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**Datasheet for the decision  
of 16 May 2013**

**Case Number:** T 2298/09 - 3.2.07

**Application Number:** 04729409.5

**Publication Number:** 1625088

**IPC:** B65G 47/34

**Language of the proceedings:** EN

**Title of invention:**

Apparatus for a sorting system and method for sorting

**Patent Proprietor:**

Linco Food Systems A/S

**Opponent:**

STORK PMT B.V.

**Headword:**

-

**Relevant legal provisions:**

EPC Art. 56, 101(3) (b), 123(2)

**Keyword:**

"Admissibility of main request filed during oral proceedings -  
no, inadmissible extension, features, even without clear  
meaning, cannot be ignored (point 2.1)"

**Decisions cited:**

-

**Catchword:**

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Case Number: T 2298/09 - 3.2.07

**DECISION**  
of the Technical Board of Appeal 3.2.07  
of 16 May 2013

**Appellant:**  
(Opponent)

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**Decision under appeal:**

**Interlocutory decision of the Opposition  
Division of the European Patent Office posted  
2 October 2009 concerning maintenance of  
European patent No. 1625088 in amended form.**

**Composition of the Board:**

**Chairman:** H. Meinders  
**Members:** H.-P. Felgenhauer  
E. Kossonakou

## Summary of Facts and Submissions

- I. The opponent (appellant) filed an appeal against the decision of the opposition division maintaining European patent No. 1 625 088 as amended.

The appellant requests the impugned decision to be set aside and the patent to be revoked.

The respondent (proprietor) requests the decision under appeal to be set aside and the patent to be maintained based on the set of claims according to the main request filed during the oral proceedings before the Board.

- II. Claim 1 according to this main request reads as follows.

"An apparatus (1) for a sorting system comprising an activating member (2), a fastening bracket (3), and a discharge arm (4) which at an end part (5) is pivotally connected with the fastening bracket (3) at a side (6) of a conveyor (7), where said discharge arm (4) by means of said activating member (2) is adapted for being swung between a passive position (9) approximately parallel to said side (6) of the conveyor (7) and a number of active angular positions (8) in relation to the conveying direction (A) of the conveyor (7), the activating member (2) being constituted by an electrically driven stepping motor or servomotor having a control unit being adapted for determining a pattern of motion and/or speed profile of the discharge arm (4), and that said control unit is adapted for receiving at least one control signal from a number of sensors (16) being adapted for determining the lateral and

longitudinal position of an item (11) on the conveyor (7), and which are operatively connected with the activating member (2), wherein said control unit is pre-programmed and adapted for utilizing said control signal from the sensors (16) for determining a pattern of motion and/or a speed profiler (correctly: speed profile) of the discharge arm (4) for causing the discharge arm (4) to lead the items (11) selectively to a predetermined discharge position among a number of discharge positions (B, C, D) along said side (6) of the conveyor (7)".

III. According to the impugned decision the patent has been maintained in amended form based on a claim 1 comprising the features of claims 1 and 2 of the patent as granted.

IV. The submissions of the appellant which are relevant for the present decision can be summarised as follows:

(a) Claim 1 of the main request comprises additional features taken from various portions of the description. Since these portions of the description are not linked to the extent that they form in combination the basis for the subject-matter of amended claim 1 this claim consequently does not satisfy the requirement of Article 123(2) EPC.

(b) This holds in particular true concerning the features that the control unit is pre-programmed and adapted for utilizing the control signal from the sensors for determining a speed profile of the discharge arm for causing the discharge arm to

lead the items selectively to a predetermined discharge position among a number of discharge positions.

(c) In this connection it needs also to be taken into consideration that the term "speed profile of the discharge arm" is neither further defined in claim 1 nor in the description of the patent in suit.

(d) As far as the disclosure of the specific embodiment should serve as a basis for the amendment of claim 1 it needs to be taken into account that not all other essential features of this embodiment have been added to claim 1 which for that reason also does not satisfy the requirement of Article 123(2) EPC.

