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**Datasheet for the decision
of 30 June 2006**

Case Number: T 0561/01 - 3.5.01
Application Number: 92915010.0
Publication Number: 0620941
IPC: G06F 19/00, B26D 5/34
Language of the proceedings: EN

Title of invention:

Die stamping press having CCD camera system for automatic 3-axis die registration

Patentee:

Preco Industries, Inc.

Opponent:

Werner Kammann Maschinenfabrik GmbH & Co. KG

Headword:

Die stamping press/PRECO INDUSTRIES

Relevant legal provisions:

EPC Art. 56

Keyword:

"Transfer of opposition - yes"
"Inventive step - no"

Decisions cited:

G 0002/04, G 0004/88, T 0670/95

Catchword:

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Case Number: T 0561/01 - 3.5.01

D E C I S I O N
of the Technical Board of Appeal 3.5.01
of 30 June 2006

Appellant: Werner Kammann Maschinenfabrik GmbH & Co. KG
(Opponent) Elsemühlenweg 83-89
D-32257 Bünde (DE)

Representative: Koepsell, Helmut
Frankenforster Straße 135-137
D-51427 Bergisch Gladbach (DE)

Respondent: Preco Industries, Inc.
(Patent Proprietor) 9501 Dice Lane
Lenexa, KS 66215 (US)

Representative: UEXKÜLL & STOLBERG
Patentanwälte
Beselerstraße 4
D-22607 Hamburg (DE)

Decision under appeal: Interlocutory decision of the Opposition
Division of the European Patent Office posted
28 March 2001 concerning maintenance of
European patent No. 0620941 in amended form.

Composition of the Board:

Chairman: S. Steinbrener
Members: W. Chandler
P. Schmitz

Summary of Facts and Submissions

- I. This appeal is against the interlocutory decision of the opposition division concerning maintenance of European patent No. 0 620 941 in amended form.
- II. The opposition division held that the patent as amended, based on the single request filed at the oral proceedings, met the requirements of the EPC having regard *inter alia* to following documents:
- D1: US-A-4 555 968
D3: EP-A-0 126 723
- III. The opposition division essentially took the view, contrary to that expressed in the (first) declaration from Mr James T. Gramling, Senior Vice President of Preco, that it was obvious to replace the sensors in the registration system of the die cutting press of D1 by cameras, as disclosed in D3. However, it was not obvious to mount the cameras on the moving bolster. An alleged prior use was not considered as sufficiently substantiated because the documents submitted as evidence either carried no date or did not disclose details of the registration system and thus the hearing of the nominated witnesses did not appear to be necessary.
- IV. The opponent (appellant) lodged an appeal and further substantiated the prior use with the grounds of appeal. It was specifically alleged that in 1989 a die cutting press manufactured by the patent proprietor with the machine No. 5183, which was equipped with a camera mounted on the bolster, was exhibited at the

Productronica trade fair in Munich on the stand of CE-Centrum Elektron GmbH, Eppertshausen. This die cutting press was delivered to the company VDO at Babenhausen and subsequently transferred to Vielbrunn without any secrecy agreement. The following additional evidence was filed:

D13: "Productronica", Exhibition Catalogue, page 164.

D14: Machine/Customer list ("Maschinen/Kundenliste"), dated 20 June 1991.

D15: Preco communication, dated 20 February 1990.

D16: Photograph of the VDO press attached to communication D15.

D17: Preco technical drawing 200149, entitled "2024 PC with CCD Registration VDO", dated 26 May 1988.

Furthermore, the appellant offered several witnesses in connection with the prior use, including Mr Thomas Kohl.

V. In a reply to the Board's communication accompanying the summons to the (first) oral proceedings, the appellant filed *inter alia* an affidavit from Mr Kohl (D23) explaining the details of the alleged prior use. In their reply, the proprietor (respondent) filed a second declaration from Mr Gramling to support the respondent's claim that in the machine delivered to VDO the camera was not mounted on the bolster.

