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D E C I S I O N
of 8 February 2005

Case Number: T 0025/03 - 3.2.6

Application Number: 94106603.7

Publication Number: 0622481

IPC: D01H 13/22

Language of the proceedings: EN

Title of invention:

Diagnosing method of yarn monitor and apparatus thereof

Patentee:

Murata Kikai Kabushiki Kaisha

Opponents:

Saurer GmbH & Co. KG
Uster Technologies AG

Headword:

-

Relevant legal provisions:

EPC Art. 84, 123(2)
EPC R. 57a

Keyword:

"Amendments - caused by grounds of opposition (no)"
"Amendments - clarity ((no), main request)"
"Amendments - inadmissible extraction of isolated features
(first auxiliary request)"
"Late filed request - exercise of discretion (second auxiliary
request)"

Decisions cited:

T 1067/97, T 0153/85, T 0655/93

Catchword:

-



Case Number: T 0025/03 - 3.2.6

D E C I S I O N
of the Technical Board of Appeal 3.2.6
of 8 February 2005

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Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 15 October 2002
revoking European patent No. 0622481 pursuant
to Article 102(1) EPC.

Composition of the Board:

Chairman: P. Alting van Geusau
Members: G. Pricolo
R. T. Menapace

Summary of Facts and Submissions

I. The appeal is from the decision of the Opposition Division posted on 15 October 2002 to revoke European patent No. 0 622 481, granted in respect of European patent application No. 94 106 603.7.

II. In the decision under appeal the Opposition Division considered that the patentee's request to maintain the patent in amended form on the basis of an amended claim 1 replacing claims 1 and 4 of the patent as granted together with the remaining claims thereof was not allowable due to lack of novelty of the subject-matter of claim 3 over the prior art disclosed by document:

D1: CH-A-678 172

III. The appellant (patentee) lodged an appeal, received at the EPO on 20 December 2002, against this decision and simultaneously paid the appeal fee. With the statement setting out the grounds of appeal, received at the EPO on 25 February 2003, the appellant filed new claims 1 to 7. Claim 1 corresponded to claim 1 of the request on which was based the decision of the Opposition Division.

IV. In a communication accompanying the summons for oral proceedings pursuant to Article 11(1) Rules of Procedure of the boards of appeal the Board expressed the preliminary opinion that it would appear that claim 1 did not meet the requirements of Article 84 EPC: it was not clear that each of the plurality of yarn detectors was associated to one of the spinning units of a spinning machine and it was not clear how was made

the decision on whether the abnormal state was caused by the yarn detector itself or by other factors.

- V. In response to the communication of the Board, the appellant filed with letter dated 10 January 2005 an amended claim 1 and cancelled claims 4 to 7 of the previous request on file.
- VI. Oral proceedings, at the end of which the decision of the Board was announced, took place on 8 February 2005.

The appellant requested that the decision under appeal be set aside and that the patent be maintained on the basis of claims 1 to 3 of the main request filed with letter dated 10 January 2005 or on the basis of claim 1 in accordance with the first and second auxiliary request filed during the oral proceedings.

The respondents requested that the appeal be dismissed.

- VII. Claim 1 of the main request reads as follows:

"1. Control method for a spinning machine comprising a number of spinning units each of which is associated with a yarn detector continuously monitoring a yarn supplied by the respective spinning unit, wherein an abnormal state diagnosis of each yarn detector is carried out by comparing the monitoring result of the yarn detector as the diagnosis object with the monitoring results of the other yarn detectors and decision is effected whether the abnormal state is caused by the yarn detector itself as the diagnosis object or the abnormal state is caused by other factors such as yarn quality, characterized in that from the

yarn monitoring result of each yarn detector the yarn diameter average value and the yarn evenness are derived, and the yarn diameter average value and the yarn evenness derived from the monitoring result of the yarn monitor as the diagnosis object are compared with the yarn diameter average value and the yarn evenness derived from the monitoring results of the other yarn detectors."

Claim 1 of auxiliary request 1 differs from claim 1 of the main request in that it is directed to a "control method **of a yarn monitoring** for a spinning machine" and in that it includes the following final sentence:

"if a yarn diameter average value deviation is detected but not a yarn evenness deviation the abnormal state of the yarn detector as the diagnosis object is detected".

Claim 1 of auxiliary request 2 differs from claim 1 of auxiliary request 1 by the insertion, immediately after the expression "characterized in that", of the following wording:

"a yarn breaking signal is used to detect a zero point deviation of the yarn monitor as the diagnosis object".

