaged and instructing the source of packaging material to provide the packaging material; and  
an inventory management system associated with the packaging system controller, wherein the inventory management system monitors a consumption of packaging materials and provides an indication if any of the packaging materials fall below a pre-determined level, wherein the packaging materials includes at least one of packaging containers, cushioning material, and packaging tape".

*3<sup>rd</sup> auxiliary request, 4<sup>th</sup> auxiliary request*

"A packaging system comprising:  
a packaging material generator (12);  
an output peripheral (18) for providing packaging instructions;  
a packaging system controller (16, 592, 901) for retrieving predetermined packaging instructions related

to at least one part to be packaged from a memory associated with the packaging system controller, instructing the packaging material generator (12) to produce packaging material, and providing the packaging instructions via the output peripheral; and an input peripheral for providing a part identification for the part to be packaged, the packaging system controller (16, 592, 901) being operable to communicate desired system functions to the packaging material generator and the output peripheral in response to the retrieved packaging instructions; and the system functions comprising at least one of inventory consumption maintenance, automated inventory ordering, productivity measurement and analysis, consignment billing and production planning notification".

*5<sup>th</sup> auxiliary request*

"A method of determining and displaying a set of packaging instructions for packaging at least one part, comprising the steps of:

- a. identifying the at least one part to be packaged;
- b. operating a programmed device so as to provide a sequence of packaging instructions associated with the at least one part to be packaged; and
- c. displaying the sequence of packaging instructions by means of a display device for review by a packer; characterized in that
- d. the packaging instructions include at least one cushioning technique instruction related to the at least one part, the cushioning technique instruction including at least one of (a) a direction as to the

manner of placement of one or more units of dunnage material in a container prior to placement of at least one part in the container, and (b) an illustration showing the manner of placement of one or more units of dunnage material in a container;

e. the packaging instructions further include at least one machine instruction to a dunnage material generator or dispenser to provide one or more units of dunnage material;

f. the programmed device is operated to retrieve the packaging instructions from a memory device containing the said information and to provide to the display device the at least one cushioning technique instruction for review by a packer, and the at least one machine instruction to the dunnage material generator or dispenser to provide the one or more units of dunnage material in coordinated sequence with the display of the at least one cushioning technique instruction".

*6<sup>th</sup> auxiliary request*

"A packaging system, comprising:  
a packaging material dispenser (12);  
a packaging system controller (16, 592, 901) for providing packaging instructions related to a part to be packaged and instructing the packaging material dispenser to dispense the packaging material; and  
an inventory monitoring system associated with the packaging system controller, wherein the inventory monitoring system monitors packaging materials consumed in the packaging of parts".

*7<sup>th</sup> auxiliary request*

"A packaging system, comprising:  
a packaging material dispenser (12);  
a packaging system controller (16, 592, 901) for providing packaging instructions related to a part to be packaged and instructing the packaging material dispenser to dispense the packaging material; and  
an inventory monitoring system associated with the packaging system controller,  
wherein the inventory monitoring system monitors packaging materials consumed in the packaging of parts, and the packaging system controller provides packaging instructions related to a part to be packaged through use of an input peripheral".

*8<sup>th</sup> auxiliary request*

"A packaging system, comprising:  
a packaging material dispenser (12);  
a packaging system controller (16, 592, 901) for providing packaging instructions related to a part to be packaged and instructing the packaging material dispenser to dispense the packaging material; and  
an inventory monitoring system associated with the packaging system controller,  
wherein the inventory monitoring system monitors packaging materials consumed in the packaging of parts;  
the system further comprising an input peripheral coupled to the packaging system controller for providing data to be used in providing packaging instructions related to a part to be packaged".



*9<sup>th</sup> auxiliary request*

"A packaging system, comprising:  
a packaging material dispenser (12);  
a packaging system controller (16, 592, 901) for providing packaging instructions related to a part to be packaged and instructing the packaging material dispenser to dispense the packaging material; and  
an inventory monitoring system associated with the packaging system controller, wherein the inventory monitoring system monitors packaging materials consumed in the packaging of parts;  
the packaging system further comprising communication means coupled to the packaging system controller for automatically generating a re-order request for one or more packaging materials if the one or more packaging materials are determined to have fallen below a pre-determined threshold".

