DECISION
of 25 November 2003

Case Number: T 0779/01 - 3.2.5
Application Number: 93111825.1
Publication Number: 0581212
IPC: B41F 27/00
Language of the proceedings: EN

Title of invention:
Plate mounting apparatus for printing press

Patentee:
Komori Corporation

Opponent:
MAN Roland Druckmaschinen AG
Koening & Bauer Aktiengesellschaft
Heidelberger Druckmaschinen AG

Headword:

Relevant legal provisions:
EPC Art. 54, 56, 123(3)

Keyword:
"New ground of opposition not admissible without the consent of the respondent"
"Public prior use not proved up to the hilt"
"Extension of the protection conferred (no)"
"Novelty and inventive step (yes)"

Decisions cited:
G 0009/91, T 0472/92

Catchword:
-
Case Number: T 0779/01 - 3.2.5

**DECISION**

of the Technical Board of Appeal 3.2.5

of 25 November 2003

**Appellant I:**
Opponent 02
Koenig & Bauer Aktiengesellschaft
Planeta-Bogenoffsetmaschinen
Friedrich-List-Str. 47-49
D-01445 Radebeul (DE)

**Appellant II:**
Opponent 03
Heidelberger Druckmaschinen AG
Kurfürsten-Anlage 52-60
D-69115 Heidelberg (DE)

**Party as of right:**
Opponent 01
MAN Roland Druckmaschinen AG
Mühlheimer Strasse 341
D-63075 Offenbach (DE)

**Respondent:**
Proprietor of the patent
Komori Corporation
11-1, Azumabashi 3-chome
Sumida-ku
Tokyo (JP)

**Representative:**
Pfenning, Meinig & Partner
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**Decision under appeal:** Interlocutory decision of the Opposition Division of the European Patent Office posted 16 May 2001 concerning maintenance of European patent No. 0581212 in amended form.

**Composition of the Board:**
Chairman: W. Moser
Members: W. Widmeier
P. E. Michel
Summary of Facts and Submissions

I. Appellants I and II (opponents 02 and 03) lodged an appeal against the interlocutory decision of the Opposition Division maintaining the European patent No. 0 581 212 in amended form.

The Opposition Division held that the grounds of opposition under Article 100(a) EPC (lack of novelty and lack of inventive step, Articles 54 and 56 EPC) did not prejudice the maintenance of the patent in amended form.

II. Oral proceedings before the Board of Appeal were held on 25 November 2003.

III. Appellants I and II and the other party (party to the appeal proceedings as of right pursuant to Article 107 EPC, opponent 01) requested that the decision under appeal be set aside and that the patent be revoked.

The respondent (patent proprietor) requested that the appeals be dismissed.

IV. Independent claim 1 of the patent in suit reads as follows:

"1. An apparatus for mounting a plate (13) on a plate cylinder (1) comprising a plate lockup device (4) and a reference pin (16, 30, 40), provided in a gap (2) formed in a circumferential surface of said plate cylinder (1), a reference pin hole (26) in the plate (13), a plate detecting means (16a, 30b, 50) and an indicator means for confirming and indicating insertion
of the plate (13) on the basis of a detecting signal from said plate detecting means (16a, 30b, 50), said reference pin (16, 30, 40) being engaged with said reference pin hole (26) when said plate (13) is inserted into a gripper portion (5b, 8a) of said plate lockup device (4), said reference pin hole (26) is formed as a notch at the insertion end (13a) of said plate (13) consisting of a conductive material, and said plate detecting means (16a, 30b, 50) are arranged in the reference pin (16, 30, 40) to oppose only a bottom portion (26a) of said reference pin hole (26) so that said plate detecting means (16a, 30b, 50) detect that said electrically conductive bottom portion (26a) of said reference pin hole (26) contacts said reference pin (16, 30, 40) to output a detecting signal of plate insertion characterised in that, otherwise, said plate detecting means (16a, 30b, 50) do not output the detecting signal to said indicator means when the electrically conductive side portion of said reference pin hole (26) contacts said reference pin (16, 30, 40)."

