

Internal distribution code:

- (A) Publication in OJ
- (B) To Chairmen and Members
- (C) To Chairmen
- (D) No distribution

D E C I S I O N
of 8 May 2001

Case Number: T 0946/97 - 3.2.5

Application Number: 88114700.3

Publication Number: 0357825

IPC: B41F 9/10

Language of the proceedings: EN

Title of invention:
Wiping apparatus for intaglio printing press

Patentee:
Komori Corporation

Opponent:
De La Rue Giori S.A.

Headword:
-

Relevant legal provisions:
EPC Art. 56
EPC R. 67

Keyword:
"Inventive step (yes)"
"Reimbursement of appeal fees (no)"

Decisions cited:
-

Catchword:
-



Case Number: T 0946/97 - 3.2.5

D E C I S I O N
of the Technical Board of Appeal 3.2.5
of 8 May 2001

Appellant:
(Opponent)

De La Rue Giori S.A.
4 rue de la Paix
1003 Lausanne (CH)

Representative:

Jörchel, Dietrich R.A.
c/o Bugnion S.A.
Conseils en Propriété Industrielle
10, route de Florissant
Case postale 375
1211 Genève 12 (CH)

Respondent:
(Proprietor of the patent)

Komori Corporation
11-1, Azumabashi 3-chome
Sumida-ku
Tokyo (JP)

Representative:

van Samson-Himmelstjerna, Friedrich R.
Dipl.-Phys.
SAMSON & PARTNER
Widenmayerstrasse 5
D-80538 München (DE)

Decision under appeal:

Interlocutory decision of the Opposition Division
of the European Patent Office posted 3 July 1997
concerning maintenance of European patent
No. 0 357 825 in amended form.

Composition of the Board:

Chairman: W. Moser
Members: P. E. Michel
A. Burkhart

Summary of Facts and Submissions

- I. The appellant (opponent) lodged an appeal against the decision of the opposition division maintaining European patent No. 0 357 825 in amended form.

Opposition was filed against claim 1 of the patent based on Article 100(a) EPC (lack of inventive step).

The Opposition Division held that claim 1 as amended during oral proceedings held on 18 June 1997 involved an inventive step.

- II. Oral proceedings were held before the Board of Appeal on 8 May 2001.

(i) The appellant requested that the decision under appeal be set aside and that the European patent No. 0 357 825 be revoked, because of lack of inventive step of the independent claim 1 as maintained by the Opposition Division, and that the auxiliary request of the respondent be rejected under Rule 57a EPC, on the ground that the amendment was not occasioned by grounds for opposition specified in Article 100 EPC. The appellant further requested reimbursement of the appeal fee.

(ii) The respondent (patentee) requested as a main request that the appeal be dismissed, and as an auxiliary request, that the decision under appeal be set aside and the patent be maintained in amended form on the basis of claim 1 filed on 6 April 2001.

III. The following documents have been referred to in the appeal procedure:

D1: US-A-3 762 319;

D2: GB-A-1 126 097; and

D6: US-A-4 290 361.

IV. Claim 1 of the patent in suit as maintained by the Opposition Division, that is, claim 1 of the main request of the respondent, reads as follows:

"A wiping apparatus (20) for an intaglio printing press including:

eccentric bearings (25) mounted on side plates of said intaglio printing press and arranged such that the axis (F) of outer bearing surface portions (25a) pivotally fitted in support holes on a press side and the axis (F1) of inner holes (25b) are eccentric;

a wiping roller (26) which is rotatably supported in said inner holes (25b) of said eccentric bearings (25) and is driven by a gear (29) and a pinion (30) meshed therewith;

fluid pressure cylinders (37) having piston rods (38), actuating ends of which are pivotally supported by said outer bearing surface portions (25a) of said eccentric bearings (25), respectively,

said fluid pressure cylinders (37) being arranged to bring a surface of said wiping roller (26) into contact with a copperplate surface of a copperplate cylinder (10) or to separate the surface of said wiping roller (26) from the copperplate surface upon reciprocal operation of said piston rods (38);

characterised by

a fine-adjusting mechanism (34) for adjusting a stroke limit of said fluid pressure cylinders (37) in a reciprocal direction to said piston rods (38);

the position of said axis (F) of outer bearing surface portions (25a) falling within the intersection of angular ranges around the wiping roller axis (F1) within $\pm 45^\circ$ with respect

- a) to a line perpendicular to a line connecting the wiping roller axis (F1) and the copperplate cylinder axis (F2);
- b) to a line extending a line connecting the axis (F3) of said pinion (30) and said wiping roller axis (F1); and

that said gear (29) is fixed to said wiping roller (26)."

