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BOARDS OF APPEAL OF THE EUROPEAN PATENT OFFICE

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File Number: T 489/89 - 3.2.3

Application No.: 81 200 682.3

Publication No.: 0 043 156

Title of invention: Device for picking up crop from the field

Classification: A01D 89/00, A01F 15/10

# D E C I S I O N
of 10 September 1991

Proprietor of the patent: Multinorm B.V.

Opponent: CLAAS OHG

Headword:

EPC Article 56

Keyword: "Inventive step (affirmed after limitation of the claims)"

## Headnote

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Beschwerdekammern | Boards of Appeal | Chambres de recours

**Case Number : T 489/89 - 3.2.3**

# D E C I S I O N
## of the Technical Board of Appeal 3.2.3
## of 10 September 1991

**Appellant :** (Opponent)
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**Decision under appeal :**
**Interlocutory decision of Opposition Division of the European Patent Office dated 3 July 1989 conerning maintenance of European patent No. 0 043 156 in amended form.**

**Composition of the Board :**

**Chairman :** C.T. Wilson
**Members :** F. Brösamle
J.-C. Saisset

**Summary of Facts and Submissions**

I. European patent No. 0 043 156 was granted on 16 January 1985 with nine claims in response to European patent application No. 81 200 682.3, filed on 16 June 1981.

II. A notice of opposition to this patent was filed on 4 October 1985 by CLAAS OHG (Appellant in the following) requesting that the patent be revoked in its entirety on the grounds of Articles 52 to 57 EPC, in particular on grounds of lack of inventive step in the light of the state of the art

(D0) - FR-A-2 211 173
(D1) - DE-A-15 07 224
(D2) - The brochure "Schwingzetter mit schwingenden Zinken", Bayerische Pflugfabrik, Landsberg, 1960
(D3) - The brochure "Maximum", Claas
(D4) - The brochure "Hayter Rotamower"
(D5) - The brochure "Fella-Turboschwader", Fella Futterernte-Technik
(D6) - DE-U-74 11 795 and
(D7) - DE-B-10 65 652.

III. The Proprietor (Respondent in the following) filed amendments to the claims - by combining particularly granted Claims 1 and 6 - and the Opposition Division informed the parties in accordance with Rule 58(4) EPC that it intended to maintain the patent on the basis of documents as agreed during the oral proceedings held on 3 March 1989; the Appellant, however, disapproved of the text communicated by the Opposition Division, Rule 58(5) EPC.

IV. By an interlocutory decision within the meaning of Article 106(3) EPC dated 3 July 1989 the Opposition Division maintained the patent in amended form on the basis of the documents specified in the communication according to Rule 58(4) EPC dated 4 April 1989.

V. The Appellant lodged an appeal on 22 July 1989, paying the appeal fee on the same day. The Statement of Grounds of Appeal was received on 4 November 1989, whereby the Appellant cited the documents

(D8) - DE-A-15 07 320 and
(D9) - Prospect "Jaguar, 70 S" of Claas OHG.

The Appellant maintains his request to revoke the patent essentially for reasons of lack of inventive step.

VI. The Respondent maintained that the available prior art would not deprive the claimed subject-matter of an inventive step in the meaning of Articles 56 and 100(a) EPC.

VII. With a communication of 29 January 1991 the Board gave its provisional opinion about Claims 1 and 5 in particular for preparing oral proceedings before the Board.

VIII. In the oral proceedings held on 10 September 1991 the Respondent - after discussion of the case - submitted new Claims 1 to 5, thereby restricting Claim 1 by incorporating the feature "motor-driven" in combination with the spreading number "4" and deleting the other independent claim (Claim 5) concerning the worm conveyor as the spreading member. The description and drawings were made consistent with the above mentioned Claims 1 to 5.