VII. The appellant argued essentially as follows:

*Main and 1<sup>st</sup> to 4<sup>th</sup> auxiliary requests*

The apparatus of D1 is not disclosed as being part of a network or other integrated system.

D4, on the other hand, specifies essentially a programmed computer that is capable of (inter alia) determining "information to quote accurate shipping a freight charges (sic)".

There is no suggestion either in D1 or in D4 of automated inventory ordering, productivity measurement and analysis, consignment billing or the retrieval of

predetermined information about an item to be packaged, from a memory associated with the packaging system controller.

These system functions are not the same as the shipping and freight charges identified in D4. On the contrary, the notion of shipping and freight charges in D4 is entirely economic, and non-technical.

Therefore the skilled worker starting from the disclosure of D1 would not look to D4 for any information about "system functions".

*5<sup>th</sup> auxiliary request*

The Examining Division has identified as the technical problem solved by the method of claim 1 that of further automating the machine of D1, based on an assumption that the operator of such a machine has in his possession eg. pre-printed instructions relating to the packaging of particular items.

The Examining Division cited certain passages from D4, which allegedly provide the solution as claimed in claim 1.

Claim 1 is characterised in part by the step of retrieving packaging instructions relating to an item or part to be packaged.

In the one but last sentence on the last page of D4 it is stated that: "By running typical orders with a selection of different cartons, improving in volume fill, material costs and labour costs can be achieved".

In other words, if D4 discloses anything at all about the generation of packaging instructions, it does so by way of a trial and error process.

The operator (presumably) must make an independent, manual record of the results of this process. No information retrieval is disclosed. Further, in D4's method only information regarding a carton is used, not relating to the part to be packaged.

It follows therefore that the skilled worker on reading D4 would not derive the features of claim 1.

Thus the combination of D4 and D1 would not solve the technical problem specified by the Examining Division. On the contrary, following the instructions in D4 at best the skilled worker would create a sheet of paper on which he had written some notes about the carton options derived from the trial and error process in D4.

*6<sup>th</sup> to 9<sup>th</sup> auxiliary requests*

In respect of these requests the appellant relied on its statement of grounds of appeal.

**Reasons for the decision**

1. *Procedural matters - Remittal to the first instance*

1.1 Although the appellant with its fax of 17 September 2007 requested that the 6<sup>th</sup> to 9<sup>th</sup> auxiliary requests should be considered by the Board "in order before

considering any other request on file", the Board taking into consideration the outcome of the present case, see below under "Order", considers it more appropriate to treat in the reasons for its decision the appellant's requests according to their numerical order.

- 1.2 Given that in the present case six different requests of the appellant have already been examined by the examining division, that the appellant in its statement of grounds of appeal presented arguments directed to the inventive step issues with respect to all requests then present in the file, see paragraphs 2.28 to 4.17 of the statement of grounds of appeal, that in the annex to the summons to oral proceedings the Board expressed its preliminary opinion about inventive step regarding all these requests, that the appellant has had the opportunity to comment on this preliminary opinion of the Board and that the appellant has decided to not attend the oral proceedings, the Board exercises its discretion according to Article 111(1) EPC, second sentence, to examine itself the issue of inventive step of all requests in the present application and not to remit the case to the Examining Division for further prosecution.

With respect to the 6<sup>th</sup> to 9<sup>th</sup> auxiliary request the right to be heard (Article 113(1) EPC) has been granted to the appellant as the decisive issue of inventive step has been discussed in the annex to the summons in respect of the main and first to fifth auxiliary request and the appellant did not dispute them other than by referring to its arguments already submitted in writing. The arguments brought forward by the Board

against these requests apply equally to the sixth to ninth auxiliary requests, as will be seen below.

In this respect the Board also refers to Article 11 RPBA, according to which a Board shall not be obliged to delay any step in the proceedings, including its decision, by reason only of the absence at the oral proceedings of any party duly summoned, who may be treated as relying only on its written case.

- 1.3 In view of the outcome of the Board's examination of inventive step in the present application, the Examining Division's decision, in so far as directed to Rule 86(4) EPC and objected to by the appellant, needs no further consideration in the present decision.