VI. In a further letter, received just before the oral proceedings, the appellant "Werner Kammann Maschinenfabrik GmbH" requested that the opposition be continued in the name of "Werner Kammann Maschinenfabrik GmbH & Co. KG." He explained that the original opponent was merged with the firm KBG

- "Kehrwieder" Beteiligungs GmbH. Thereupon, parts of the business assets were transferred to the firm KBG "Kehrwieder" GmbH & Co. KG which subsequently changed its name to Werner Kammann Maschinenfabrik GmbH & Co. KG. As evidence, extracts from the trade register ("Handelsregister") HRB 8090 and HRA 5096 were filed.
- VII. In a communication, the Board requested proof that the transfer of the relevant assets had taken place, such as a copy of the "Ausgliederungs- und Übernahmevertrag" of 27 August 2004 mentioned in the trade register HRA 5096.
- VIII. By the time of the oral proceedings on 13 January 2005, the appellant had not obtained the requested proof and the Board gave the appellant a time limit of two months to file it. At the oral proceedings, the respondent filed an auxiliary request with a minor amendment to the form of claim 1.
- IX. The appellant subsequently filed the requested evidence of the transfer of the relevant business assets *inter alia* in the form of an extract from the "Notariatsurkunde" UR - NR. 1209/2004 J (Rahmenurkunde). This document contained in Part K the separation contract between KBG "Kehrwieder" Beteiligungs GmbH and KBG "Kehrwieder" GmbH & Co. KG. The respondent contested the transfer and filed an opinion from a German notary, Mr Dietmar Doss.
- X. In a communication accompanying the summons to the second oral proceedings, the Board gave its provisional view that the transfer of the opposition was allowable. The Board also summarised that in the light of the

declarations from Mr Kohl and Mr Gramling it appeared to be no longer in dispute that a press with a CCD camera and at least X and Y registration was prior art. Finally, the Board invited the appellant to bring at least Mr Kohl as a witness to clarify the remaining issue of where the camera was mounted on the press.

XI. At the second oral proceedings on 30 June 2006, Mr Kohl gave his testimony and the appellant requested that the decision under appeal be set aside and the patent be revoked. The appellant also requested that the transfer of opposition be allowed.

The respondent requested that the decision under appeal be set aside and the patent be maintained in amended form based on the request filed as an auxiliary request at the first oral proceedings on 13 January 2005.

XII. Claim 1 reads as follows:

"A registration system for a die cutting press (16) for elongated material (56) having defined, successive areas (92) and area indicia (94) provided in predetermined positions relative to each of the defined areas (92), the press including a base platen (24) a ram platen (30) shiftable toward and away from the base platen, a die unit (34) received in the space between the base platen (24) and the ram platen (30), and longitudinal shifting means (52, 54, 64, 66, 60, 68) for longitudinally advancing the material (56) along a path of travel to successively feed the defined areas (92) of the material toward the die unit (34), said registration system including lateral shifting structure (72, 80) for moving the die unit relative to the base platen along a direction of travel transverse

to the path of travel of the material, and angular shifting structure (86, 88, 90, 84) for rotating the die unit (34) relative to the base platen (24) about a reference axis perpendicular to the plane containing the material (56), the registration system being operable to successively position the die unit in predetermined relationship to the defined areas of the material as successive defined areas are brought into a position to be processed by the die unit (34), wherein:

the registration system includes at least one camera (96) for receiving images;

a camera mount assembly (98) is provided in association with each camera and is secured to a bolster (36) so that the cameras (96) move with the die unit (34) relative to the material;

focusing means (100, 154) for focusing the at least one camera (96) on predetermined locations relative to the die unit (34) corresponding to the predetermined positions of the indicia (94) relative to the defined areas of the material (56);

reference means (20) for providing reference image data representative of the desired position of the area indicia (94) within each image received by the camera (96);

means (20) for interrupting successive movement of the areas toward the die unit (34) when a corresponding area indicia (94) is substantially at said predetermined location relative to the die unit (34) and said camera;