Claim 1 reads as follows:

"1. A device for picking up crop stacked in swaths on the field, comprising a frame (1) movable across said field and crop pick-up means (2) carried by said frame (1), a driven spreading member (4) arranged, with respect to the direction of movement, in front of the crop pick-up means (2) for spreading the crop in a transverse direction, characterised in that the spreading member (4) is motor-driven and is adapted to reciprocate transversely to the direction of movement and wherein crop retaining elements (18) are arranged on the frame on both sides of said driven spreading member, the driven spreading member being arranged centrally between the crop retaining members so that, in use, the spreading member spreads crop from a swath into the spaces between the spreading member and the retaining elements."

The Respondent requested to maintain the patent in amended form, i.e. Claims 1 to 5, description and drawings submitted during the oral proceedings before the Board.

The Appellant contended that the combination of documents (D0) and (D2) would lead a skilled person to the subject-matter of Claim 1 without the exercise of an inventive step, since it would be sufficient to replace the spreading member according to (D0) acting in an oblique direction by a spreading member known from (D2) acting in a transverse direction. Reference was also made to (D8), showing retaining members on both sides of a pick-up drum..

The Appellant consequently requested to revoke the patent even in its still more restricted version.

IX. At the end of the oral proceedings before the Board the Chairman gave the Board's decision by setting aside the

appealed decision and maintaining the patent in amended form as requested by the Respondent.

## Reasons for the Decision

1. The appeal complies with Articles 106 to 108 EPC and Rule 64 EPC and is admissible.

2. Formal aspects under Article 123 EPC

2.1 Claim 1 is a combination of features disclosed in originally filed Claims 1, 2 and 7 and in originally filed Figure 1 ("centrally arranged between ..."), whereby the feature concerning "a motor-driven" spreading member is disclosed in originally filed Figure 1 and its corresponding text, see particularly reference sign "15" for "driving shaft".

Claims 2 to 5 correspond to originally filed Claims 3 to 5 and 8.

As a consequence of the foregoing, Claims 1 to 5 are not open to an objection under Article 123(2) EPC.

2.2 Present Claim 1 is restricted with respect to granted Claim 1 since it is a combination of features of granted Claims 1 and 6 and of granted Figure 1 ("centrally arranged ...") and since the feature of a "motor-driven" spreading member constitutes a further restriction of the device for picking up crop laid down in granted Claim 1. Summarising, Claim 1 meets the requirements of Article 123(3) EPC.

This is also true for Claims 2 to 5 which literally correspond to granted Claims 2 to 4 and 6.

3. Starting point of the invention; object of the invention and its solution:

3.1 From the documents (D0) to (D9) the nearest prior art document is (D0) from which document the features set out in the preamble of Claim 1 are known, Rule 29(1)(a) EPC.

3.2 The device for picking up crop according to (D0) is characterised by a spreading member in form of two wheels "17,18" equipped at their circumference with a multitude of tines. These wheels lift and shift the crop sideways in an oblique manner, see Figure 1 and page 3, lines 9 to 11; the wheels are driven by contact with the ground due to the longitudinal motion induced by the tractor. The spreading action is therefore dependent on the longitudinal speed of the device. Should the device not run exactly in the centre of a swath to be spread then the spreading effect is not uniform, since then more crop will be shifted to one side.

Under these circumstances the density distribution of the crop after spreading is not uniform; this effect leads, however, to problems in the bale-press, since the bales obtained also show inconsistencies in their density.

3.3 Starting from (D0) the invention has for its object to provide a device for picking up crop stacked in swaths on the field by which a uniform feed into the implement (i.e. bale-press) is ensured, see column 1, paragraph 4 of the description.

3.4 This object is solved with the features of Claim 1, the characterising features being:

(a) the spreading member is motor-driven;

(b) the spreading member is adapted to reciprocate transversely to the direction of movement;

(c) crop retaining elements are arranged on the frame on both sides fo the motor-driven spreading member;

(d) the motor-driven spreading member is arranged centrally between the crop retaining elements, and

(e) in use the spreading member spreads crop from a swath into the spaces between the spreading member and the retaining elements.

3.5 It is doubtful whether feature (e) is a structural feature or whether it is only a functional term setting out the function of features (a) to (d).

