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**Datasheet for the decision
of 5 October 2018**

Case Number: T 1933/14 - 3.2.04

Application Number: 10161386.7

Publication Number: 2382858

IPC: A01F15/08

Language of the proceedings: EN

Title of invention:

Round baler with electrically driven roller

Patent Proprietor:

Deere & Company

Opponent:

Octrooibureau Van der Lely N.V.

Headword:

Relevant legal provisions:

EPC Art. 56

RPBA Art. 12(2)

Keyword:

Inventive step - main request (no)

Decisions cited:

Catchword:



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Case Number: T 1933/14 - 3.2.04

D E C I S I O N
of Technical Board of Appeal 3.2.04
of 5 October 2018

Appellant: Octrooibureau Van der Lely N.V.
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Decision under appeal: **Decision of the Opposition Division of the
European Patent Office posted on 22 July 2014
rejecting the opposition filed against European
patent No. 2382858 pursuant to Article 101(2)
EPC.**

Composition of the Board:

Chairman J. Wright
Members: G. Martin Gonzalez
W. Van der Eijk

Summary of Facts and Submissions

- I. The appellant-opponent lodged an appeal, received 22 September 2014, against the decision of the Opposition Division posted on 22 July 2014 rejecting the opposition filed against European patent No. 2382858 pursuant to Article 101(2) EPC. The appeal fee was paid at the same time. The statement setting out the grounds of appeal was filed on 14 November 2014.

- II. Opposition was filed against the patent as a whole and based on Article 100(a) with Article 56 EPC (lack of inventive step). The opposition division held that this opposition ground did not prejudice the maintenance of the granted patent having regard to the following prior art, among others:
D1: DE19609926(A1),
D7: DE102008014998(A1),

- III. The appellant-opponent requests that the decision under appeal be set aside and that the patent be revoked in its entirety.

- IV. The respondent-proprietor requests that the appeal be dismissed. In the alternative, that the patent be maintained in amended form according to claims of a first or second auxiliary request, both filed on 18 June 2014.

- V. Claim 1 of the main request (as granted) reads as follows:

"A round baler (12) comprising a frame (24), a baling chamber (26) radially surrounded by baling means with one or more driven rollers (28, 30) and an electric motor (52) for driving the roller (28, 30),

characterized in that the electric motor (52) is disposed in the interior of the roller (28, 30) and that the motor (52) comprises an output shaft (54) coupled to a radially extending supporting disk (50) connected to a shell (44) of the roller (28)".

VI. The appellant-opponent argued as follows:

The subject matter of claim 1 as granted lacks inventive step starting from D1 combined with D7. No objection is made to admitting the auxiliary requests into the proceedings. If the main request fails, the case should be remitted to the opposition division for further prosecution.

VII. The respondent-proprietor argued as follows:

The combination of D1 and D7 does not take away inventive step of the subject matter of claim 1 as granted. The auxiliary requests should be admitted into the proceedings as these were timely filed. If the main request fails then the case should be remitted to the opposition division for consideration of the auxiliary requests.

Reasons for the Decision

1. The appeal is admissible.
2. Background

The invention relates to a round baler having a baling means with one or more driven rollers (see published specification, paragraph [0001]). A central idea of the invention (see published patent specification,

paragraph [0010] and claim 1) is to drive the roller with an electric motor that is disposed inside the roller.

3. Main request, inventive step of claim 1 (as granted)

D1 discloses a round baler (title) comprising a frame (chassis 1 - "Fahrgestell", side walls 7, 9), a baling chamber (compression chamber 14 - "Preßkammer", see column 2, line 55 to column 3, line 11 with figure 1). The chamber 14 is radially surrounded by baling means (endless belts 13, rollers e.g. 11, 16, 17) with one or more driven rollers (see column 2, lines 55 to 58).

Contrary to the respondent-proprietor's view, the Board considers that the scraping roller 28 "Abstreifwalze 28" is part of the baling means.

D1 explains (see column 2, line 55 to column 3, line 25 with figures 1 and 2) that a bale 15 is formed in the compression chamber 14. The bale 15 is pressed by continuous belts 13 running in parallel. At the top of a hay inlet 18, the downward belt run 27 is redirected by a roller 17 "Riemenlenkwalze 17" to the upward belt run 26, which directly contacts and forms the bale 15 (column 2, lines 62 to 65, figures 1 and 2). Thus the redirecting roller 17 is a key part of the baling means, defining one extremity of the bale forming belt run 26.

The scraping roller 28 (see column 3, lines 15 to 18 and 49 to 65 with figure 2) is positioned very close to the roller 17. Since, furthermore, the redirecting roller 17 and scraping roller 28 rotate in the same direction 39, their velocity vectors are tangentially opposed where the rollers meet, so that [residual hay]

material is prevented from winding itself around the roller 17. Put differently, the scraping roller 28 contributes to the making of the bale by keeping the belt redirecting roller 17 free of residual material. Therefore, the scraping roller 28 is an integral part of the baling means.