Independent claim 4 of the patent in suit reads as follows:

"4. An apparatus for mounting a plate (13) on a plate cylinder (1) comprising a plate lockup device (4) and a reference pin (16, 30, 40), provided in a gap (2) formed in a circumferential surface of said plate cylinder (1), a reference pinhole (26) in the plate (13), a plate detecting means (16a, 30b, 50) and an indicator means for confirming and indicating insertion of the plate (13) on the basis of a detecting signal from said plate detecting means (16a, 30b, 50), wherein
said reference pinhole (26) is formed as a notch at the insertion end (13a) of said plate (13), said reference pin (16, 30, 40) is engaged with said reference pin hole (26) when said plate (13) is inserted into the gripper portion (5b, 8a) of said plate lockup device (4), and said plate detecting means (16a, 30b, 50) are arranged in the reference pin (16, 30, 40) to oppose only a bottom portion (26a) of said reference pin hole (26) so that said plate detecting means (16a, 30b, 50) detect that said bottom portion (26a) of said reference pin hole (26) contacts said reference pin (16, 30, 40) to output a detecting signal of plate insertion and, otherwise, said plate detecting means (16a, 30b, 50) do not output the detecting signal to said indicator means when portions of said reference pin (16, 30, 40) which do not oppose said bottom portion (26a) of said reference pin hole (26) contact the plate (13) or when the side portion of said reference pin hole (26) contacts said reference pin (16, 30, 40) characterised in that said reference pin has a nonmagnetic metal detecting sensor (50) constituting said plate detecting means at the position corresponding to said bottom portion of said reference pin hole, said nonmagnetic metal detecting sensor detecting a proximal state of said bottom portion of said reference pin hole formed in a nonmagnetic metal plate to detect insertion of the plate."

V. The following documents were in particular referred to in the appeal procedure:

D1: DE-U-77 28 905

D2: DD-A-69 382
VI. Appellants I and II and the other party argued essentially as follows:

(a) **New ground of opposition** (only appellant II and the other party)

Claim 4 of the patent in suit is a new independent claim introduced during the opposition procedure. Thus, the new ground of opposition under Article 100(b) EPC is not a ground of opposition which, in accordance with decision G 9/91 of the Enlarged Board of Appeal, may be introduced only with the consent of the patent proprietor.

(b) **Public prior use**

Documents D8a to D8h give sufficient evidence that the subject-matter disclosed by these documents was used in public before the priority date of the patent in suit.

(c) **Article 123(3) EPC** (only appellant II and the other party)

In the patent as granted, claim 4 was a claim dependent on claim 1. The amendments made to claim 1 during the opposition procedure caused a reformulation of claim 4. This reformulation extended the scope of protection of
claim 4. Since claim 4 is now an independent claim, the patent in suit covers two inventions and thus a broader scope than the patent in suit as granted.

(d) **Novelty**

Claim 1 of the patent in suit comprises the functional feature that the plate detecting means do not output the detecting signal when the side portion of the reference pin hole contacts the reference pin. This functional feature is also comprised in document D1. The teaching imparted to a person skilled in the art by this document is to isolate the side edges of the reference pin hole of the plate against the reference pin of the plate cylinder. It is therefore clear for the person skilled in the art, and therefore implicitly disclosed in document D1, that either the side edges of the plate or the portions of the reference pin facing these side edges must be isolated or that an isolation means must be placed between reference pin and reference pin hole. Since document D1 also discloses all the other features of claim 1 of the patent in suit, the subject-matter of this claim lacks novelty. Claim 4 of the patent in suit differs from claim 1 in that it specifies a nonmagnetic metal detecting sensor for detecting a proximal state of the bottom portion of the reference pin hole and the reference pin. Such a detector is also comprised in document D1. When the reference pin contacts the bottom portion of the reference pin hole, the proximal state of these two elements is reached and a detecting signal is issued. This corresponds to the detecting sensor and its function of claim 4 of the patent in suit. Thus, the subject-matter of this claim also lacks novelty.
(e) **Inventive step**

The closest prior art is represented by document D1. This document teaches a person skilled in the art to isolate the side edges of the reference pin hole from the reference pin. Whether this isolation is realized by isolating the side edges of the pin hole or by isolating the side portions of the reference pin is a matter of choice among equivalents. When the side edges of the reference pin hole are isolated, this isolation must be provided for each printing plate, whereas, when the reference pin is isolated, this isolation must be provided only once. Thus, it is more advantageous, and consequently obvious, to isolate the reference pin. This approach applies both for claim 1 and claim 4 of the patent in suit, and this approach is supported, as concerns claim 1, by document D5 where the side portions of the reference pin are flattened so that they cannot contact the side edges of the reference pin hole, and, as concerns claim 4, by document D2 where the electrical resistance between pin and pin hole is measured so that a proximal state of these two parts can be detected. Thus, the subject-matter of claims 1 and 4 does not involve an inventive step.

