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Datasheet for the decision
of 14 September 2017

Case Number: T 0060/13 - 3.2.04
Application Number: 06445037.2
Publication Number: 1731011
IPC: A01B51/04
Language of the proceedings: EN

Title of invention:
Agricultural tool holder

Patent Proprietor:
Askling, Lars

Opponent:
Amazonen-Werke
H. Dreyer GmbH & Co. KG

Headword:

Relevant legal provisions:
EPC Art. 108, 56

Keyword:
Admissibility of appeal - statement of grounds
Inventive step - (no)
Decisions cited:

Catchword:
Case Number: T 0060/13 – 3.2.04

DECISION
of Technical Board of Appeal 3.2.04
of 14 September 2017

Appellant: Amazonen-Werke
(H. Dreyer GmbH & Co. KG
Am Amazonenwerk 9-13
49205 Hasberg (DE)

Representative: Grünecker Patent- und Rechtsanwälte
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Respondent: Askling, Lars
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Decision under appeal: Decision of the Opposition Division of the European Patent Office posted on 26 October 2012 rejecting the opposition filed against European patent No. 1731011 pursuant to Article 101(2) EPC.

Composition of the Board:

Chairman: A. de Vries
Members: G. Martin Gonzalez
C. Schmidt
Summary of Facts and Submissions

I. The appellant-opponent lodged an appeal against the decision of the Opposition Division of the European Patent Office posted on 26 October 2012 rejecting the opposition filed against European patent No. 1731011 pursuant to Article 101(2) EPC. The notice of appeal was filed on 2 January 2013 and the fee paid simultaneously. The statement setting out the grounds of appeal was received on 4 March 2013.

II. Opposition was filed against the patent as a whole and based on Article 100(a), lack of novelty and inventive step in view of inter alia:

   D1: US 53 98 771

   In its decision the Opposition Division held that the subject-matter of claim 1 was neither anticipated nor made obvious by the available prior art documents and maintained the patent as granted.

III. In the appeal proceedings the Board considered the following further document filed with the statement of grounds:

   D1': Owner's Manual 4000 Series

IV. The appellant-opponent requests that the decision of the opposition division be set aside and the patent be revoked. Auxiliarily oral proceedings are requested.

V. The respondent-proprietor requests that the appeal be dismissed.

VI. The Board issued a communication pursuant to Rule 100(2) EPC, dated 3 February 2017, in which it gave its preliminary and non-binding view regarding novelty and
inventive step in view of D1. The appellant opponent replied on 12 April 2017. The respondent proprietor filed responses to both letters on 31 March 2017 and on 14 July 2017 respectively.

VII. The wording of claim 1 as granted reads as follows:

"Tool carrier for agricultural machines including a suspension device with a wheel (18) for the contact with the ground and one or several tool holders that jointly are suspended in parallel, the wheel is journaled in the tool holder (9) or an extension thereof that via two swing arms (4, 5) is journaled in a mounting device (2,3) for the suspension device so that a parallelogram suspension is achieved, with the swing arms extending backwards downwards from the mounting device, the mounting device (2, 3) is fastened to a beam (1) arranged crosswise relative to the direction of movement, on which beam several suspension devices may be mounted, characterized in one or several springs (16) being arranged between one of the swing arms and the mounting device and effective for pulling the tool holder forwards, downwards in the driving direction, in the travel direction the wheel is behind the tool holder and the beam is further turnable so that through a turning of the beam (1) the inclination of the tool holder (9) may be changed in turn altering the relation heightwise between wheel and tool (13; 14; 15) for changing work depth."

VIII. The appellant-opponent argues as follows:

The subject-matter of claim 1 lacks of novelty in view of D1 or inventive step over combinations of D1, D3 and common general knowledge.
IX. The respondent-proprietor replied as follows:

The appeal is not admissible because it is based on the same documents and arguments as were discussed before the opposition division. The features of granted claim 1 are not clearly and unambiguously disclosed by D1. Furthermore, the mode of operation of the device according to D1 is different to the one of the claimed invention and consequently the claimed features are neither disclosed nor suggested by its teachings.

Reasons for the Decision

1. Admissibility

The respondent-proprietor disputes that the appeal is admissible as the appellant-opponent "bases the appeal on the same documents and the same arguments as were discussed in the first instance".