Furthermore (see D1, column 2, lines 2 to 10 and claim 4), the scraping roller 28 may be electrically driven. This implies the presence of an electric motor.

Therefore, the Board concludes that D1 discloses all the features of the preamble of granted claim 1.

However, D1 does not disclose the characterising features of the claim, in summary, that the electric motor is disposed in the interior of the roller and arranged in a particular way. As already explained, the roller 28 of D1 is merely said to be electrically driven, from which no details of how the (implied) electric motor is arranged can be derived.

In the Board's view, the effect of mounting the electric motor inside the roller as claimed (cf. published patent specification, paragraph [0011], first sentence) is to achieve a compact drive arrangement. The Board does not consider the remaining effects listed in paragraph [0011] (avoidance of cost, complexity and maintenance) as stemming from the differing feature. Rather, these are the result of using an electric motor per se, which is already known from D1 (cf. grounds of appeal, point 2.2 "Objective problem").

Based on the technical effect identified by the Board (compact drive), the objective technical problem can be

formulated as how to implement the round baler of D1 so that the drive arrangement for its electrically driven stripping roll 28 is compact.

The skilled person would be aware of document D7 since it discloses a crop pick up "Ladevorrichtung" for harvesting machines, including round balers (see abstract and paragraph [0002]). D7 (see paragraph [0008]), like D1, proposes to replace a mechanical drive with an electrical drive and considers this as more compact. Furthermore, D7 proposes ways in which to implement such an electrical drive for a roller. Thus, in the Board's view, D7 provides a solution to the technical problem of achieving a compact drive for a roller.

- 3.1 The skilled person, with their eye focused on the objective technical problem, will therefore look to D7 to find how to implement the electrical drive of the drum 28 of D1 in a compact way.

D7 discloses (see figures 3 and 4) just two alternative arrangements for driving a roller with an electric motor. Both have a motor in the interior of the drum 3, so it would be immediately evident to the skilled person that they are both compact. Figure 3 shows an implementation with a motor having an external rotor electric motor 6' ("außenläufer Elektromotor"), and figure 4 an implementation with an internal rotor electric motor 6" ("innenläufer Elektromotor").

- 3.2 In the Board's view, in order to solve the objective technical problem, the skilled person will, as a matter of obviousness, select either one of these just two ways of implementing a compact motor drive proposed by D7, and use it to drive the roller 28 of D1.

- 3.3 The arrangement of figure 4 is described in paragraph [0021] (not paragraph [0017], which erroneously refers to figure 4). The motor 6" has a shaft 35. A radially extending disc is mounted near the right hand end of the shaft 35. The drum, in other words the shell of the roller 2, is supported on this disc, so that shaft and drum are fixed to each other ("die Trommel wird hierbei fest mit der beidseitig gelagerten drehbaren Achswelle verbunden"). Therefore, the radially extending disc is a supporting disc and is connected to the shell of the roller 2 just as defined in the characterising portion of claim 1.
- 3.4 Therefore, starting from D1 and faced with the objective technical problem, the skilled person would, as a matter of obviousness, use the drive arrangement of D7, figure 4 to drive the roller 28 of D1. In so doing they would arrive at the subject matter of claim 1.
- 3.5 In contrast to the respondent-proprietor's view, the Board considers that the skilled person would not reject using the drive arrangement of D7, figure 4, because it relates to a crop pick up and not to the scraping roller of a round baler. The skilled person has their mind focused on achieving a compact arrangement for a roller that is already described as having an electric drive, so they would look to D7 which discloses electrically driven rollers. In other words, the function that the roller performs is not central to the problem that the skilled person tries to solve. They would thus not reject considering the one or other drive because the roller it drives performs a different function.

3.6 Nor, in the Board's opinion, would the skilled person reject the drive arrangement of D7, figure 4, because, according to the respondent-proprietor, crop pick up rollers (cf. D7, figure 1, rollers 2, 18, 28 with their motors 6) are larger than the scraper roller 28 of D1 (cf. D1, figures 1 and 2).

It may be well be that the pick-up and pick-up conveyor rollers 2, 18 and 28 of D7 are larger than the scraper roller 28 of D1 (cf. D1, column 2, lines 38 to 43, lines 63 to 65 with figure 1, which shows pick-up/pick-up conveyor rollers 4 and 19 as well as the somewhat smaller scraper roller 28). However, nothing in D7 suggests that the drive arrangement of figure 4 would only be appropriate for rollers of certain sizes. Regarding adapting the drive of the motor 6" of the main pick up roller 2 to the differently sized rollers of the pick-up, [such as the smaller conveyor roller 18], D7 (see paragraph [0020], last sentence) states that the arrangements correspond, because the installation conditions are similar. This can but mean that the arrangements for different sized rollers are merely scaled to fit the roller in question. The Board sees no reason as to why the same installation conditions would not apply to the cylindrical roller 28 of D1 (cf. D1, figures 1 and 2). Thus, fitting the drive of D7, figure 4 with its motor 6" into D1's roller 28 would merely be a matter of scaling, as already known from D7. Such scaling belongs in the Board's view to the routine skills of the skilled person in this technical field.