V. The submissions of the respondent which are relevant for the present decision can be summarised as follows:

(a) Claim 1 as amended satisfies the requirement of Article 123(2) EPC since the additional features introduced into claim 1 according to the impugned decision have been taken from the description and the figures of the application as originally filed.

(b) The portions of the description forming the basis for the amendment of claim 1 mainly concern the definition of the specific embodiment in connection with figures 1 - 3. It is evident that, taking into account e.g. the manner in which an apparatus according to claim 1 is used in practice, the skilled person will consider those portions of

the description of a more general nature which likewise form a basis for the amendment in context with the description of the specific embodiment.

- (c) With respect to the feature that the control unit is pre-programmed and adapted for utilizing said control signal from the sensors for determining a pattern of motion and/or a speed profile of the discharge arm it is evident that the determination of the speed profile depends on the speed and the relative position of items following each other in the conveying direction on the conveyor and consequently the time available for discharging the items. The speed profile thus i.a. serves to let one item of closely adjacent items pass a particular discharge arm, which cannot be rotated fast enough to discharge both items properly and to leave this item for a further discharge arm arranged downstream. It goes without saying that such a speed profile can be determined and utilised in a pre-programmed control unit also in case the apparatus corresponds to the embodiment described in connection with figures 1 - 3.
  
- (d) Amended claim 1 comprises all essential features concerning the disclosed embodiment. Only minor structural details not essential to the invention defined by amended claim 1 have been left out.
  
- (e) Considering the features added to claim 1 in connection with the features of claim 1 of the patent as maintained according to the impugned decision it is thus evident that the amended subject-matter is one which has been further

limited with respect to the manner in which the discharge arm is controlled. It does not comprise any information not disclosed by the application as originally filed.

VI. Oral proceedings before the Board took place 16 May 2013.

### **Reasons for the Decision**

1. *Subject-matter of claim 1*

Claim 1 according to the main and sole request has been filed during the oral proceedings before the Board after a previous main request filed during the oral proceedings was withdrawn after thorough discussion.

1.1 Claim 1 according to the present main request comprises the features of claim 1 as maintained by the impugned decision, which comprises the features of claims 1 and 2 of the patent as granted, and in addition features taken from the description.

1.2 Claim 1 is thus, as was claim 1 of the patent as maintained, directed to

an apparatus for a sorting system comprising

(a) an activating member (2),

(b) a fastening bracket (3), and

- (c) a discharge arm (4) which at an end part (5) is pivotally connected with the fastening bracket (3) at a side (6) of a conveyor (7), where
- (d) said discharge arm (4) by means of said activating member (2) is adapted for being swung between a passive position (9) approximately parallel to said side (6) of the conveyor (7) and a number of active angular positions (8) in relation to the conveying direction (A) of the conveyor (7),
- (e) the activating member (2) being constituted by an electrically driven stepping motor or servomotor having a control unit being adapted for determining a pattern of motion and/or speed profile of the discharge arm (4), and that
- (f) said control unit is adapted for receiving at least one control signal from a number of sensors (16) being adapted for determining the lateral and longitudinal position of an item (11) on the conveyor (7), and which are operatively connected with the activating member (2).

1.3 In addition to the features of claim 1 as maintained present claim 1 comprises the group of features defining that

- (g) said control unit is pre-programmed and adapted for utilizing said control signal from the sensors (16) for determining a pattern of motion and/or a speed profile of the discharge arm (4) for causing the discharge arm (4) to lead the items (11) selectively to a predetermined discharge position



among a number of discharge positions (B, C, D) along said side (6) of the conveyor (7).

1.4 Concerning the understanding of the group of features (g) it is common ground that these features encompass three alternatives concerning the control unit which is pre-programmed and adapted for utilizing the control signal from the sensors for determining

(g1) a pattern of motion of the discharge arm

(g2) a speed profile of the discharge arm and

(g3) a pattern of motion and a speed profile of the discharge arm (combination of alternatives (g1) and (g2))

for causing the discharge arm to lead the items selectively to a predetermined discharge position among a number of discharge positions along the side of the conveyor.