VIII. The submissions of the appellant in support of its requests can be summarized as follows:

Claim 1 as amended related to a "control method for a spinning machine", rather than to a "control method of a yarn monitoring" as granted claim 1. This amendment allowed an easier drafting of a claim clearly defining that each spinning unit of a spinning machine was associated with a yarn detector.

For a skilled person it was immediately clear from the wording of claim 1 that the manner of making the decision on whether a yarn detector was in an abnormal state corresponded to that shown in detail in Figure 4 and explained in the relevant passages of the description.

Claim 1 did not include the step concerning the zero point deviation shown in Figure 4. However, it was clear that this step was distinct from the other steps shown in Figure 4 because the zero point deviation related to a necessary initial adjustment of the yarn detector whilst the other steps of claim 1 related to the detection of a gain error and thus of a malfunction of the yarn detector. Furthermore, the adjustment of the zero point was well known in the art.

Claim 1 of the first auxiliary request was directed to "a control method of a yarn monitoring for a spinning machine" and was as such in conformity with the wording of claim 1 of the patent as granted. By additionally defining "if a yarn diameter average value deviation is detected but not a yarn evenness deviation the abnormal state of the yarn detector as the diagnosis object is detected" it unambiguously specified the manner of making the decision on whether a yarn detector was in an abnormal state. In this respect, the definition of claim 1 also clearly reflected the sequence of steps shown in Figure 4.

Claim 1 of the second auxiliary request additionally included the feature concerning the detection of the zero point deviation and thus reflected the complete solution shown in Figure 4 of the patent in suit.

IX. The respondents essentially agreed with the following objections raised by the Board during the oral proceedings with respect to the amendments made to claim 1 of the main request:

The amendment of claim 1 consisting in replacing "control method of a yarn monitoring" with "control method for a spinning machine" was not occasioned by a ground for opposition and therefore did not meet the requirements of Rule 57a EPC. Furthermore, it introduced a lack of clarity, contrary to Article 84 EPC, because although directed to a control method for a spinning machine, claim 1 did not define any steps concerning the control of the spinning machine but only the steps concerning the monitoring and diagnosing of yarn detectors. Hence, it was not clear whether claim 1 sought protection for a method of controlling a spinning machine or rather for a control method of a yarn monitoring, as granted claim 1. Furthermore, the characterising portion of claim 1 referred to a step in which the parameters yarn diameter average value and yarn evenness of the yarn detectors were evaluated and to a further step in which the parameters evaluated for a yarn detector were compared with the corresponding parameters evaluated for other yarn detectors, but the claim failed to define how the comparison was used for deciding on an abnormal state of said one yarn detector.

Respondent II further argued that claim 1, which was clearly restricted to the embodiment according to the flow chart of Figure 4 of the patent in suit, did not include the step concerning the zero point deviation

shown in Figure 4. Since in the application as filed there was no basis for omitting this step from the specific combination of the embodiment of Figure 4, claim 1 did not meet the requirements of Article 123(2) EPC. This objection also applied to claim 1 of the first auxiliary request. The latter further contravened Article 123(2) EPC because it did not define the specific sequence of steps for deciding on the presence of an abnormal state of a yarn detector shown in Figure 4 and described in the relevant passages of the specification.

Reasons for the Decision

1. The appeal is admissible.
2. *Main request*
 - 2.1 In the Board's view the amendment of claim 1 consisting in replacing the expression "control method of a yarn monitoring" of claim 1 as granted with "control method for a spinning machine" is not occasioned by a ground for opposition (the patent was opposed for lack of novelty and inventive step) and therefore does not meet the requirements of Rule 57a EPC. In fact, the proposed amendment does not serve to further delimit the claimed invention over the prior art since there is no step in claim 1 which is concerned with the control of the spinning machine. The steps of the method of claim 1 exclusively relate to the monitoring of yarn detectors and diagnosis thereof and there is no implicit or explicit reference to a control of the spinning machine carried out on the basis of any of these steps.

2.2 Furthermore, due to the above-mentioned absence of any steps concerning the control of the spinning machine, it is not clear whether claim 1 seeks protection for a method for controlling a spinning machine or for a method of diagnosing an abnormal state of a yarn monitoring (in accordance with the definition of claim 1 of the patent as granted) which is independent from the control of the spinning machine. Therefore, since claim 1 does not clearly define the matter for which protection is sought, it does not meet the requirements of Article 84 EPC.

2.3 Since claim 1 already fails for these reasons, it is not necessary to consider the other objections raised in respect of the main request.

