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Datasheet for the decision of 8 December 2009

Case Number: T 0413/08 - 3.2.05

Application Number: 00107942.5

Publication Number: 1046498

IPC: B41F 13/00

Language of the proceedings: EN

Title of invention:
Sheet-fed printing machine including numbering boxes

Patentee:
Komori Corporation

Opponent:
KBA-GIORI S.A.

Headword:
-

Relevant legal provisions:
EPC Art. 56, 83, 112(1)(a)

Relevant legal provisions (EPC 1973):
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Keyword:
"Sufficiency of disclosure (yes)"
"Inventive step (yes)"
"Referral to Enlarged Board of Appeal (no)"

Decisions cited:
T 0654/92, T 0691/94, T 0730/05, T 1449/05, T 1554/05, T 0211/06

Catchword:
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Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 0413/08 **-** 3.2.05

D E C I S I O N
of the Technical Board of Appeal 3.2.05
of 8 December 2009

Appellant: (Patent Proprietor)
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Decision under appeal: **Decision of the Opposition Division of the European Patent Office posted 11 January 2008 revoking European patent No. 1046498 pursuant to Article 102(1) EPC 1973.**

Composition of the Board:

Chairman: W. Zellhuber
Members: P. Michel
E. Lachacinski

Summary of Facts and Submissions

I. The appellant (patent proprietor) lodged an appeal against the decision of the Opposition Division revoking European Patent No. 1 046 498 on the ground of Article 56 EPC.

II. Oral proceedings were held before the Board of Appeal on 8 December 2009.

The appellant requested that the decision under appeal be set aside and that the patent in suit be maintained as granted.

The respondent (opponent) requested that the appeal be dismissed. In the event that the Board should be of the opinion that the machine referred to in paragraphs [0002] to [0006] of the patent in suit does not constitute prior art, it is further requested that the two questions cited on page 11 of the submission submitted on 31 October 2008 be referred to the Enlarged Board of Appeal.

III. Claim 1 of the patent in suit as granted reads as follows:

"1. A printing machine comprising:

a rotatable impression cylinder (22) which has a plurality of effective surfaces (La) for holding a sheet-like material (100) along a peripheral direction at a predetermined interval;
a first printing portion (23) which is oppositely brought into contact with said impression cylinder(22)

and applies a printing to said sheet-like material (100);

a second printing portion (25) which is oppositely brought into contact with said impression cylinder (22) in a downstream side in a rotational direction of said impression cylinder (22) with respect to an oppositely contacting position of said first printing portion (23) with said impression cylinder (22) and applies a printing to said sheet-like material (100);

a number printing portion (27) which is oppositely brought into contact with said impression cylinder (22) in a downstream side in the rotational direction of said impression cylinder (22) with respect to an oppositely contacting position of said second printing portion (25) with said impression cylinder (22) and applies a number printing to said sheet-like material (100); and

a transfer cylinder (29) which is oppositely brought into contact with said impression cylinder (22) in a downstream side in a rotational direction of said impression cylinder (22) with respect to an oppositely contacting position of said number printing portion (27) with said impression cylinder (22) and receives said sheet-like material (100) from said impression cylinder (22),

characterized in that said first printing portion (23), said second printing portion (25), said number printing portion (27) and said transfer cylinder (29) are respectively arranged so that a transfer distance (L1) of said sheet-like material (100) which is performed by said impression cylinder (22) between the oppositely contacting position between said first printing portion (23) and said impression cylinder (22) and the oppositely contacting position between said second

printing portion (25) and said impression cylinder (22) has a length equal to or more than a length (L0) in a transfer direction of the printing surface of said sheet-like material (100), so that printing at the second printing portion (25) is performed after completion of the printing at the first printing portion (23), a transfer distance (L2) of said sheet-like material (100) which is performed by said impression cylinder (22) between the oppositely contacting position between said number printing portion (27) and said impression cylinder (22) and the oppositely contacting position between said transfer cylinder (29) and said impression cylinder (22) has a length equal to or more than the length (L0) in a transfer direction of the printing surface of said sheet-like material (100), so that the sheet-like material is transferred to the transfer cylinder (29) after completion of number printing on the number printing portion,

and a transfer distance (L3) of said sheet-like material (100) which is performed by said impression cylinder (22) between the oppositely contacting position between said first printing portion (23) and said impression cylinder (22) and the oppositely contacting position between said number printing portion (27) and said impression cylinder (22) has

a length equal to or less than a length (La + 2Lb) obtained by adding twice a length (Lb) between said adjacent effective surfaces of said impression cylinder (22) to a length (La) of said effective surface."