2. *Main request and 1<sup>st</sup> auxiliary request - Claim 1*

- 2.1 D1 describes a packaging system 10 comprising a source 12 of packaging material 14 and a packaging system controller 20 for providing packaging instructions related to a part to be packaged and instructing the source of packaging material to provide the packaging material. The system of D1 detects the type of box and, "based on the packaging needs of a certain box" controls the assembly to produce the required number of pads of appropriate length (page 11, lines 20 to 23).

As indicated in the preliminary opinion of the Board the "packaging instruction" can be seen to be: "how many and how long should the pads be for this item". The pad cutter of D1 clearly provides the pads in the required lengths and number.

The subject-matter of claim 1 differs from the packaging system known from D1 by "at least one of the system functions of inventory consumption maintenance, automated inventory ordering, productivity measurement and analysis, consignment billing and production planning notification".

The Board considers that the function of "inventory consumption maintenance" need not be more than a simple automatic warning signal that the stock of packaging material has run out or is running out. The Board finds that the provision in the system of D1 of such an automatic warning signal is obvious to the skilled person.

Taking into consideration also the teaching of D6, see column 70, line 30 to column 79, line 26, describing automated inventory, shipping or production planning in a manufacturing process, the Board considers that each of the other distinguishing functions of automated inventory ordering, the provision of productivity measurement and analysis, consignment billing and production planning notification is also obvious to the skilled person seeking to improve the functions of the system of D1.

In any case the Board considers the above mentioned system functions to be non-technical features, in that they do not solve a technical problem but an operational, management problem and that they therefore can be left out of consideration when assessing inventive step, see T 641/00, OJ EPO 2003, 352.

2.2 The appellant argued that the apparatus of D1 is not disclosed as being part of a network or other integrated system and therefore D1 does not disclose a packaging system. It further argued that the specific discussion of the process controller 20 of D1 is limited to the cited passage of page 11 and a more generalised discussion of the possible programming of the product controller 20 exists in the text from line 12 of page 7 to line 4 of page 8 of D1. According to these passages the process controller 20 determines the packaging needs of a certain box but it does not provide packaging instructions related to a part to be packaged.

The Board cannot follow the appellant's argument for the following reasons:

Firstly, the system (packaging program) 10 of D1 includes a cushioning conversion machine 12, a transitional slide 16 for temporary storage of the pads and a process controller 20 for controlling the cushioning conversion machine defines a packaging system. It is thus an integrated system.

Secondly, in lines 20 and 23 of page 11 of D1 it is stated that the "process controller 20 automatically determines the packaging needs of a certain box 18, i.e. by a bar code scanner 25 ...". The needs of a box 18 concerning the cushioning material are defined not only by the dimensions of the box but also by the part to be packaged. Depending on the kind of article to be packaged, ie. if it is small or large, unbreakable or fragile, the packaging needs of each box will vary, see also the paragraph bridging pages 4 and 5 of D1. It is

obvious that information directed to only the box itself and its dimensions without any reference to the part to be packaged can not be sufficient for defining the amount and the dimensions of the pads needed. Accordingly, for each box the bar code scanner 25 in fact transmits to the process controller 20 information about the packaging needs of the box always in relation with the corresponding part to be packaged. Subsequently the process controller 20 provides packaging instructions for the cushioning machine, said instructions being related to the box as well as to the part to be packaged into the box.

Consequently, the process controller 20 of D1 is a packaging system controller for providing packaging instructions related to a part to be packaged and instructing the source of packaging material to provide the packaging material.

In view of the above, the system of claim 1 according to the main and 1<sup>st</sup> auxiliary requests does not meet the requirement of inventive step (Article 56 EPC).

3. *2<sup>nd</sup> auxiliary request - Claim 1*

For the same reasons as stated under point 2 above D1 describes a packaging system 10 comprising a source 12 of packaging material 14 and a packaging system controller 20 for providing packaging instructions related to a part to be packaged and instructing the source of packaging material to provide the packaging material in the form of cushioning pads 14.



The subject-matter of claim 1 differs from the packaging system known from D1 by an inventory management system monitoring a consumption of packaging materials and providing an indication if any of the packaging materials fall below a pre-determined level.