comparison means (20) for comparing the reference image data with an image received by the camera (96) after movement of the material (56) has been interrupted with a corresponding area indicia (94) in said predetermined location thereof and for generating longitudinal,

lateral and angular difference data (X, Y, Θ) representative of the difference in position between the area indicia (94) within the image and the desired position of the area indicia; and control means (20) for receiving the longitudinal, lateral and angular difference data (X, Y, Θ) and operating the longitudinal, angular and lateral shifting means to change the position of the material (56) relative to the die unit (34) to compensate for the difference in position between the indicia within the image and the desired position of the indicia so that one of the defined areas of the material is in register with the die unit (34), for moving the material (56) in the longitudinal direction to compensate for the difference in longitudinal position between the indicia within the image and the desired longitudinal position of the indicia, moving the die unit (34) relative to the material (56) along a direction of travel transverse to the path of travel of the material to compensate for the difference in lateral position between the indicia within the image and the desired lateral position of the indicia, and rotating the die unit (34) relative to the material about a reference axis perpendicular to a plane containing the material to compensate for the difference in angular position between the indicia within the image and the desired angular position of the indicia so that one of the defined areas of the material is in register with the die unit."

XIII. At the second oral proceedings, the appellant argued in outline as follows:

- (a) The Preco 5183 machine displayed at Productronica and delivered to VDO had X-Y registration and a CCD camera mounted on the bolster. Mr Kohl's evidence and D15 corroborated this.
- (b) This machine did not have angular registration because it was being used to produce circular components. However, it would have been obvious to provide this machine with angular registration because this was already well known on such machines.

XIV. At the second oral proceedings, the respondent argued essentially as follows:

- (a) In view of the Board's provisional opinion that the transfer of the opposition was allowable, no further arguments would be advanced on this point.
- (b) The 5183 machine, which was displayed at Productronica and sold to VDO, had only X-Y registration and a CCD camera that was mounted on the press frame and not on the bolster.
- (c) As stated by Mr Gramling at points 10 and 11 of his second declaration, the camera was mounted on the press frame by means of an X-Y-Z slide adjusting stage.
- (d) The drawing D17 clearly showed that the camera was mounted on the frame of the machine in an area

outside of the bolster. The Z direction referred to in connection with the slide was the vertical direction and did not suggest any rotation of the bolster as claimed.

- (e) Mr Kohl's visit to Babenhausen only lasted a couple of hours during which he saw several machines. He could only have inspected the 5183 machine for about half an hour at the most.

- (f) It was not certain that the machine at Vielbrunn was the same as the one at Babenhausen, and it could have been modified in the meantime.

Reasons for the Decision

1. The appeal complies with the requirements referred to in Rule 65 (1) EPC and is, therefore, admissible.

Transfer of opposition

2. The status as an opponent cannot be freely transferred (G 2/04, OJ EPO 2005, 549). However, a transfer takes place if there is a universal successorship, e.g. a merger of companies (T 670/95 of 9 June 1998). In addition, an opposition may be transferred to a third party as part of the opponent's business assets together with the assets in the interests of which the opposition was filed (G 4/88, OJ EPO 1989, 480).

3. It is common ground that the merger of the original opponent Werner Kammann Maschinenfabrik GmbH with KBG "Kehrwieder" Beteiligungs GmbH would result in the

transfer of the opponent's status to the new company (see also point II.1 of Mr Doss' opinion). However, under the applicable German law, this only becomes effective once the merger has been registered. In his opinion, Mr Doss does not seem to be aware that this registration had taken place because he expresses doubts as to whether and why the merger would not be registered. However, it is clear from the extract of the trade register HRB 8090 at entry 2, b) that the registration took place, so that Mr Doss' doubts are no longer relevant. Thus, the opposition was transferred, by way of universal successorship, to KBG "Kehrwieder" Beteiligungs GmbH.