It follows immediately from the function of appeal proceedings to give a judicial decision upon the correctness of a separate earlier decision of a first instance (G9/91 OJ 1993, 408; G10/91, OJ 1993, 420) that an appeal must, in first place, concern the facts, evidence and reasoning of that decision and thus be based on the same documents and directed at the arguments discussed and decided therein. Indeed a statement of grounds need not even go beyond the points made before an opposition division to be admissible, T3/95, see Case Law of the Boards of Appeal, 2016, 8th. edition, IV.2.6.6. In the present case the statement of grounds in sections 2.1, 3.1. and 3.3 argues extensively, feature by feature, why the appealed decision was wrong to find novelty over D1 and inventive step over D1 and further prior art. In
particular, these arguments enable the Board to immediately understand why the decision is alleged to be incorrect in the sense of Rule 99(2) EPC and should be set aside.

As otherwise all formal requirements are met, the Board concludes that the appeal complies with the provisions of Article 108 and Rule 99 EPC, and that therefore the appeal is admissible.

2. Background

The patent relates to a tool carrier for an agricultural machine, such as e.g. sowing machines. In this type of machine, a beam 1 (see fig. 1 of the patent), arranged crosswise relative to the direction of movement, has several suspension devices and tool holders arranged in parallel. In the tool carrier of the claimed type each tool holder 9 has a tool 13, 14 or 15 and a trailing wheel 18. Trailing wheel 18 limits further digging of the tool into the soil, so that work depth of the tool is controlled by the height difference between wheel 18 and tool 13-15, which height difference is in turn determined by the horizontal inclination of the tool holder 9. In claim 1 the suspension device is formed by what is effectively a parallelogram four-bar linkage system 2,4,5,9 (see par. [0008]), wherein the upper bar or mounting device 2 is clamped to the beam 1 and maintains thereby a fixed horizontal inclination. In turn, the lower bar or tool holder 9, being the corresponding parallel member of the parallelogram, keeps the same horizontal inclination at any angle of the possible swinging movement of the parallelogram about the fixed upper bar or mounting device 2 - e.g. on uneven ground surfaces or when hitting a rock. Thus work depth is maintained
at any swing angle of the linkage system. Springs 6 urge the linkage system with the tool holder (lower bar 9) forwards, downwards in the direction of movement - to the left in fig. 1 - into the soil, see specification paragraphs [0008], [0009]. The beam 1 of the claimed tool carrier is rotatable so as to alter the horizontal inclination of the tool holder and consequently change work depth, see specification paragraph [0011].

Thus, the claimed rotatable parallelogram suspension system serves both to adjust and to maintain tool work depth, while also allowing the tool to clear obstacles (rocks) in the soil without damage, paragraphs [0011]-[0013].

3. Inventive step

Inventive step is contested starting from D1 as closest prior art.

3.1 It is undisputed that D1 describes a tool carrier fastened to a beam 86, and a parallelogram four-bar linkage suspension system 70, 71, 72, 73. D1 further describes a tool holder (support braces arm supports) 59, 60 having a plurality of tools (discs 56,57) and trailing (press and gauge) wheels 58, the tool holder being attached to the lower bar 71 of the linkage. In the wording of the granted claim, the tool holder 59, 60 and the extension thereof - bar 71 - are journaled via two swing arms 72, 73 in the mounting device 70 so that a parallelogram suspension is achieved. The mounting device or upper bar 70 is fastened to the beam 86. Beam 86 can be rotated to adjust work depth, see D1, col. 6, lines 57-59, see also figures 4,5. Document D1 further discloses a tension spring 66 for pulling
the tool holder 59,60 forwards, downwards in the
driving direction, see D1, col. 7, lines 45-63. In said
driving direction the wheel 58 is behind the tool
holder 59, 60 ,see D1 figs. 4, 5.

Depth adjustment by rotation of the bar is achieved,
figures 4 and 5, col.3, ln. 30 to 38, and col.6, ln. 57
to 64, by rotating the beam 86 and the attached bar or
mounting device 70, which through the parallelogram
linkage 65, rotates the opposite bar member 71 in
parallel. Further, claim 2 and feature e) of claims 7
and 14, the parallel link system has rigidly mounted
thereto by an arm support the press wheels for
adjusting ground opening depth. From these passages and
figures 4 and 5 considered in conjunction it follows
that rotation of the bar 86 alters the linkage and thus
(claim 2) the arm support and press wheels rigidly
connected thereto to adjust opening depth.