VII. The respondent argued essentially as follows:

(a) **New ground of opposition**

Claim 4 of the patent in suit is identical to claim 4 of the patent as granted. Thus, the new ground of opposition under Article 100(b) EPC cannot be
introduced without the consent of the patent proprietor, i.e. the respondent. This consent is not given.

(b) **Public prior use**

Documents D8a to D8h leave many doubts as to what was used and the date of use so that these documents cannot be considered to represent prior art.

(c) **Article 123(3) EPC**

Since the content of claim 4 of the patent in suit is identical to the content of claim 4 of the patent in suit as granted, it cannot infringe Article 123(3) EPC.

(d) **Novelty**

Figure 1 of document D1 shows by the dotted lines 15 and 16 the isolation of the side edges of the reference pin hole. In contrast, claim 1 of the patent in suit defines that the side portions of the reference pin hole are electrically conductive. For this reason the subject-matter of claim 1 is novel. Neither document D1 nor the other prior art documents show a nonmagnetic metal detecting sensor as specified in claim 4 of the patent in suit. Thus, the subject-matter of this claim is also novel.

(e) **Inventive step**

Document D1 represents the closest prior art. It relates to the same problem as the patent in suit, i.e. to ensure that a detection signal of a plate detecting means is issued only when the bottom portion of the
reference pin hole contacts the reference pin. The subject-matter of claim 1 of the patent in suit differs from document D1 in that the side portions of the reference pin hole are electrically conductive. It follows from that feature that the portions of the reference pin which come into contact with the side portions of the pin hole are isolated. Document D1 does not suggest to modify the plate detecting means such that, instead of the side portions of the reference pin hole, the reference pin is isolated. Document D5 does not suggest that either. The flattened side portions of the reference pin of this document are another solution which, however, cannot render an isolated reference pin obvious. Document D2 relates to a different problem and will not be considered by a person skilled in the art. The subject-matter of claim 4 solves the posed problem by a nonmagnetic metal detector. Such a detector is neither shown in, nor rendered obvious by, any of the prior art documents. Consequently, both the subject-matter of claim 1 and of claim 4 involve an inventive step.

Reasons for the Decision

1. New ground of opposition

The new ground of opposition under Article 100(b) EPC was raised by appellant II and the other party with respect to claim 4 of the patent in suit. Claim 4 as granted was a dependent claim comprising by reference all features of claim 1 as granted and comprising additionally a definition of a nonmagnetic metal detecting sensor and its function. Claim 4 of the
The patent in suit is formulated as an independent claim and comprises in full wording all features of claim 1 as granted and the same additional features of claim 4 as granted. Consequently, the content of claim 4 of the patent in suit is identical to the content of claim 4 as granted.

In accordance with opinion G 9/91 of the Enlarged Board of Appeal (OJ EPO 1993, 408, cf. points 18 and 19 of the Reasons) the introduction of this new ground of opposition requires the consent of the respondent. The latter did not give his consent and, consequently, this ground of opposition cannot be dealt with in this decision.

2. **Public prior use**

Documents D8a to D8h submitted by appellant II to adduce evidence of an alleged public prior use consist of an offer by "Lehner GmbH" to "Schmalbach Lubeca AG" about a "Druckplatten-Anlege-Kontrolle" (D8a) made on 8 April 1992; four "Artikelstammlätter" of a "Signal-Verstärker 01", dated 8 June 1992, a "Druck-Platten-Indikator 02", dated 8 June 1992, a "Druck-Platten-Indikator 01", dated 8 June 1992, and a "Platten-Anlege-Kontrolle 01", dated 8 April 1992 (D8b); a drawing of a "Paßstift", dated 11 March 1992 (D8c); a "Projektliste", dated 16 February 1995 (D8d); a technical description of a "Druck-Platten-Anlege-Kontrolle" (D8e), dated 28 April 1992, which is identical to the technical description comprised in document D8a; a drawing of a "Paßsystem", without a date in the drawing's date field but a date stamp on the drawing of 4 June 1992 (D8f); a drawing of a
"Paßstift", dated 10 April 1992 and a date stamp on the drawing of 4 June 1992 (D8g); and a delivery note of "Cerasiv GmbH" to "Lehner GmbH" about "Einsaetze (Pass-Stifte) aus Oxidkeramik B40 nach Zeichnung vom 8.12.92" indicating an order date of 15 December 1992 and a delivery date of 29 January 1993 (D8h).