IV. The following documents have been cited in the appeal proceedings:

D1: DE-A-21 14 416
D2: GB-A-319,763
D3: DE-A-42 18 422
D4: WO-A-97/02143
D5: GB-A-259,157

V. The appellant argued substantially as follows in the written and oral procedure:

The skilled reader of the patent in suit is capable of carrying out the invention as defined in claim 1 whilst avoiding absurd arrangements. The disclosure of the patent in suit as a whole is sufficient to enable the invention to be carried out across the entire scope of claim 1.

The machine described as prior art in the patent in suit at paragraphs [0002] to [0006] was mentioned in error, should not have been referred to as being conventional, and does not belong to the prior art.

The case law of the Boards of Appeal is consistent and states that if an applicant or patent proprietor does not resile from a statement of prior art or only attempts to resile from a statement of prior art too late, then the acknowledged prior art is regarded as forming part of the state of the art. Otherwise it does not form part of the state of the art. A referral to the Enlarged Board of Appeal, as requested by the respondent is thus not necessary.

Claim 1 specifies that the following three relationships are simultaneously met:

(a) $L1 \geq L0$
(b) $L2 \geq L0$, and
(c) $L3 \leq La + 2Lb$.

The first of these features ensures that printing at the second printing portion is performed after completion of the printing at the first printing portion and is thereby not affected by vibration.

The second of these features ensures that the sheet-like material is only transferred to the transfer cylinder after completion of number printing on the number printing portion, so that number printing is not affected by the transfer cylinder.

By virtue of the third feature, when poor number transfer occurs, it is possible to prevent printing of subsequent sheets by separation of the first and second printing portions from the cylinder. The amount of maculature resulting from number transfer failure or poor number transfer can thus be reduced.

The prior art does not provide a motivation for the person skilled in the art to provide a machine combining these three features, so that the subject-matter of claim 1 involves an inventive step.

VI. The respondent argued substantially as follows in the written and oral procedure:

The patent in suit does not disclose the relationship between the lengths L0 and La which are intended to characterise the printing machine. The relationship between the lengths L1, L2 and La (or Lb) and between the lengths L3 and L0 is thus unclear. In addition, the length L0 is a characteristic of the printed sheet and not of the machine.

The conditions relating to the positioning of the first printing portion (23), the second printing portion (25), the number printing portion (27) and the transfer cylinder (29) around the impression cylinder (22) are not sufficiently defined.

In the absence of the features specified in claims 2 and 4 of the patent in suit, the subject-matter of claim 1 is not sufficiently disclosed over its entire scope. Thus, if the first printing portion (23), the second printing portion (25) and the number printing portion (27) were multiple cylinders, the specified inequalities could not be attained. Similarly, the subtended angle between the first printing portion (23) and the number printing portion (27) at the centre of the impression cylinder must be equal to or less than 180°.

The disclosure of the patent in suit is thus not sufficient to enable the invention to be carried out across the entire scope of claim 1.

The description in the patent in suit at paragraphs [0002] to [0006] relates to a "conventional printing machine" which forms part of the state of the art in accordance with Article 54(2) EPC (see also paragraph [0016]). A distinction must be drawn between the text of the application, which does not form part of the prior art and the machine described therein which does. The statement of the appellant in the statement of grounds is regarded as referring to the application and not the machine described therein. In particular, decisions T 1449/05 and T 1554/05 should be followed.

In the event that the board comes to the conclusion that the machine described in the patent in suit at paragraphs [0002] to [0006] does not form part of the prior art, the following questions should be submitted to the Enlarged Board of Appeal:

"1. Insofar as an applicant or patent proprietor indicates that a state of the art is known in the description of an application and it constitutes the closest prior art on which the technical problem to be solved is based, is it admissible to consider that this state of the art forms part of the state of the art in the sense of Article 54(2) EPC?"

"2. If the answer to this question is no, how should the state of the art acknowledged by the applicant or patent proprietor as well as the technical problem to be solved based on this prior art be regarded?"

These questions would resolve the conflict between the decisions of the Boards of Appeal as set out in the submission of 6 November 2009 as well as with the

Guidelines for Examination. The statement of the appellant at the oral proceedings before the Board, in which it was denied that the description in the patent in suit at paragraphs [0002] to [0006] relates to a prior art machine, is too late.

The closest prior art is the prior art acknowledged in the patent in suit. However, if this is not accepted by the Board as forming part of the prior art, document D1 may be regarded as representing the closest prior art. As shown in the sole figure of document D1, the angle subtended between the printing cylinder (4) and the numbering device (10) at the centre of the impression cylinder (3) is less than 180°. The ratio of the diameter of the printing cylinders (4,5) and the impression cylinder (3) is 2:1. Thus, in addition to the features of the preamble of claim 1, it discloses a machine whose transfer distance (L3) is as defined in claim 1.

