DECISION
of 16 March 2004

Case Number: T 0231/02 - 3.2.7
Application Number: 97112822.8
Publication Number: 0808791
IPC: B65H 54/28
Language of the proceedings: EN
Title of invention: Thread package building
Patentee: FREEMAN, James Edward
Opponent: W. SCHLAFHORST AG & Co

Relevant legal provisions:
EPC Art. 100(c)

Keyword: "Added subject-matter (yes)"

Decisions cited: -

Catchword: -
**Case Number:** T 0231/02 - 3.2.7

**DECISION**
**of the Technical Board of Appeal 3.2.7**
**of 16 March 2004**

**Appellant:** FREEMAN, James Edward
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**Decision under appeal:** Decision of the Opposition Division of the European Patent Office posted 11 December 2001 revoking European patent No. 0808791 pursuant to Article 102(1) EPC.

**Composition of the Board:**

Chairman: A. Burkhart
Members: H. E. Felgenhauer
C. Holtz
Summary of Facts and Submissions

I. The appellant (patent proprietor) filed an appeal against the decision of the Opposition Division revoking the European patent No. 0808791.

The opposition was filed against the patent as a whole based on the grounds of opposition according to Article 100(a), 100(b) and 100(c) EPC.

The opposition division held that the ground of opposition according to Article 100(c) EPC prejudices the maintenance of the patent since the subject-matter of the patent extends beyond the content of the earlier application as filed.

From the documents introduced into the opposition proceedings document

D0: WO 92/08664

as the parent application for the patent in suit was considered in the oral proceedings.

II. Oral proceedings before the Board of Appeal were held on 16 March 2004.

(i) The appellant requested that the decision under appeal be set aside and that the patent be maintained as granted, alternatively with the claims according to one of the auxiliary requests 1 to 5, filed with letter of 13 February 2004.
The respondent (opponent) requested that the appeal be dismissed.

Claim 1 according to the main request (i.e. claim 1 as granted) reads as follows:

"1. A method of building thread (11) on a rotating package (12) by traversing the point of application of the thread axially relatively to the package, characterised by controlling package build by controlling the relationship between package rotation and traversing rate by a feedback arrangement controlling traversing rate."

III. In the annex to the summons to attend oral proceedings the Board referred to the fact that the patent in suit had been revoked based on the ground of opposition according to Article 100(c) EPC without the remaining grounds of opposition having been dealt with, indicating, that in the appeal proceedings only this ground of opposition would be considered.

The ground of opposition according to Article 100(c) EPC concerns essentially the characterising feature of claim 1, according to which package build is controlled "by controlling the relationship between package rotation and traversing rate by a feedback arrangement controlling traversing rate".

IV. The appellant argued essentially as follows:

(i) The feature concerned with respect to the ground of opposition according to Article 100(c) EPC defines in the method according to claim 1 that
the relationship between package rotation and traversing rate is controlled by a feedback arrangement controlling traversing rate. This feature and consequently the method according to claim 1 are directly and unambiguously derivable from the parent application, namely document D0, at least if the implicit disclosure of this document is taken into consideration.

(ii) Evaluating the content of document D0 in this respect, the disclosure of this document needs to be considered in its entirety. Thus besides claim 5 of this document, the portions of the description and the figures need to be considered which relate to the method and apparatus according to the invention in general, which is described as a method for building thread comprising dynamic control, whereas the method according to the prior art comprises only static control (in particular page 3, paragraph 2 to page 5, paragraph 3; Figures 1 to 5). Furthermore the portions of the description and the figures need to be considered which relate to specific embodiments of the invention and those which disclose specific methods of control including feedback arrangements (in particular the paragraph bridging pages 5, 6 in combination with page 7, paragraph 2; page 8, paragraph 2; page 14, paragraphs 2, 3 and the paragraph bridging pages 14 and 15 and Figures 1 to 3). In this context the portion of the description needs to be considered also, according to which a control means can comprise variable sensing means and a servo actuator in which an error signal in a feedback loop adjusts the
actuator's response to counteract operational loadings to which the actuator is subjected (in particular page 8, paragraph 2; paragraph bridging pages 8, 9).

(iii) Considering the content of document D0 appropriately, it is evident that the method according to claim 1 of the patent in suit is understood by the person skilled in the art as being at least implicitly disclosed, since on the one hand a method for building thread comprising a feedback arrangement is explicitly disclosed and since on the other hand it is obvious that the traversing rate, as one of the variables of the relationship between package rotation and traversing rate which is to be controlled and which needs to be monitored, e.g. to enable a control of the relationship between package rotation and traversing rate in accordance with the instantaneous position of the point of application (cf. page 5, paragraphs 1, 3), can furthermore be selected as the particular variable which is to be controlled via the feedback arrangement.

V. The respondent argued essentially as follows:

(i) The amendment of claim 5 of the parent application (document D0) resulting in the method of building thread according to claim 1 of the patent in suit comprising the relationship between package rotation and traversing rate being controlled by a feedback arrangement controlling traversing rate, extends beyond the content of document D0, since
such a feedback arrangement is neither explicitly nor implicitly disclosed.