Appellant II could not prove that the offer according to document D8a was followed by an order and a delivery. No order, delivery note, or invoice was presented. Appellant II could not prove how documents D8b, D8c, D8d, D8f and D8g are correlated to each other and to the offer according to document D8a. Moreover, document D8h gives rise to doubts about the date at which Lehner GmbH was able to deliver the offered "Druck-Platten-Anlege-Kontrolle". Lehner GmbH obtained the reference pins of this device from an external manufacturer. The delivery note of this manufacturer (document D8h) is of 29 January 1993 and indicates that the reference pins were produced according to a drawing of 8 December 1992. However, the priority date of the patent in suit is 31 July 1992. Thus, appellant II could neither prove what was used nor the date of use. Thus, he failed to prove the alleged public prior use up to the hilt (cf. also decision T 472/92, OJ EPO 1998, 161, points 3.1 and 3.2 of the Reasons).

For this reason documents D8a to D8h cannot be considered to represent prior art according to Article 54(2) EPC and have to be disregarded.
3. **Article 123(3) EPC**

Objections under Article 123(3) EPC were raised against claim 4 of the patent in suit. As stated above under point 1, the content of claim 4 of the patent in suit is identical to the content of claim 4 of the patent as granted. Consequently, claim 4 of the patent in suit does not extend the protection conferred.

The Board is therefore satisfied that claim 4 of the patent in suit meets the requirements of Article 123(3) EPC.

4. **Novelty**

4.1 Claim 1 of the patent in suit specifies that the plate detecting means do not output the detecting signal when the electrically conductive side portion of the reference pin hole contacts the reference pin.

Document D1 discloses an apparatus having the features specified in the preamble of claim 1 of the patent in suit. Document D1 describes two alternatives. Either the side portion of the reference pin hole is electrically conductive, in which case the plate detecting means outputs a signal when this side portion and the reference pin come into contact, or the side portion of the reference pin hole is isolated, i.e. electrically non-conductive (cf. page 3, lines 8 to 27). Both alternatives differ from the arrangement defined in the characterising portion of claim 1 of the patent in suit.
In the plate detecting means disclosed in document D2 the reference pin hole is a closed elongated hole rather than a notch (cf. column 5, lines 40 to 62). Furthermore, the detecting means outputs a signal when a side portion of the reference pin hole contacts the reference pin (cf. column 6, lines 19 to 36). Thus, the disclosure of this document also differs from the subject-matter of claim 1 of the patent in suit.

Document D5 discloses an apparatus in which one of two register pins has flattened side portions. However, the register pins 6 and 7 and the corresponding register notches are not part of detecting means. The detecting means is formed by pins 18 which contact the front edges 3 of the plate (cf. page 5, lines 9 to 29; page 6, lines 6 to 32; and Figures 2 and 4). Thus, the disclosure of this document also differs from the subject-matter of claim 1 of the patent in suit.

The Board therefore concludes that claim 1 of the patent in suit is novel.

4.2 Claim 4 of the patent in suit specifies that the reference pin has a nonmagnetic metal detecting sensor which detects a proximal state of the bottom portion of the reference pin hole of the nonmagnetic metal plate. Appellant II was of the opinion that the detector shown in document D1 is such a detector because it detects the most proximal state of the bottom portion of the reference pin hole, i.e. direct contact between reference pin and bottom portion of the reference pin hole. This interpretation of document D1 cannot be accepted. The expression "nonmagnetic metal detecting sensor" implies that this sensor is able to distinguish
between nonmagnetic and magnetic metals. The simple electrical contact of the detector of document D1, however, cannot make such a distinction. It provides the same output signal if the pin contacts a magnetic metal plate and a nonmagnetic metal plate. Thus, even if one followed the arguments of appellant II so far that a simple electrical contact is to be considered a sensor for detecting the proximal state of the bottom portion of the reference pin hole, this electrical contact would not be a nonmagnetic metal detector.

Consequently, the subject-matter of claim 4 of the patent in suit is also novel with respect to the disclosure of document D1. The same applies to documents D2 and D5 because these documents do not show a nonmagnetic metal detector either.

5. **Inventive step**

5.1 The essential feature of the subject-matter of claim 1 of the patent in suit is the feature that the plate detecting means do not output the detecting signal to the indicator means when the electrically conductive side portion of the reference pin hole contacts the reference pin. This feature implies that the portion of the reference pin facing the side portion of the reference pin hole is isolated and that the portion of the reference pin facing the bottom portion of the reference pin hole is not isolated. Otherwise, it would not be possible that no detecting signal is output when the reference pin contacts the electrically conductive side portion and that a detecting signal is output when the reference pin contacts the bottom portion of the reference pin hole. The problem to be solved by this
feature is to ensure that a detecting signal is output only when the printing plate is properly mounted on the cylinder (cf. column 2, lines 28 to 45 of the patent in suit).