As explained in its preliminary opinion, the Board considers that the claimed "inventory management system" need not be more than a simple automatic warning signal that the stock of packaging material has run out or is running out. The Board finds that the provision of such an automatic warning signal in the system of D1 is obvious to the skilled person, for the same reasons given above, point 2.1.

Consequently, the system of claim 1 according to the 2<sup>nd</sup> auxiliary request does not meet the requirement of inventive step (Article 56 EPC).

4. *3<sup>rd</sup> and 4<sup>th</sup> auxiliary requests - Claim 1*

As explained by the Board's preliminary opinion, D1 discloses (in the wording of claim 1) a packaging system 10 comprising a packaging material generator 12; an output peripheral for providing packaging instructions (line "activate/deactivate signals" in figure 1); a packaging system controller 20 for retrieving predetermined packaging instructions related to at least one part to be packaged from a memory associated with the packaging system controller, instructing the packaging material generator 12 to produce packaging material, and providing the packaging instructions via the output peripheral; and

an input peripheral (line connecting the bar code scanner 25 with the controller 20 in figure 1) for providing a part identification for the part to be packaged, the packaging system controller 20 being operable to communicate desired system functions to the packaging material generator and the output peripheral in response to the retrieved packaging instructions.

It is evident that, to function properly, on the one hand the controller 20 is connected to a memory having stored therein packaging information for the different types of boxes and parts to be packaged, see page 11, lines 20 to 23 of D1, and that on the other hand the bar code scanner 25 provides the controller not only with data of the box itself but also by implication, with data concerning the part to be packaged otherwise the controller cannot define the appropriate quantity and lengths of the pads needed for each box, see also point 2.2 above.

The subject-matter of claim 1 differs from the packaging system known from D1 in that the system functions comprise at least one of inventory consumption maintenance, automated inventory ordering, productivity measurement and analysis, consignment billing and production planning notification.

These system functions are obvious to the skilled person or do not solve a technical problem as mentioned under point 2.1 above.

Therefore, the subject-matter of claim 1 does not involve an inventive step (Article 56 EPC).

5. *5<sup>th</sup> auxiliary request - Claim 1*

5.1 The decision under appeal found the subject-matter of this claim 1 to lack inventive step in view of D1, adopting the teaching of D4. The Board in its preliminary opinion annexed to the summons to oral proceedings, had indicated its agreement with the reasoning of the Examining Division. In the impugned decision the Examining Division considered that the method of claim 1 differed from the one disclosed in D1 in that the process controller is operated so as to provide a sequence of packaging instructions associated with the part to be packaged, said packaging instructions including at least one cushioning technique instruction related to the part, which has been retrieved from a memory device. Further, in the method of claim 1 the cushioning technique instruction is provided to a display device for review by a packer and there is at least one machine instruction to the dunnage material generator or dispenser to provide the one or more units of dunnage material in coordinated sequence with a display of the at least one cushioning technique instruction.

The Examining Division considered, however, that these method steps were clearly suggested by D4, in particular in pages 1 to 3, 11 and 15. Given the fact that D4 also mentioned the insertion of dunnage material ("filler") into the packages, the application of the teaching of D4 to a known method as in D1, in

which the dunnage material has to be placed in a certain direction, did not involve inventive step.

5.2 The Board cannot see fault in this, albeit brief, reasoning.

The effect of these features is that the method known from D1 is further perfected in that the packer no longer needs to know by heart or by an instruction of another person, how to pack items depending on their requirements and with different lengths of dunnage material, into a packaging box, but is provided with detailed packaging instructions including a cushioning technique.

The objective problem in respect of D1 is the provision of more automation in the method of D1, to optimise the packaging and the use of cushioning material.

D4, relating to the same technical field of packaging items in boxes employing cushioning material, provides the skilled person starting from the method of D1 with the necessary teaching.

Firstly, D4 provides the packer with a sequence of packaging instructions associated with the part(s) to be packaged, in the form of a 3-dimensional diagram (page 1, paragraphs 5 and 7 and page 11) with the location and orientation of the parts in the carton and a pick list with the products listed in their packing order. The carton information is recorded in a "carton definition" in a database (see page 5, first table and page 9), the product information (size, stacking restrictions, loading orientation) is also stored in

the product database (see page 4 "Item database" and page 10 "SKU information"), contrary to what the appellant argues. Both are retrieved from the memory, as claimed, to result in the packaging instruction.