V. As regards the main request of the respondent, the appellant argued essentially as follows:

The closest prior art is represented by document D1. This document discloses a wiping apparatus having all the features of the preamble of claim 1 and in which, in addition, the position of the axis of the outer bearing surface portions falls within the intersection of angular ranges around the wiping roller axis within $\pm 45^\circ$ with respect

- (a) to a line perpendicular to a line connecting the wiping roller axis and the copperplate cylinder axis; and
- (b) to a line extending a line connecting the axis of the pinion and the wiping roller axis.

The term "around the wiping roller axis" does not mean that the apex of the defined angle must lie on the wiping roller axis. The angle as shown in annexe 1A of the letter of the appellant dated 10 August 2000 also lies around the wiping roller axis.

The subject-matter of claim 1 is thus distinguished over the disclosure of document D1 solely insofar as

- (i) a fine-adjusting mechanism is provided for adjusting a stroke limit of the fluid pressure cylinders in a reciprocal direction to the piston rods; and
- (ii) the driving gear for the wiping roller is fixed to the wiping roller.

The provision of a fine adjusting mechanism is, however, known from document D2 and a driving gear for the wiping roller fixed to the wiping roller is known from document D6.

These distinguishing features are merely a juxtaposition of features having differing functions and solving different problems. Thus, for example, fixing the gear to the wiping roller solves the problem of providing a rigid connection.

Therefore, the subject-matter of claim 1 does not involve an inventive step.

VI. As regards its main request, the respondent argued essentially as follows:

It is agreed that document D1 is the closest prior art. It is not, however, accepted that document D1, in particular, Figure 8 thereof, shows outer bearing surface portions whose axis falls within the intersection of angular ranges around the wiping roller axis within $\pm 45^\circ$ with respect to a line extending a line connecting the axis of the pinion and the wiping roller axis (that is, feature b) of the claim). The copy of Figure 8 filed by the appellant as annexe 1A of a letter dated 10 August 2000 is incorrect in that the

apex of the angle does not lie on the wiping roller axis as required by claim 1. The interpretation of claim 1 to mean that the apex of the angle lies on the wiping roller axis follows from a reading of the language of the claim and is confirmed by the drawings of the patent in suit.

The object of the invention is to improve the mounting mechanism for the wiping roller so as to facilitate movement of the wiping roller towards and away from the copperplate cylinder.

This object is achieved by virtue of condition b) of claim 1, which reduces the relative movement of the gear with respect to the pinion. This is not suggested in the prior art.

It is not accepted that the characterising features of claim 1 solve different problems. All the specified features contribute to the stated problem.

Therefore, the subject-matter of claim 1 involves an inventive step.

Reasons for the Decision

Main request of the respondent

1. *Inventive step*

1.1 Closest prior art

As accepted by both parties, the closest prior art is represented by document D1, which discloses a wiping apparatus having the features of the preamble of claim 1 and in which, in addition, the position of the

axis of the outer bearing (28) surface portions falls within the intersection of angular ranges around the wiping roller axis within $\pm 45^\circ$ with respect to a line perpendicular to a line connecting the wiping roller (25) axis and the copperplate cylinder (3) axis (that is, feature a) of the claim). Such an arrangement is illustrated in Figure 8 of the drawings of document D1.

It was alleged on behalf of the appellant that feature b) of claim 1 is also disclosed in document D1. Reliance is placed on the drawing constituting annexe 1A of the letter of the appellant dated 10 August 2000, in which the angular range is shown with its apex on the line extending a line connecting the axis of the pinion and the wiping roller axis and extending downwardly so as to embrace the axis (F1) of the wiping roller, as well as the axis of the pinion (F3). It cannot, however, be accepted that the language of claim 1 should be construed in this way. As a matter of plain language, the reference in the claim to "angular ranges around the wiping roller axis (F1)" means that the specified angular ranges are measured around the wiping roller axis (F1), so that the angular range has an apex falling on the wiping roller axis (F1). This interpretation is confirmed by the description and drawings of the patent in suit, in particular Figure 4, which shows both the angular ranges specified in claim 1 having their apices on the axis (F1) of the wiping roller.