(ii) With respect to a feedback arrangement in general two variables need to be distinguished, namely a variable to be monitored and controlled, for which an error signal between an actual value obtained from a sensor and a predetermined value is to be minimised, and an actuating variable which needs to be adjusted to compensate for the error of the control variable.

(iii) Within the general disclosure of document D0 relating to a feedback arrangement (claims 5, 6; paragraph bridging pages 5, 6; page 8, paragraph 2), the variable to be monitored and controlled is not specified. With respect to this variable it is merely indicated that it might be a constant value or a value which is itself dependent upon another variable, such as for example a function of the progress of build like a function of the package diameter (page 6, paragraph 2; page 8, paragraph 2).

(iv) According to the general disclosure of document D0 with respect to a feedback arrangement (claim 5; paragraph bridging pages 5 and 6; page 8, paragraph 2) the variable to be adjusted is defined as the relationship between package rotation and traversing rate.

(v) Concerning a specific feedback arrangement it is indicated within document D0 (paragraph bridging pages 14, 15; Figure 3), that one way to
dynamically control the traverse rate is by a feedback arrangement acting on the linear actuator to vary the traverse rate so as to maintain the tension sensed by a sensor substantially constant.

(vi) The method according to claim 1 of the patent in suit thus extends beyond the content of document D0 since for the feedback arrangement it is defined that the variable to be monitored and controlled is the traversing rate.

(vii) Furthermore the portion of document D0, indicating that the control means may comprise a servo actuator in which an error signal in a feedback loop adjusts the actuator's response to counteract operational loadings to which the actuator is subjected (paragraph bridging pages 8, 9), concerns obviously the type of actuator being utilised and thus does not relate to the manner in which, within the method of building thread, the relationship between package rotation and traverse rate is controlled.

Reasons for the Decision

1. Claim 1 of the patent in suit defines a method for building thread within which package build is controlled by controlling the relationship between package rotation and traversing rate by a feedback arrangement controlling traversing rate.
2. The ground of opposition according to Article 100(c) EPC concerns the feature of claim 1 defining that package build is controlled "by controlling the relationship between package rotation and traversing rate by a feedback arrangement controlling traversing rate", which according to the respondent and the opposition division extends beyond the extent of the parent application, namely document D0.

3. Concerning the meaning of this feature the Board, being in line with the common understanding of the expression "feedback arrangement" as referred to in the contested decision (reasons, No. 2), follows the explanation given by the respondent, according to which such an arrangement involves two variables, namely one which is to be monitored and controlled via an error determined between an actually measured value and a predetermined value for this variable and one which is adjusted in order to compensate for the error of the first mentioned variable.

Considering claim 1 of the patent in suit in accordance with this common understanding of a "feedback arrangement", the feature concerned is understood as defining a feedback arrangement, the purpose of which is to control the relationship between package rotation and traversing rate and which operates in that the traversing rate is controlled. Consequently the traversing rate is the variable to be monitored and compared with a predetermined value to determine an error signal for the traversing rate, whereas the relationship between package rotation and traversing rate is the variable to be adjusted for the error of the traversing rate being compensated.
4. Concerning the evaluation of the content of the parent application with respect to the feature concerned it is undisputed that besides claims 5 and 6 of document D0 also the entire disclosure of this document, and in particular the portions concerning the definition of the invention, the control of thread building and feedback, need to be considered, taking likewise account of the context between these various portions of disclosure.

5. Having regard to the portion of the disclosure defining the invention in general it is apparent that the inventive method as defined in document D0 comprises a dynamic control of the relationship between package rotation and traversing rate (cf. e.g. page 4, paragraphs 2, 3), as compared to the prior art method (page 3, paragraphs 2, 3 and the paragraph bridging pages 3, 4), for which it is indicated that it involves only static control (page 4, last paragraph).

With respect to this static control it is stated that a precision winding technique coupled with a microprocessor controlled arrangement is used, that alters the winding ratio progressively in small steps throughout the build (page 3, paragraph 2). Thus in connection with this prior art, and this applies likewise with respect to the remaining prior art methods referred to in document D0 (page 1, page 2 including the paragraph bridging pages 2 and 3), a method of building thread involving a feedback arrangement is not referred to.
Concerning dynamic control within a method of building thread according to the invention, in a manner similar to the description with respect to static control, it is referred to the "possibility of programming the arrangement to build packages" (page 13, paragraph 2).

Furthermore it is indicated that such a method can be one "comprising controlling the relationship between package rotation and traversing rate in accordance with the instantaneous position of the said point of application" (page 5, paragraph 1), "in accordance with the tension in the thread" (page 5, paragraph 2; page 15, paragraph 2 and the paragraph bridging pages 15, 16) and "in accordance with the tension in the thread and the instantaneous position of the said point of application" (page 5, paragraph 3).