3. *First auxiliary request*

3.1 In analogy to claim 1 of the patent as granted, claim 1 of the first auxiliary request is directed to a "control method of a yarn monitoring". Therefore, the above conclusions in respect of the main request do not apply for the first auxiliary request.

3.2 Claim 1 includes the features of claims 1, 2 and 5 of the application as filed, except the feature of claim 5 concerning the detection of a zero point deviation. It further includes the feature: "if a yarn diameter average value deviation is detected but not a yarn evenness deviation the abnormal state of the yarn detector as the diagnosis object is detected".

3.3 The appellant referred to the embodiment of figure 4 and the corresponding description in the application as filed as forming the basis for introducing this latter feature in claim 1. Figure 4, which is a flow chart showing the various steps of the method, discloses that in the process of detecting an abnormal state of a yarn detector (which results in performing step #9: "display of a gain error of a yarn monitor"), the step of deciding whether the yarn evenness is deviated from that of other units (step #8) is carried out only if the result of the preceding step (step #3), consisting in deciding whether the yarn diameter average value of the yarn detector as the diagnosis object is deviated from the yarn diameter average value of other detectors, is positive ("yes"). This is confirmed by the corresponding description (see column 5, lines 29 to 41 of the patent application as published). Thus figure 4 and the corresponding description of the application as filed disclose a specific combination of steps for detecting the abnormal state of the yarn detector, according to which if a yarn diameter average value deviation is detected then it is decided whether there is a yarn evenness deviation, and if there is no yarn evenness deviation, then the abnormal state of the yarn detector as the diagnosis object is detected.

According to the established case law of the boards of appeal, if a claim is restricted to a preferred embodiment, it is normally not admissible under Article 123(2) EPC to extract isolated features from a set of features which have originally been disclosed in combination for that embodiment. Such kind of amendment would only be justified in the absence of any clearly

recognisable functional or structural relationship among said features (see e.g. T 1067/97, point 2.1.3).

In the present case, claim 1 defines the steps of the embodiment according to Figure 4 of detecting a yarn diameter average value and of detecting a yarn evenness deviation, but not in the specific combination shown in Figure 4. In fact, claim 1 leaves open which step is carried out first: according to the wording of claim 1, the step of detecting a yarn evenness deviation can be carried out before, after, or simultaneously with the step of detecting a yarn diameter average value deviation. These two steps are therefore extracted as isolated features from the specific combination disclosed in Figure 4.

The skilled reader would consider the specific sequence of steps disclosed in Figure 4 as essential for obtaining the desired result of deciding whether the abnormal state is caused by the yarn detector itself as the diagnosis object or the abnormal state is caused by other factors such as yarn quality (see claim 1). Indeed, it is only on the basis of a positive result ("yes") of step #3 that a further method step (#8) is carried out with the aim of deciding whether there is an abnormal state caused by the yarn detector itself; in case of a negative result ("no") of step #3, such an abnormal state is immediately excluded and other steps of the method are carried out with the aim of deciding whether there is an abnormal state of the yarn quality (step #4 followed by step #5 or #6).

3.4 Therefore, since claim 1 results from the extraction of isolated steps from the specific combination disclosed

as essential in the embodiment of Figure 4, and since the appellant did not refer to other parts of the application as filed that could support the proposed amendment, nor have such parts been identified by the Board, claim 1 as amended in accordance with the first auxiliary request does not meet the requirements of Article 123(2) EPC.

4. *Second auxiliary request*

According to the established case law of the boards of appeal (see e.g. T 153/85, OJ EPO 1988, 001; T 655/93) when deciding an appeal during oral proceedings, a Board of Appeal may refuse to consider alternative claims which have been filed at a late stage, e.g. during the oral proceedings, if such claims are not clearly allowable.

Claim 1 of the second auxiliary request differs from claim 1 of the first auxiliary request by the addition of a step concerning the detection of a zero point deviation of the yarn monitor as the diagnosis object. This amendment does not introduce further limitations in respect of the combination of the step of detecting a yarn diameter average value and the step of detecting a yarn evenness deviation. Therefore, the amendments made to claim 1 of the second auxiliary request do not remove the above-mentioned defects of claim 1 of the first second auxiliary request.

Accordingly, since claim 1 of the second auxiliary request has been filed at a late stage, namely late during the oral proceedings before the Board of Appeal,

and since it is not clearly allowable, it is not admitted into the appeal proceedings.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

U. Bultmann

P. Alting van Geusau