Document D2 suggests that the distance between the printing cylinders should be so large, that the printing by the second cylinder only commences after printing by the first cylinder is completed (see page 1, lines 25 to 44 and 79 to 95). In addition to the illustrated two colour printing machine, document D2 also relates to a three colour printing machine (see page 2, lines 7 to 10).

Document D4 suggests that the distance between the last printing unit and the transfer cylinder should be greater than the length of the largest format to be printed (see page 10, lines 12 to 18).

It thus does not involve an inventive step to incorporate these features into the machine of document D1, thereby resulting in a machine as specified in claim 1 of the patent in suit.

Reasons for the Decision

1. Sufficiency of disclosure (Article 83 EPC)

The respondent has pointed out that the choice of certain values for the lengths L3 and L2 are impossible to put into practice. However, the Board is of the opinion that the person skilled in the art would be capable of avoiding these absurd constructions. Specifically, the number printing portion (27) must be sufficiently spaced from the second printing portion (25) as to allow both elements to function properly, and the transfer cylinder (29) must be sufficiently spaced from the first printing portion (23) so as to allow paper feed to the first printing portion (23). Whilst these dimensions are not specified in claim 1, it would be immediately apparent to the person skilled in the art that such practical considerations must be taken into account in the design of the printing machine.

In claim 1, the length La is defined as being the length of the effective surface of the impression cylinder and L0 is defined as being the length of the printing surface of the sheet-like material. It is not necessary to define the relationship between these two dimensions in order to be able to carry out the invention.

In addition, the person skilled in the art would be capable of specifying a suitable diameter for the impression cylinder, the first and second printing portions (23, 25), and the number printing portion (27).

The disclosure of the patent in suit is thus sufficiently clear and complete as to enable the person skilled in the art to carry out the invention, that is, to produce a printing machine suitable for printing a sheet having a specified length of printing surface (L0), the machine having the dimensions specified in claim 1 and solving the problems as set out in paragraphs [0010] and [0011] of the patent in suit. The requirements of Article 83 EPC are accordingly satisfied.

2. State of the art and request to submit questions to the Enlarged Board of Appeal

In the written grounds of appeal, under point (2) of the reasons, the appellant resiled from the indication of background art as set out in the patent in suit. The Board is of the opinion that, under these circumstances, and in the absence of any evidence to the contrary, the printing machine described in the patent in suit in paragraphs [0002] to [0006] cannot be regarded as having been made available to the public before the priority date of the patent in suit (see paragraph 3.1.1 below). Nevertheless, it is not considered necessary or appropriate to refer the questions to the Enlarged Board of Appeal in accordance with Article 112(1)(a) EPC as requested by the respondent (see paragraph VI above).

As stated in decision T 730/05 at section 3.2, last sentence, and in decision T 1554/05 at section 2.1, penultimate sentence, "the other relevant cases of which the board is aware, dealing mainly with the question of whether an applicant is allowed to resile from its indication of background art, either implicitly or explicitly take the view that, if not resiled from or clearly not prior art for other reasons, it may be relied upon as prior art (see T 654/92, T 691/94, T 1449/05 and T 211/06, all not published)."

The respondent relied upon two cases in particular. In case T 1554/05 (see point 2.1), the appellant did not resile from the indications of background art in the description. In case T 1449/05, the respondent patent proprietor attempted to resile from his admission of prior art nearly at the end of oral proceedings. Admission of this resilement would have required the adjournment of the oral proceedings to allow the appellant opponent to search for adequate evidence that substantiates his allegations (point 2.8). The present case is thus distinguished from these cases in that the appellant resiled from an admission of prior art at an early point in the appeal proceedings.

In the present case, the appellant stated in his grounds of appeal in reaction to statements contained in the decision under appeal, that "document D0 does not belong to the prior art according to Article 54(2) EPC" and stated that there was no objective evidence that the content described in document D0 was made available to the public before the date of filing of the patent in suit. It was suggested on behalf of the

respondent that it was only at the oral proceedings before the board that the appellant properly resiled from the indication of background art in the description. This is not accepted. The statements by the appellant under point (2) of the reasons contained in the written grounds of appeal are considered to constitute an unambiguous statement that the information concerning printing machine contained in paragraphs [0002] to [0006] of the patent in suit was not available to the public before the date of filing.

There is thus no contradictory case law in respect of the status of an acknowledgement of prior art. In the absence of any indication to the contrary, an acknowledgement of prior art by a patent proprietor may be accepted at face value. If a patent proprietor resiles from an acknowledgement of prior art at a point in time which does not give rise to any procedural problems, the acknowledgement may no longer be relied upon.