In this regard the Board notes that col. 8, lines 30,31
and col. 9, line 41, refer to the press wheels 58 as
"press and gauge wheels". The term "gauge wheel" is
commonly used in the field of agricultural implements
to denote "an adjustable wheel attached to a plow or
planter that regulates the depth of penetration into
the soil", see e.g. Merriam-Webster online dictionary.

3.2 The appellant opponent disputes the decision's finding
that D1 does not directly and unambiguously disclose
the feature that the turning of the beam 86 changes the
inclination of the tool holder (arm support) 60,
supporting the tools or opener discs 56, 57 and press
wheels 58, in turn causing a relative height adjustment
between wheel 58 and tools 56,57 for changing work
depth. The decision held that such an operation would
require a rotationally stiff or rigid connection
between the lower side bar 71 of the parallelogram linkage 65 and the tool holder (arm support) 60 carrying wheel 58 and tools 57, and that such a rigid connection was not directly and unambiguously disclosed in D1.

The respondent-proprietor argues in this regard that the rigid connection mentioned in claims 2, 7 and 14 is unclear as to whether the connection is between arm support with press wheels and the lower side bar 71 or the upper swing arm 72.

3.3 In the Board's understanding of D1 it follows from the cited passages and figures 4 and 5 considered in conjunction that arm support 60 (including brace 59) must be rigidly connected to lower side bar 71. It is immediately apparent that the position of the dirt guard 63, brace 59 (bearing blades 56, 57) and arm support 60 (bearing press wheel 58) relative to the lower side bar 71 is unchanged in both figures, whereas relative to the upper swing arm 72 it is clearly changed. As these figures are meant to illustrate depth adjustment, col.3, ln.37 to 38, which according to col. 6, ln. 57 to 64, is achieved by rotating tool bar 86, this can only mean that dirt guard 63, brace 59 and arm support 60 have moved together with lower side bar 71 (rotated by virtue of the linkage in the same sense as bar 86) and not with upper swing arm 72. Thus, dirt guard 63, brace 59 and arm support 60 are, during depth adjustment, be rigidly connected to bar or beam 71. Indeed, if during adjustment the rigid connection were to the upper swing arm 72, because it swings upwardly by more than 50° from figure 4 to 5, brace 59 and support 60 would also have tilted upwardly resulting in a deeper not shallower groove depth.
That this may require adjustment of spring tension, as argued by the respondent, is neither here nor there as this is not excluded by claim 1.

3.3.1 The further submissions that document D1 is not enabling because figures 7 and 8 depict parts of the device - e.g. dirt guard 63 on figure 7 - that are in contradiction with a rigid connection between lower bar 71 and the tool holder 59, 60 are not convincing either. Said figures are used in D1 to illustrate a transport configuration of the machine, namely the tool bar in the lifted position with disc openers and wheels raised from the soil for transportation. Figures 7 and 8 are thus not related to the method of changing work depth in use, when the tool and wheel are contacting the soil. Therefore, the allegedly deficient information from those figures does not prevent the skilled person to fully comprehend and carry out the method of adjusting work depth as is clearly and unambiguously disclosed by figures 4, 5 and associated parts of the description. Thus, as concerns the features in dispute, the Board considers D1 as an enabling disclosure, because neither the skilled person is prevented by the submitted "deficient" information to put those features into practice as they are described in the prior art document nor can it prove that the disclosed work depth adjustment as explained above does not represent the intended technical teaching of D1.

3.3.2 The respondent-proprietor also seeks to convince the Board that depth setting on the device according to D1 corresponds to a different mode of operation than the one claimed by the contested patent. He submits that depth setting in D1 is made by adjusting the spring tension to affect the wheel down pressure relationship to the tool, the actual work depth being influenced by
changes of soil structure or hardness and spring
tension. Consequently the depth of the tool cannot
solely be defined by a rotation of the tool bar,
meaning that the feature as claimed by the contested
patent is not disclosed by D1. In support of this
argument he takes document D1' - user's manual 4000
series, which was late filed by the appellant opponent
- as a practical realization of the invention described
in D1 by the proprietor of that patent. However, in the
view of the Board, were document D1' a practical
realization of the invention in D1 (this can be
questioned), it would rather confirm the correctness of
the above finding, bearing in mind that D1 provides
several different adjustment capabilities, that said
document describes the depth adjustment claimed in the
contested patent as one of the different adjustment
possibilities. On page 18 of D1' it is first explained
how down pressure can be individually adjusted to
"assure solid press wheel action", i.e. sufficient down
pressure to assure permanent wheel contact with the
ground. Following it, "Setting Seed Depth" explains
that work depth can be individually set by changing for
each suspension device and tool holder the height
relationship between press wheel and opener tool.
Finally, on page 19 the disputed feature of the
contested patent is described, namely work depth
simultaneous adjustment using tool bar rotation,
wherein it is furthermore explicitly depicted on the
figures that work depth corresponds to the height
relationship between wheel and tool and that the tool
and wheel holder is rigidly attached to the lower bar
of the parallel link system.