3.7 The Board is also not convinced that the consideration that in D7 (see paragraph [0022] with figure 1) the roller of the scraping floor "Kratzboden 37" may not have an electric motor, as the respondent-proprietor

has speculated, would lead the skilled person to reject combining the teachings of D1 and D7 as explained above. It may well be that the roles played by the scraping floor 37 and the scraping roller 28 of D1 are comparable: both scrape or carry away excess material. However, whether or not the roller of the scraping floor 37 is fitted with an electric motor plays no role in considering how to solve the objective technical problem. As already explained this problem concerns how to implement driving D1's roller 28 with the electric motor it implicitly has, not whether or not to provide it with an electric motor.

3.8 Nor is the Board convinced that the skilled person would dismiss the idea of driving the scraping roller 28 of D1 with an internal motor because D1 mentions the possibility of driving the scraping roller from the redirecting roller with a chain (see D1, column 3, lines 19 to 25). As explained above, the skilled person does not start from this embodiment but from one in which the roller 28 is electrically driven by an electric motor. With their eye focused on the problem of providing a compact drive, the skilled person would dismiss an arrangement of an electric motor driving the roller via a chain (whether or not this is suggested in D1) in favour of the internally mounted electric motor they know from D7 (see figure 4), which can but be more compact than the former arrangement.

3.9 For all these reasons, the Board concludes that the subject matter of claim 1 as granted lacks an inventive step starting from D1 in combination with D7. Therefore the main request must fail.

4. Admissibility of auxiliary requests 1 and 2

4.1 According to Art. 12(2) RPBA, the statement of grounds of appeal and the reply must contain a party's complete case. They must set out clearly and concisely the reasons why it is requested that the decision under appeal be reversed, and should specify expressly all the facts, arguments and evidence. This provision provides a cut-off point after which any further submission is ipso facto late and subjected to the discretionary power of the Board. The intended overall effect of this article is to require the parties to present a complete case at the outset of the proceedings in order to provide the Board with an appeal file containing comprehensive submissions from each party and to prevent procedural tactical abuses (see Case Law of the Boards of Appeal, 8th edition, 2016 (CLBA), IV.C.1.3.8).

4.2 In the present case, the respondent-proprietor requested with their reply to the appeal (see letter of 13 February 2015, last two lines) consideration in the appeal proceedings of the auxiliary requests that were on file in the opposition proceedings (filed with letter of 18 June 2014), but were not examined by the opposition division. However, the respondent-proprietor filed no arguments in appeal as to why these requests would overcome the ground of appeal of lack of inventive step, should the main request fail, nor where there was a basis for the claims of these requests in the application as filed. By the same token, the appellant-opponent filed no reasons as to why these requests should not be allowable. However, their request for revocation of the patent implies that they do not consider them allowable.

4.3 The respondent-proprietor stated during the oral proceedings that they gave reasons for these requests when filing them before the opposition division. In their opinion, there had been no reason to further elaborate on them in the reply to the appeal, as the opposition division had held the main request to be allowable and had made no observations regarding the auxiliary requests. Nor was there any reason to comment upon them later, as the appellant-opponent had concentrated their submissions on the main request.

At the oral proceedings before the Board, the appellant-opponent raised no objections to the requests being admitted into the proceedings.

For these reasons, the Board decided to exercise its discretion under Articles 12(2) and 12(4) RPBA with Article 114(2) EPC by admitting the first and second auxiliary requests into the proceedings.

5. Remittal of the case for further prosecution

5.1 In accordance with Article 111(1) EPC, second sentence, the Board of Appeal may either exercise any power within the competence of the department which was responsible for the decision appealed or remit the case to that department for further prosecution.

5.2 In the present case, the opposition division allowed the main request (as granted) and therefore did not consider the auxiliary requests. As already explained, neither party has provided arguments for or against allowing the auxiliary requests.

5.3 Presenting such arguments for the first time during oral proceedings in appeal proceedings, could but

surprise both the other party and the Board. Furthermore, examining these may require considerable investigative effort. In view of this and in order to allow the parties consideration of the auxiliary requests before the first instance, which is in accordance with the wishes of both parties, the Board considers it appropriate to exercise its discretion under Article 111(1) EPC by remitting the case to the department of first instance for further prosecution.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the department of first instance for further prosecution.

The Registrar:

The Chairman:



G. Magouliotis

J. Wright

Decision electronically authenticated