Claim 1 further specifies that the angular range around the wiping roller axis is within $\pm 45^\circ$ with respect to a line extending a line connecting the axis of the pinion and the wiping roller axis. This means that, when applied to Figure 8 of document D1, the specified angular range extends upwardly from its apex on the wiping roller axis symmetrically about the

line extending a line connecting the axis of the pinion and the wiping roller axis, rather than downwardly from an apex lying on the line extending a line connecting the axis of the pinion and the wiping roller axis as suggested by the appellant. The axis of the pinion is thus outside the specified angular range.

In document D1, movement of the wiping roller (25) towards and away from the copperplate cylinder (3) occurs in a linear manner as illustrated in Figure 5, the wiping roller and the associated solvent tank (35) being mounted on rails (62). In order to allow the movement of the wiping roller away from the copperplate cylinder, the connection between the wiping roller and the gear is effected by means of a crank pin (32) which engages one of three slots (30a) in a wheel (30). Engagement and disengagement of the gear and the wiping roller is thus only possible in three distinct angular positions of the roller. Whilst an eccentric mounting of the wiping cylinder is disclosed by D1, as shown in Figures 6 and 8, this is provided only in order to enable a fine adjustment of the pressure exerted by the wiping roller on the copperplate cylinder.

1.2 Object of the invention

The object of the invention is to improve the mounting mechanism for the wiping roller so as to facilitate movement of the wiping roller towards and away from the copperplate cylinder.

1.3 Solution

This object is achieved by virtue of feature b) of claim 1, which determines the position of the outer bearing surface axis with respect to the pinion. Since, as a result of positioning the axes according to feature (b) of claim 1, the relative movement of the

gear and pinion is restricted during movement of the wiping roller towards and away from the copperplate cylinder, it becomes possible for the gear to be fixed to the wiping roller, and movement of the wiping roller towards and away from the copperplate cylinder can take place in any angular position of the wiping roller.

- 1.4 Of the remaining prior art, only document D6 suggests the provision of an eccentric for adjusting the relative position of adjacent cylinders. Document D6, however, does not disclose an arrangement which satisfies condition b) of claim 1. The axis of the outer bearing surface portions of the eccentric plate (82), as shown in Figures 1 and 2 of document D6, does not fall within the intersection of angular ranges around the impression cylinder roller axis (the axis of shaft (20)) within $\pm 45^\circ$ with respect to a line extending a line connecting the axis of the pinion (the axis of shaft (34)) and the impression cylinder roller axis. Document D6 thus does not suggest modifying the wiping apparatus of document D1 by arranging the eccentric mounting of the wiping roller in the manner as specified in claim 1. On the contrary, in the arrangement disclosed in document D6, as the impression cylinder is moved away from the plate cylinder, the distance between the gear and the pinion diminishes. Relative movement of the cylinders is thus limited by the danger of the gear jamming with the pinion.

When the axes are arranged in accordance with the present invention, the wiping roller moves through a convex arc with respect to the pinion axis, so that relative movement between the gear and the pinion during movement of the wiping roller towards and away from the plate cylinder is reduced as compared with the arrangement disclosed in document D6. Thus, even though the distance between the axes of the gear and the pinion may initially reduce during separation of the

wiping roller from the plate cylinder, the distance will then increase and continue to increase, thus avoiding the danger of jamming. This initial reduction is, however, limited, and does not nullify the advantages obtained by arranging the axes (F, F1, F2, F3) as specified in claim 1.

1.5 The subject-matter of claim 1 thus involves an inventive step and the patent in suit may be maintained in the amended form as maintained by the Opposition Division in accordance with the main request of the respondent. Consequently, it is not necessary to deal with the auxiliary request of the respondent.

2. *Reimbursement of the appeal fee*

According to Rule 67 EPC, a prerequisite for reimbursement of the appeal fee is that the appeal is allowable. Since, in the present case, the appeal is not allowable, reimbursement of the appeal fee is excluded.

Order

For these reasons it is decided that:

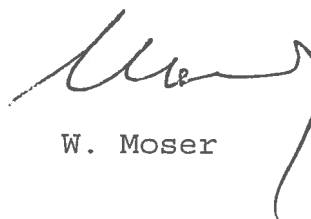
The appeal is dismissed.

The Registrar:




M. Dainese

The Chairman:



W. Moser

1340.D



Bu
18.6.01