4. It is also clear from section 2(1) of the Annex to Section K of the separation contract that KBG "Kehrwieder" Beteiligungs GmbH transferred, in a second step, all the assets of the former Werner Kammann Maschinenfabrik GmbH to KBG "Kehrwieder" GmbH & Co. KG with the exceptions mentioned in section 5. However, this section, in particular section 5(1) does not contain any relevant exceptions. Furthermore, section 5(2) sets out that all activa and passiva are transferred.
5. This second transfer also only becomes effective on registration. The extracts of the trade registers HRA 5096 and HRB 8090 at entry 3 b) clearly show that this registration took place on 20 October 2004. Thus, KBG "Kehrwieder" GmbH & Co. KG acquired all the business assets of the former Werner Kammann Maschinenfabrik GmbH to which the opposition belonged.

6. In the present case it need not be decided whether there was a universal successorship because under the EPC, as interpreted by the boards of appeal, it is sufficient that certain business assets to which the opposition belonged are transferred. In this situation, the status as opponent is also transferred.

Moreover, it appears to the Board that in the present case, the "Ausgliederung zur Aufnahme" was a universal successorship. Then, even the difficulties under German Law raised in Mr Doss' opinion, where the status as a party to court proceedings is not automatically acquired by universal successorship, but should be laid down in the separation contract, would be satisfied since section 5(3) of the separation contract suggests that all positions, which would include this status, are transferred.

7. The Board therefore judges that the status of opponent was transferred to KBG "Kehrwieder" GmbH & Co. KG, which subsequently changed its name into Werner Kammann Maschinenfabrik GmbH & Co. KG, as is clear from the trade register HRA 5096, entry 4 a) and b).
8. Accordingly, the appellant's request for the transfer of opposition is allowable.

The Patent

9. The patent concerns a registration system for a die cutting press (Figures 1 to 3) in which essentially a die unit 34, containing a punch 48 to be pressed into a die 50, is mounted on a floating bolster (plate) 36 to allow registration of the die unit 34 with the area to

be punched 92 on the material 56. Registration is effected in the "X" direction by moving the material with the feed servo motors 60, 68, in the "Y" direction by moving the bolster on a slide member (Figure 6) 72 with servo motor 80, and in the "θ" (angular) direction by rotating the bolster on the slide member on a bearing (Figure 6) 78 with servo motor 84. The relative position of the die and the area to be punched is determined by locating the position of indicia (Figures 7, 9 and 10) 94 on the material with the aid of a camera 96.

10. In view of the opposition division's objections, claim 1 was amended in the oral proceedings before the opposition division essentially to add the presently disputed feature that the camera 96, having a focussing means 100, e.g. a borescope, was secured to the bolster by a camera mount assembly 98 (Figures 9 and 10).

Prior use

11. From Mr Gramling's second declaration, filed by the patent proprietor himself (see in particular point 12), it became clear that in 1989 VDO purchased from Preco a cutting press model 2024-XY-CCD, as shown in PRECO drawing 200149 (D17), with the serial number 5183. This was the machine shown at Productronica before being delivered to VDO. It used a CCD camera and it had X and Y registration. This is fully in line with Mr Kohl's declaration (D23) and witness statement. These facts were thus no longer in dispute.

12. The Board judges that it has been sufficiently proven that the camera was mounted on the bolster as alleged by the appellant. In essence there are only two possibilities for the position of the camera; either it was mounted on the bolster and moved with the die unit relative to the workpiece, or it was mounted on the frame and was fixed relative to the workpiece. In his witness statement, Mr Kohl referred to specific facts relating to the use of the camera that corroborate his statement that the camera was on the bolster. Firstly, in his declaration he remembers (see D23, page 2, end of second full paragraph) that the bolster, which carries the tool, had various holes for mounting the tool and the camera mount assembly comprising the camera, the borescope and a micrometer slide for fine adjustment of the camera. Secondly, he remembers (see witness statement, page 2, top), that the original Preco borescope, part of the camera mount assembly, had to be replaced because it fell apart through vibration during stamping. This suggests an arrangement of the camera mount assembly close to the die area on the floating bolster and not safely remote on the much more rigid press frame. Thirdly, he remembers (see witness statement, page 2, first full paragraph), that the camera was on an adjustable mount so that different sized tools could be used. Finally, he remembers (last two paragraphs on page 2) how the tool worked, in particular viewing the target image, running the tool and then re-checking that the target image was correct. As Mr Kohl also points out, the function of the press would have to be completely different depending on whether the camera is mounted on the bolster or the frame, only the former appearing to require a check of