3.6 The effects achieved by the device defined in Claim 1 can be seen in the possibility to evenly distribute a swath in a transverse direction, particularly as far as the central portion (peak) of the swath is concerned, see Figure 1, swath "Z" and tines "5,5", which tines end well above the ground and act mainly on the central part of the swath as represented by a pair of opposing arrows (no reference signs!). The retaining elements of the device act as abutments for the crop, which is not only shifted in a transverse direction, but is really thrown by the motor-driven spreading member. The space between the opposing retaining elements is thus evenly filled so that the bale-press is fed with a stream of crop of uniform density with the consequence that bales with high homogenity are achievable.

4. Novelty

Novelty of the claimed pick-up device was not disputed by the Appellant, and is recognised by the Board, so that no further argument is necessary in this respect, Article 54 EPC.

5. Inventive step

5.1 As set out above under remark 3.1 (D0) is the starting point of the invention. Studying the known device for picking up crop the skilled person possibly would realise that the weak point of this device is the spreading member, since its action is linked to the existence of a longitudinal speed. It is true that the spreading member in form of the obliquely arranged wheels is "driven", however, not in the meaning of attacked Claim 1, since there "driven" is "motor-driven".

5.2 To replace a spreading member of known construction (D0) by a positively (motor!) driven spreading member constitutes a first step to be carried out by a skilled person who is attempting to improve the nearest prior art device for picking up crop.

5.3 From (D2) for instance it is evident that positively driven spreading members per se are known, however, in an arrangement quite different from that of Claim 1, since the tines are not exclusively arranged centrally, but over the whole width of the tine-carrier. The purpose of the known tine-arrangement is to spread and not to form a stream of crop of a uniform thickness distribution as envisaged in Claim 1 and its underlying problem.

5.4 The direction of shifting the crop - obliquely in the device according to (D0) and transversely (90°) according to Claim 1 - as set out in feature (b) of Claim 1 does

certainly not distinguish the claimed device for picking up crop remarkably from (D0), so that the Board is insofar of the Appellant's opinion.

5.5 The Appellant's argument that in (D0) retaining elements would be disclosed can, however, not be accepted, since this interpretation is the result of hindsight and not supported by the document itself.

In Figure 1 of (D0) the pick-up drum "11" has to be carried by whatever means, be it a frame, walls, levers .. .. Without knowing the invention the Board is convinced that from (D0) no teaching can be derived which allows the "wall" indicated in Figure 1 thereof (partly hatched) to be seen as a retaining element, which would act as an abutment for crop thrown to it by the spreading member. This interpretation is firstly based on the type of spreading member used in (D0), which does not really throw the crop, but only seize, lift and shift it from a swath into a stream of the width of the pick-up drum, so that no necessity can be seen why retaining elements should be present in this case. The wall indicated in Figure 1 of (D0) is therefore interpreted as a "carrier means" for the pick-up drum, whose purpose may in addition to the carrier function, be seen in the function to act as a protective shield for persons or matters in the neighbourhood of the device in order to avoid injuries caused by the tines of the pick-up drum "11".

5.6 A channel for a stream of crop limited by two retaining elements as claimed in Claim 1 is not known in the art, including document (D8). (D1) and (D2) do not even disclose a single retaining element as is the case in combination with (D4), (D5) and (D6).

The elements shown in (D3), (D7), (D8) and (D9) are wall-elements and not retaining elements which interact with a positively driven spreading member. Thus, (D3), (D7) and (D9) do not disclose more in the direction of the claimed retaining elements than (D0) does, so that no further discussion of these documents appears to be necessary (in accordance with the oral proceedings before the Board).

This is already an essential point for accepting inventiveness of the device defined in Claim 1.

5.7 Appellant's findings that retaining elements would be known from the prior art to be considered are therefore not justified and are the result of an interpretation not supported by the prior art documents themselves, but by hindsight.

5.8 From features (a) to (d) respectively (e) set out in remark 3.4, the features (a) and (b) are known from (D2), not, however, in an arrangement as prescribed in feature (d) (centrally ...).