Thus these portions relating to examples of how the dynamic control according to the invention can be performed likewise do not disclose that a feedback arrangement is involved.

Although the Board agrees with the appellant that a control utilising the instantaneous position of the point of application necessarily requires this point to be monitored, the conclusion does not necessarily follow, that in connection with the disclosure of such a monitoring, a feedback arrangement concerning the instantaneous position of the point of application, and thus of the traversing rate, is implicitly disclosed. The provision of a position transducer as disclosed in document D0 (paragraph bridging pages 15 and 16; figure 5) does not necessarily imply, without a further indication being given in this direction, that such a
transducer is part of a feedback arrangement, namely one in which the traverse rate is monitored. Moreover, the context in which this transducer is referred to as "a position transducer 57, which supplies a position signal to the controller 59 that is programmed with a tension regime for the traverse strokes ..." implies that this transducer is utilised in an arrangement other than a feedback arrangement.

6. Claims 5 and 6 as well as the portions of the disclosure of document D0 concerning a feedback arrangement likewise do not imply that package build is controlled by controlling the relationship between package rotation and traversing rate by a feedback arrangement controlling traversing rate.

According to the appellant it is essentially the disclosure of the paragraph bridging pages 5 and 6 and of page 7, paragraph 2 which, in context with the entire disclosure, discloses implicitly the provision of a feedback arrangement as defined in claim 1 of the patent in suit.

According to the description (page 7, paragraph 2) "in a method according to the invention, package rotation may be predetermined while traverse rate is controlled, or traverse rate may be predetermined while package rotation is controlled - or both traverse rate and package rotation may be controlled". As indicated above and as disclosed by the description preceding the portion referred to, a method according to the invention is one which comprises controlling the relationship between package rotation and traversing
rate (cf. e.g. page 5 and the paragraph bridging pages 5 and 6 and the independent claims 1 to 5 and 18).

In this context the portion of the description of page 7, paragraph 2 has to be understood as giving examples of how the relationship between package rotation can be controlled. Accordingly this can be done predetermining one of these two variables and controlling the remaining one or by controlling both variables. In addition to these possibilities this portion of the description does not add anything to the disclosure with respect to the specific manner in which the control is performed, once the individual variable to be controlled has been selected or it has been chosen to control both variables. Thus this portion of the description considered by itself cannot be considered as implicitly disclosing a feedback arrangement being utilised.

The portion of the description of the paragraph bridging pages 5 and 6 as well claims 5 and 6 are directed to a method according to the invention comprising a feedback arrangement. Accordingly the relationship between package rotation and traversing rate is controlled by a feedback arrangement sensing a variable and adjusting the said relationship so as to counteract any deviation of said variable from a predetermined value.

The predetermined value may be a function of the progress of the build, for example a function of package diameter (page 6, paragraph 2; claim 6).
From this disclosure, no indication can be derived for the traversing rate being the variable which is sensed and for which a predetermined value is given.

7. This likewise holds true when considering the dynamic control of the traverse rate according to Figure 3 and the associated description (page 14, paragraphs 3 and 4; page 15, paragraph 1). According to this dynamic control the traverse rate is a function of the displacement or stroke, in that instead of being constant the traverse rate increases slightly in the middle of the stroke (page 14, paragraph 3).

Concerning the manner in which such a dynamic control is performed, a feedback arrangement, acting on a linear actuator to vary the traverse rate so as to maintain the tension sensed by a sensor substantially constant, is referred to, as well as an alteration of the traverse rate in a programmed fashion (page 14, last paragraph).

Thus these examples of dynamic control of the traverse rate neither explicitly nor implicitly disclose a method as defined by claim 1 of the patent in suit, according to which a feedback arrangement controlling traversing rate is utilised.

Consequently, due to lack of a disclosure with respect to the feedback arrangement as defined by claim 1 of the patent in suit in each of the portions of the description referred to above, likewise their combined consideration cannot lead to this feedback arrangement being disclosed by document D0.
8. Finally, the portion of the description disclosing that the control means may comprise an electrically controlled actuator, which may be a linear or a rotary actuator or which may be a servo actuator in which an error signal in a feedback loop adjusts the actuator's response to counteract operational loadings to which the actuator is subjected (paragraph bridging pages 8 and 9), concerns possible types of electrically controlled actuators which can be employed. The feedback loop referred to in connection with a servo actuator clearly relates to the response of the actuator as such and consequently does not disclose the method according to claim 1 in which the relationship between package rotation and traversing rate is controlled by a feedback arrangement controlling traversing rate.

9. Since the method of claim 1, according to which the relationship between package rotation and traversing rate is controlled by a feedback arrangement controlling traversing rate, is neither explicitly nor implicitly disclosed in the parent application according to document D0, the subject-matter of the European patent extends beyond the content of the application as filed (Article 100(c) EPC).

10. This applies correspondingly with respect to the auxiliary requests 1 to 5, since the feature concerning the feedback arrangement is comprised in claim 1 of each of these auxiliary requests.
Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: 

The Chairman:

D. Magliano

A. Burkhart