1.5 Concerning the understanding of the alternatives (g2) and (g3) in the context of the group of features (g) and the combination of features (a) to (f) the meaning of the expression "speed profile" remained unclear, as asserted by the appellant.

1.5.1 The explanation given by the respondent that the expression "speed profile" is linked to the speed and relative distance of adjacent items on the conveyor in conveying direction and the effect this has on the control of the discharging arm (cf. point V(c) above) is, as indicated by the Board during the oral

proceedings, in contradiction to the group of features (g) referring explicitly but also exclusively to a "speed profile of the discharge arm".

1.5.2 The respondent's explanation is, as likewise indicated by the Board during the oral proceedings, furthermore without any support in the disclosure of the patent in suit as will be discussed in the following concerning the compliance of the group of features (g) with the requirements of Article 123(2) EPC.

2. *Admissibility of amendments in claim 1*

2.1 Although, as indicated above, the alternatives (g2) and (g3) remain without a clearly derivable meaning where it concerns the speed profile it has not been disputed that their introduction into claim 1 adds information to the teaching of this claim.

The group of features (g) encompassing these alternatives thus cannot be ignored when examining these amendments under Article 123(2) EPC.

2.2 Since the patent was granted on the application as originally filed, without any amendments, reference is made in the following, like in the oral proceedings by the appellant and the respondent, to the corresponding description and the drawings of the patent in suit.

2.3 With respect to the aspect of the group of features (g) that the control unit is pre-programmed the respondent referred to paragraph [0018] which states "As the activating member is an electrically driven motor, which is activated from a control unit, it is important

that the control unit can calculate/interact with the control signals that the control unit receives from the sensors. Therefore the motor comprises a pre-programmed control unit being adapted for utilizing said control signal from the sensors for determining a pattern of motion of the discharge arm. The pre-programmed control unit contains patterns of motion of the discharge arm that are determined by the lateral and longitudinal position and/or weight and/or quality/type of the item so that when the control unit receives a control signal from the sensors, it will retrieve the pre-programmed pattern of motion which results in the item being led out from the conveyor at the right time and to the correct position. The pattern of motion may thus depend on the lateral position and/or weight and/or quality/type".

This part of the description thus relates exclusively to the alternative (g1). Accordingly a control unit is provided which is pre-programmed and adapted for utilizing the control signal from the sensors for determining **a pattern of motion** of the discharge arm.

No disclosure is however present in respect of determining **a speed profile** of the discharge arm according to alternatives (g2) and (g3).

- 2.4 Concerning the features (g) the respondent further referred to paragraph [0008] according to which the purpose of the present invention as stated in paragraph [0007], namely to provide an apparatus for a sorting system, which in a simple way ensures a very precise control of one or more discharge arms and a method for the use of such an apparatus, is achieved

"by means of an apparatus, by the activating member being constituted by an electrically driven **stepping motor or servo motor having a control unit being adapted for determining a pattern of motion and/or speed profile** (marking in bold added) of the discharge arm, and by means of a method characterised in that the sorting of items on the conveyor is by means of following method steps:

- the items are either weighed and/or quality/type graded before they are placed on the conveyor, or weighed on a first part of the conveyor,
- the items pass the sensors placed above or along the conveyor,
- the sensors register the size and/or lateral and longitudinal position of the items on the conveyor, and at the same time, the sensors give out a control signal to the control unit of the apparatus,
- before the items reach the discharge arm, the discharge arm is turned from passive position to an active angular position in relation to the conveying direction of the conveyor,
- the discharge arm leads the items to a predetermined discharge position along said side of the conveyor".

The admittedly only portion of the description in which a speed profile of the discharge arm is referred to thus does not give any disclosure linking the features of the control unit being pre-programmed and adapted for utilizing the control signals from the sensors to the features of the speed profile of the discharge arm such that the discharge arm is caused to lead the items selectively to a predetermined discharge position among a number of discharge positions.