5.9 Features (c), (d) and (e) are not known from documents (D0) to (D9) so that a skilled person starting from the device according to (D0) and facing the problem to propose a device which leads to a uniform feed of crop into the following implement (bale-press) could not rely on the teachings of the prior art to find out the solution laid down in Claim 1.

5.10 It has to be assessed whether the knowledge of a skilled person could contribute to improve the device of the preamble of Claim 1 in the meaning of the characterising clause thereof.

5.11 In this context it has to be considered that the problem to be solved is not so much linked to the pick-up device as such, but arises from the bale-press i.e. from an implement downstream of the pick-up device.

This is a further step necessary to correctly assess the contribution of Claim 1 to the prior art. Again no document is available which teaches a skilled person that improving the bale-density-distribution has to begin with the action of a pick-up device.

5.12 To recognise these interrelationships appears to be beyond the normal skill of a practitioner, so that the Board is convinced that the pick-up device according to Claim 1 is the result of inventive endeavour in the meaning of Articles 56 and 100(a) EPC.

5.13 As a result of the foregoing observations Claim 1 is valid and can form the basis for maintaining the patent in amended form.

Dependent Claims 2 to 5 are likewise valid.

6. The Appellant's arguments as far as they were not dealt with above are not convincing for the following reasons:

6.1 It is true that (D0) comprises a transverse component for the crop when spread, however, the spreading is comparatively soft in (D0) and has to be seen as a lateral shifting action. To replace the known spreading member according to (D0) by a spreader known from (D2) is, however, not the only step to be carried out by a skilled person to achieve the pick-up device of Claim 1.

6.2 The Appellant has not brought forward convincing arguments why the spreading member of (D0) should be replaced by a

device known per se from (D2). The Appellant thus denies the reason for such a replacement of spreading members, i.e. the uniform feed to the bale-press.

It is hindsight to argue that the extreme value for "obliquely shifting" is 90° (transverse) and to bring documents (D0) and (D2) in this way together.

6.3 The Appellant denies the completely different function of the known "retainer elements" - if at all - according to (D0) and (D8). Even if in (D0) and (D8) a retaining effect were existent, this would not necessarily improve the density - distribution of the stream of crop since the passively driven wheels according to document (D0) shift the crop in dependence on their position in relation to the swath. When this position is away from the centre of the swath, then the crop is preferably shifted to one side only i.e. though retaining elements are considered to be present the stream of crop has no improved density-distribution. It is therefore not sufficient to replace one spreading member by another. What is important is the interrelationship between the spreading member and the retaining elements. Even if one considers that in (D0) a side shifting with the width of the pick-up drum is disclosed, an interrelationship between the spreading member and "retaining " elements cannot be derived therefrom. It is thus not justified to interpret the side walls of (D0) as elements elongated in the forward direction of the drum to act as retaining elements interacting with the spreading member, see Statement of Grounds of Appeal, page 4, paragraph 3.

6.4 As a consequence of the foregoing considerations it is moreover not justified to argue that the problem to be solved by the invention is also solved with the device of

(D0), page 5 of the Statement of Grounds of Appeal. In pages 5 to 7 thereof the Appellant has dealt with document (D1) to demonstrate that the distance of the tines to the pick-up drum can be varied and that the tines can be varied in their arrangement. (D1) has not played a role in the oral proceedings before the Board so that after further narrowing Claim 1, these arguments need no further comment, since in Claim 1 a combination of features is claimed which are linked together so as to achieve a combinatory effect. It is therefore irrelevant, whether one or more of the features claimed in the characterising clause of Claim 1 is/are known per se as long as a skilled person does not simultaneously obtain hints from these documents, that these features contribute to the solution of the problem to be solved by the invention (uniform feed of crop).

7. In its present form the patent can therefore be upheld in its amended and still more restricted version.

Order

For these reasons, it is decided that:

1. The impugned decision is set aside.

2. The case is remitted to the first instance with the order to maintain the patent on the basis of the documents agreed upon during the oral proceedings.

The Registrar: The Chairman:

N. Maslin C.T. Wilson

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