The Board concurs with the parties that document D1 represents the closest prior art. This document refers to the same problem and solves it by isolating the side edges of the reference pin hole so that they are no longer electrically conductive (cf. page 3, lines 8 to 27).

Appellants I and II and the other party were of the opinion that isolating the side portions of the reference pin and isolating the side portions of the reference pin hole are equivalents and that the teaching imparted by document D1 is to isolate the side portions of the reference pin and of the reference pin hole against each other, leaving it open which of these two elements carries the isolation, so that, if not novelty destroying, document D1 at least renders the essential feature of claim 1 of the patent in suit obvious.

The Board cannot follow this opinion. Document D1 clearly indicates that, in order to avoid unwanted contact of reference pin and side portions of the reference pin hole, the side portions of the reference pin hole are to be isolated (cf. page 3, lines 22 to 25). Furthermore, the reference pin and the reference pin hole edges are not merely two electrical contacts so that isolation of the one or the other are equivalents. One of the two contact elements is a printing plate exchangeably mounted to a printing
cylinder, and the other contact is a reference pin permanently mounted to the printing cylinder. In case the side portions of the reference pin hole are isolated, it is necessary to do this for each printing plate, whereas, in case the reference pin is isolated, this has to be done once only. Thus, it may at first glance appear to be obvious to isolate the pin. However, isolation of the printing plate is an easy measure and this isolation need not have a high wear resistance. Contrary to that, if the permanently mounted pin is isolated, the isolation must have a high wear resistance and an isolation of only the portions of the pin which face the side portions of the pin hole is a much more complicated process than to isolate the side edges of the reference pin hole. Thus, document D1 cannot suggest to replace the isolation of the side portions of the reference pin hole by an isolation of the side portions of the reference pin.

Document D2 does not suggest to isolate the reference pin against the side portions of the reference pin hole because the adjustment of the printing plate described in this document is based on a measurement of the electrical resistance between reference pin and a reference pin hole edge. Thus, it is necessary that both the pin and the pin hole are electrically conductive (cf. column 4, lines 11 to 47).

Document D5 describes a printing plate adjustment by means of two sensors 18, which contact front edges 3 of the printing plate (cf. page 2, lines 19 to 21; page 6, lines 6 to 27). The register pins 6 and 7 (cf. Figure 2 and 4) do not have any electrical function. Their purpose is to enable a basic mechanical adjustment of
the printing plate (cf. page 5, lines 20 to 29; page 6, line 34 to page 7, line 12). Thus, this document also does not suggest to isolate the reference pin against the edges of the reference pin hole. Appellant II and the other party argued that a person skilled in the art would not read document D5 but just look at the drawings and interpret pin 7 shown in Figure 2 as a pin which due to its flattened side portions is isolated from the side edges of the reference pin hole and that the skilled person would use such a pin in the device of document D1 instead of the isolated pin hole edges. This argument is not acceptable. A person skilled in the art will not only look at the drawings of a document but also read the document and then see that this pin 7 does not have any electrical function. Document D5 is silent about the purpose of the flattened side portions of the pin. Speculating that this purpose is an electrical isolation of the pin against the side edge of the pin hole is possible only with the knowledge of the patent in suit and thus based on hindsight.

The Board concludes therefore that the subject-matter of claim 1 of the patent in suit involves an inventive step.

5.2 The subject-matter of claim 4 of the patent in suit solves the same problem as the subject-matter of claim 1, however, by a reference pin which has a nonmagnetic metal detecting sensor constituting the plate detecting means at the position corresponding to the bottom portion of the reference pin hole, this nonmagnetic metal detecting sensor detecting a proximal
state of the bottom portion of the reference pin hole of a nonmagnetic metal plate.

None of the documents D1, D2 and D5 mentions or suggests a nonmagnetic metal detecting sensor in the reference pin of a plate adjusting device. As already stated above under point 4.2, a simple electrical contact cannot be interpreted as a nonmagnetic metal detector.

In the absence of any hint in the prior art to such a detector, the Board concludes that also the subject-matter of claim 4 of the patent in suit involves an inventive step.

5.3 Claims 2, 3, 5 and 6 of the patent in suit depend on claim 1 of the patent in suit. Thus, the subject-matter of these claims also involves an inventive step.

Order

For these reasons it is decided that:

The appeals are dismissed.

The Registrar: The Chairman:

R. Schumacher W. Moser