The Board considers that it is obvious for the skilled person, starting from the method of D1, to include this system of producing packaging instructions so as to help the packer in making optimal use of the space of a packaging box.

As D1 concerns further the method of producing cushioning material in appropriate length and number, it can be expected of the person skilled in the art to further adapt the packaging instruction provided in the method of D4 to include also the cushioning instruction, ie. where and how to put which length of cushioning material into the box, depending on the parts to be packed, their locations and their cushioning requirements. D4 contains pointers to that aspect of packaging, see page 2, points 7 and 10; page 3, point 1. In doing this the skilled person will adapt the existing cushioning material instructions, available in the system of D1, to provide the required lengths of material in the sequence they are required, just as the list of products in D4 provides the sequence of their packaging. In doing this, the skilled person will thus arrive at the steps of the method claimed in claim 1.

- 5.3 The appellant argued that the automated functions known from D4 are functions directed to "shipping and freight charges" which are entirely of an economic nature and totally different from the functions claimed in claim 1. Accordingly, the skilled person would have no

motivation to combine the teachings of D1 and D4, and even if he would do so, that such a combination would not lead to the subject-matter of claim 1.

The Board is of the different opinion. The method of D4 involves not only the automated functions mentioned by the appellant, but also automation of the choice of packaging box depending on the part(s) to be packaged and automatically producing a visual packaging instruction with a sequence list of the parts to be packaged. This is anything but a trial-and-error process, as argued by the appellant.

In view of the above, the subject-matter of claim 1 does not involve an inventive step (Article 56 EPC).

6. *6<sup>th</sup> auxiliary request - Claim 1*

The subject-matter of claim 1 according to the sixth auxiliary request differs from the subject-matter of claim 1 according to the second auxiliary request in that the expression "a source of packaging material" is replaced by the expression "a packaging material dispenser", the expression "monitors a consumption of packaging materials" is replaced by the expression "monitors packaging materials consumed in the packaging of parts" and in that the features: "and provides an indication ... and packaging tape" have been deleted.

Given that the cushioning conversion machine 12 in the system of D1 is a packaging material dispenser, that the expression "monitors packaging materials consumed in the packaging of parts" is equivalent to the expression "monitors a consumption of packaging

materials" used in claim 1 of the second auxiliary request and that the last part of claim 1 according to this request has been deleted, the arguments presented under point 2 above apply *mutatis mutandis* to claim 1 of the sixth auxiliary request.

Claim 1 therefore does not involve an inventive step (Article 56 EPC).

7. *7<sup>th</sup>, 8<sup>th</sup> and 9<sup>th</sup> auxiliary requests*

Given that the sets of claims according to the seventh to ninth auxiliary requests were filed without any reasoning why these claims overcome the objection of lack of inventive step raised in the impugned decision, the Board needs only to examine whether the objections brought forward against the other requests do not, *prima facie*, apply to these requests.

This is, however, not the case. The additional features of claim 1 of each of the seventh and eighth auxiliary requests over claim 1 of the sixth auxiliary request, ie. "the packaging system controller provides packaging instructions related to a part to be packaged through use of an input peripheral" and "the system further comprising an input peripheral coupled to the packaging system controller for providing data to be used in providing packaging instructions related to a part to be packaged", have been already treated under point 3 above for the third auxiliary request. The additional features of claim 1 of the ninth auxiliary request over claim 1 of the sixth auxiliary request, ie. "the packaging system further comprising communication means coupled to the packaging system controller for

automatically generating a re-order request for one or more packaging materials if the one or more packaging materials are determined to have fallen below a pre-determined threshold", has been already treated under point 2 above for the second auxiliary request. As it is stated under points 2 and 3 above none of these additional features contributes to inventive step.

Accordingly, the subject-matter of claim 1 of each of the seventh to ninth auxiliary request does not involve an inventive step (Article 56 EPC).

## **Order**

### **For these reasons it is decided that:**

The appeal is dismissed.

The Registrar:

The Chairman:

G. Nachtigall

H. Meinders