- whether the camera is over the reference mark when the tool is correctly positioned.
13. Regarding the reliability of these recollections, the Board notes that, apart from the fact that Mr Kohl had seen the 5183 machine several times at Babenhausen and Vielbrunn, he was the sales manager for Preco presses at CE-Centrum Elektron GmbH, Eppertshausen, the then representative for Preco products in Germany. It was his daily business to understand and explain the operation of these machines and answer customers' questions in order to sell them. Under these circumstances, he must have been acquainted with them so that he was in a position to remember where the camera was mounted.
14. On the other hand, the Board finds Mr Gramling's evidence less reliable. Firstly, in his first declaration before the opposition division, dated 10 March 2000, he stated at point 12 that prior to 1991, the year of the priority application, Preco engineering had not even conceived of a press using machine vision. Only, after Mr Kohl's declaration (D23) did he concede, in his second declaration, that a machine with a CCD camera was available in 1989. Secondly, Mr Gramling simply states that the camera was mounted to the press frame by means of a mounting frame without giving any supporting facts. Finally, the Board considers that in the present case, where the prior use concerned the patent proprietor's own machine, it should have been possible for him to demonstrate what features it possessed.

15. Regarding D17, the Board agrees with Mr Kohl (see witness statement, page 3, last paragraph) that, as it is drawn with the camera looking at the bolster and not at the workpiece, the system cannot function. Although the patent also mentions an embodiment in which there are reference indicia on the bolster (see column 14, line 50ff.), this is additional information to compensate for movement of the camera and it is still necessary to view indicia on the workpiece (see column 15, lines 11 to 19). Thus the Board agrees with the appellant that, even though the body of the camera is shown outside the area of the bolster, little can be learned from this drawing about the precise arrangement of the camera.

16. Finally, the Preco communication D15, which refers to the VDO machine and is uncontested prior art, states that in the CCD system with X-Y registration the camera is mounted "inside the die area". The Board agrees with the appellant that mounted inside implies not only that it is looking at a target inside the die area, i.e. on the workpiece, but that it is actually attached inside as well.

17. The respondent raised doubts about whether the machine at VDO's facility in Vielbrunn was the same as the one at Babenhausen, which was the subject of the Mr Kohl's testimony. In this respect the Board first notes that it is common ground that there is only one machine in question, namely the 5183 machine with a CCD camera, that was shown at Productronica, delivered to VDO at Babenhausen and later transferred to Vielbrunn. Apart from the fact that there is no evidence that there was any modification to this machine, it is sufficient to

prove the prior use if the machine at Babenhausen had the features identified by Mr Kohl.

18. The Board therefore judges that an X-Y registration system for a die cutting press with a camera mounted on the bolster was prior art at the priority date of the patent.

Inventive step

19. It follows that the registration system of claim 1 differs from that of the 5183 machine by having the capability of angular registration.
20. This solves the problem of improving the registration process. However, this problem and its solution are already well known in this field, and there are numerous examples of die stamping machines with X, Y and angular registration, such as that in D1 (see e.g. the abstract) or those mentioned in the course of the discussion of prior use. The Board therefore judges that it would be obvious to consider providing the 5183 machine with angular registration to improve the registration if required. Moreover, as Mr Kohl pointed out, the 5183 machine he saw was being used to produce circular components for which there was no need for angular registration.
21. Accordingly, the subject-matter of claim 1 does not involve an inventive step (Article 56 EPC).

Order

For these reasons it is decided that:

1. The request for the transfer of the opposition is allowed.
2. The decision under appeal is set aside and the patent is revoked.

The Registrar:

The Chairman:

P. Guidi

S. Steinbrener