3.3.3 The respondent-proprietor further argues that, contrary
to spring 66 of the D1 device, the spring 16 in the
claimed invention serves only to swing the tool holder
back after hitting a rock not to force it into the ground. Rather, the bill 13-15 of the claimed invention due to its shape seeks depth. However, in the view of the Board, for the skilled person this distinction is neither apparent from the wording of claim 1 itself, nor is it derivable from any specific information in the patent disclosure. The contested patent on the contrary teaches in paragraph [0011] to provide down pressure by means of the weight of the device, and "[if] more force is needed" by an additional hydraulic cylinder or any other additional means to "press the tools down into the ground". It is further explicitly described in paragraph [0011] that "springs 16 take up the downwards pressing force". In the opinion of the Board this mode of operation, as far as required by claim 1 of the contested patent, corresponds to the mode of operation described by D1.

3.3.4 On the basis of the above the Board concludes that the skilled person derives directly and unambiguously from D1 that the beam is further turnable so as to change the inclination of the tool holder (9) to alter the height-wise relation between wheel and tool (13; 14; 15) and so change work depth.

3.4 Distinguishing feature

In the view of the Board, D1 does not disclose the feature of claim 1 that spring 66 is arranged between one of the swing arms (side bars 72, 73 of the linkage system) and the mounting device (upper bar 70 of D1) as required by claim 1 of the contested patent. In D1 spring 66 is arranged between the mounting device (bar 70 of D1) and the tool holder (bar 71 of D1).
The feature of one or several springs being arranged between one of the swing arms and the mounting device is thus the sole difference of granted claim 1 over the prior art of D1.

3.5 Objective problem

Both spring arrangements - that of D1 and the alternative arrangement as claimed - provide the same effect, namely pulling the tool holder forwards, downwards in the driving direction. Thus, the problem to be solved by the claimed invention can be considered as the provision of an alternative construction of the tool carrier according to D1.

3.6 Solution

For the skilled person it is immediately apparent from straightforward considerations that it is immaterial for the effect provided, whether the spring attaches the upper bar 70 to the lower side bar 71 or the side arms/bars 72, 73 of the linkage. Such a change does not alter the action of the linkage. Either spring arrangement achieves the same effect. The skilled person consequently considers them as functionally equivalent arrangements. Indeed how the spring is exactly arranged within the linkage is a matter of routine design depending on the particular shape and dimensions of the parts of the linkage. Therefore he would consider replacing one by the other, in this particular case by attaching the lower end of spring 66 to the side swing arm 72 of the linkage system of D1, depending on the circumstances as a matter of obviousness so arriving at the subject-matter of granted claim 1 without the need of inventive skill.
3.7 The Board thus concludes that the subject-matter of claim 1 does not involve an inventive step.

4. For the above reasons the Board holds that contrary to the finding of the decision under appeal at least one ground for opposition prejudices the maintenance of the European patent.

4.1 The respondent has not filed alternative requests nor requested a hearing before the Board issues an adverse decision. In this regard, the Board does not consider the respondent's statement in their response dated 2 August 2013 that "if an oral hearing is to take place we wish to attend" to constitute such a request. That statement merely states an intention to attend if oral proceedings prove necessary, i.e. if the Board is unlikely to accede to the main request of the appellant, who had for that eventuality requested oral proceedings. The indication in their later response (dated 30 March 2017) to the Board's communication of 3 February 2017 regarding the language used in "possible oral proceedings" and the request to use Swedish in oral proceedings, after having first stated that "we find it unnecessary to attend an oral proceeding" concerns the modalities of oral proceedings, should these be appointed, but is not seen to constitute a clear and unconditional request for oral proceedings.

4.2 The Board is further satisfied that by its communication the respondent was made aware of the central points underlying this decision and has also had sufficient opportunity to take a position thereon. It is thus satisfied that the requirements of Article 113(2) EPC have been met.
4.3 The Board thus revokes the patent pursuant to Article 101(2) 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. Magouliotis  

A. de Vries

Decision electronically authenticated