In the present case, the patent proprietor has resiled from its indication of background art in due time, so that, in the absence of any evidence to the contrary, it cannot be assumed that the acknowledged device was, in fact, made available to the public before the priority date of the patent in suit.

Consequently, the printing machine described in the patent in suit in paragraphs [0002] to [0006] does not form part of the prior art.

3. Inventive Step

3.1 Closest prior art

The closest prior art is represented by document D1. This document discloses a printing machine having all the features specified in the preamble of claim 1. In addition, in the machine illustrated in the sole figure of the drawings, the transfer distance around the impression cylinder (3) between said first printing portion (4) and the number printing portion (10) is equal to or less than the length obtained by adding twice the length between adjacent effective surfaces of the impression cylinder (3) to the length of the effective surface. This is apparent from the sole figure of document D1, in which the impression cylinder is shown as having approximately twice the diameter of the offset cylinders (6,7). It follows that the impression cylinder in the illustrated embodiment bears two effective surfaces, whereby an effective surface together with the length between the effective surfaces occupies half the circumference of the impression cylinder.

The subject-matter of claim 1 is distinguished from the disclosure of document D1 in that the transfer distance between the first and second printing portions and the transfer distance between the number printing portion and the transfer cylinder are equal to or more than the length of the printing surface of the sheet-like material.

3.2 Problem to be solved

The features which distinguish the subject-matter of claim 1 from the disclosure of document D1 prevent printing at the second printing portion from being adversely affected by printing at the first printing portion and number printing from being adversely affected by tension on the sheet applied by the transfer cylinder.

The problem to be solved can thus be regarded as being to improve printing quality and thereby reduce the amount of maculature.

3.3 Solution

Document D2 relates to a multi-colour printing machine in which several offset cylinders cooperate with a single impression cylinder (see page 1, lines 10 to 17 and the figure). In order to avoid interference between the printing operations, document D2 suggests that the transfer distance between adjacent offset cylinders should be so large that printing of a colour should only start after the printing of the previous colour is completed (page 1, lines 18 to 24). As noted at page 2, lines 7 to 10, the invention may be applied not only to the two colour machine illustrated in the figure, but also to a three colour machine, although there is no indication as to how this should be achieved.

If the teaching of document D2 is to be applied to the machine of document D1, not only the spacing between the cylinders (6,7) should be increased, but also the spacing between the cylinder (7) and the number

cylinder (10) should be increased, insofar as this is practically feasible.

Document D4 also relates to an offset printing machine in which several blanket cylinders cooperate with a single impression cylinder. In order to avoid the action of the gripper system of the transfer system which removes paper sheets from the impression cylinder interfering with the printing operation at the last offset cylinder, document D4 teaches that the spacing between the last blanket cylinder and the transfer cylinder should exceed the length of the paper sheets (page 10, second paragraph).

Thus, if applied to the machine of document D1, the teaching of documents D2 and D4, which do not concern printing machines having numbering devices, suggests that the transfer distance between the cylinders (6) and (7), between the cylinder (6) and the number cylinder (10), and between the number cylinder (10) and the transfer cylinder (29) should all be at least the length of the printing surface. This, however, is not feasible.

In particular, none of the prior art documents discloses the desirability of arranging the spacing between the first printing portion and the number printing portion such that, when poor number transfer occurs, it is possible to prevent printing of subsequent sheets by separation of the first and second printing portions from the cylinder. The amount of maculature resulting from number transfer failure or poor number transfer can thus be reduced (see also paragraphs [0027] to [0029] of the patent in suit).

Whilst, as noted above under point 3.1, the board is of the opinion that the specified spacing between the first printing portion and the number printing portion is present in the machine illustrated in the sole figure of document D1, document D1 nowhere refers to this feature. Thus, the person skilled in the art, applying the teaching of documents D2 and D4 to the machine of document D1 would see no reason to restrict the spacing between the first printing portion and the number printing portion, whilst increasing the spacing between the first and second printing portions, the number printing portion and the transfer cylinder.

In addition, the remaining documents cited in the appeal procedure, documents D3 and D5, do not hint at the solution specified in claim 1 of the patent in suit.

3.4 The subject-matter of claim 1 thus involves an inventive step. Claims 2 to 4 are directly or indirectly dependant from claim 1 and relate to preferred features of the printing machine. The subject-matter of these claims thus similarly involves an inventive step.

Order

For these reasons it is decided that:

The decision under appeal is set aside.

The patent is maintained unamended.

The Registrar: The Chairman:

N. Maslin W. Zellhuber