2.5 The respondent further referred to paragraphs [0034] to [0037] and the drawing (figures 1 - 3) concerning the only embodiment disclosed in the application as originally filed.

As indicated by the Board during the oral proceedings the disclosure given for the embodiment is focussed on and limited to the manner in which the **discharge arm** can be swung in order to discharge items arriving in various lateral positions on the conveyor (cf. column 6, lines 31, 32; 40, 41; 44, 45; figures 1 - 3) to a number of predetermined discharge positions A, B and C (cf. column 6, lines 33, 34; 40 - 43; 44 - 56; figures 1 - 3). This is a "pattern of motion", not a "speed profile".

Since in this description of the embodiment the **control unit** causing this rotation of the discharge arm such that it leads items selectively to a predetermined discharge position among a number of discharge positions as defined by features (g) is nowhere mentioned, this description and the corresponding figures 1 - 3 can neither serve as a basis for the introduction of features (g) into claim 1.

3. As a consequence, claim 1 does not satisfy the requirement of Article 123(2) EPC since no disclosure is given limiting the control unit being pre-programmed and adapted for utilizing the control signal from the sensors to the determination of a speed profile of the discharge arm for causing the discharge arm to lead the items selectively to a predetermined discharge position among a number of discharge positions.

3.1 Since claim 1 does not satisfy the requirement of Article 123(2) EPC for the reasons given above it can be left open whether or not this requirement is furthermore not satisfied, as asserted by the appellant, namely because this claim does not comprise all essential features disclosed in connection with the only embodiment (cf. point IV(d)).

3.2 For completeness' sake the Board wishes to point out that the above conclusion also applies when considering the group of features (g) in the light of the other features (a) to (f) of claim 1.

Feature (e), although mentioning "a control unit being adapted for determining a pattern of motion and/or speed profile of the discharge arm", like the remaining features of claim 1 of the patent as maintained according to the impugned decision, also does not comprise any further disclosure concerning the control unit which according to the group of features (g) is "pre-programmed and adapted for utilizing said control signal from the sensors for determining a speed profile of the discharge arm for causing the discharge arm to lead the items selectively to a predetermined discharge position among a number of discharge positions"; cf. also point 2.3 above.

3.3 The argument of the respondent that concerning the added feature: "the control unit is pre-programmed and adapted for utilizing said control signal from the sensors for determining a pattern of motion and/or a speed profile of the discharge arm" it is evident that the determination of the speed profile depends on the speed and the relative position of items following each

other in the conveying direction on the conveyor and consequently on the time available for discharging these items, can also not be taken into account since it lacks any basis in the application as originally filed.

The same reasons apply to the further argument that the speed profile i.a. serves the purpose to let one of two items closely following one another pass a particular discharge arm, which cannot be rotated fast enough to discharge both items properly and to leave the passing item to be discharged by a further discharge arm arranged downstream in the conveying direction.

- 3.4 The further argument of the respondent that it is obvious that such a speed profile can be determined and utilised in a pre-programmed control unit, also in case the apparatus corresponds to the one described as embodiment in connection with figures 1 - 3, fails likewise since the group of features (g) concerned does not have a basis in this part of the application as originally filed.

In this connection the Board wishes to point out that different criteria apply to whether or not added features satisfy the requirement of Article 123(2) EPC or whether they are obvious under Article 56 EPC. In the former case the issue is whether the subject-matter of claim 1 is "directly and unambiguously" disclosed for the skilled person in the application as originally filed and in the latter case the issue would be whether the subject-matter of claim 1 is, starting from the closest prior art, obvious for the skilled person in view of the relevant prior art.

4. Since amended claim 1 according to the only request does not satisfy the requirement of Article 123(2) EPC the patent has to be revoked (Article 101(3)(b) EPC).

## **Order**

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

1. The decision under appeal is set aside.
2. The patent is revoked.

The Registrar:

The Chairman:

G. Nachtigall

H. Meinders