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**Datasheet for the decision
of 21 February 2018**

Case Number: T 1733/15 - 3.2.05

Application Number: 08715715.2

Publication Number: 2219870

IPC: B41F33/00, B01F13/10

Language of the proceedings: EN

Title of invention:

Colour-Management

Patent Proprietors:

Windmüller & Hölscher KG
X-Rite Switzerland GmbH

Opponent:

Comexi Group Industries, S.A. Unipersonal

Headword:

Relevant legal provisions:

EPC Art. 54(2), 56, 84, 100(c)
RPBA Art. 13(1), 13(3)

Keyword:

Novelty - first auxiliary request (no)

Late-filed auxiliary requests - second to seventh auxiliary requests (not admitted) - eighth auxiliary request (admitted)

Inventive step - eighth auxiliary request (yes)

Claims - clarity - eighth auxiliary request (yes)

Decisions cited:

Catchword:



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Case Number: T 1733/15 - 3.2.05

D E C I S I O N
of Technical Board of Appeal 3.2.05
of 21 February 2018

Appellant: Comexi Group Industries, S.A. Unipersonal
(Opponent) Pol. Industrial de Girona
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Decision under appeal: **Interlocutory decision of the Opposition
Division of the European Patent Office posted on
2 July 2015 concerning maintenance of the
European Patent No. 2219870 in amended form.**

Composition of the Board:

Chairman M. Pooock
Members: P. Lanz
 J. Geschwind

Summary of Facts and Submissions

- I. The appeal by the opponent is against the interlocutory decision of the opposition division on the version in which European patent EP-B-2 219 870 met the requirements of the European Patent Convention.
- II. During the opposition proceedings, the opponent had raised the grounds for opposition according to Articles 100(a) (lack of novelty, lack of inventive step) and 100(c) EPC.
- III. Oral proceedings were held before the board of appeal on 21 February 2018.
- IV. The appellant (opponent) requested that the decision under appeal be set aside and that the patent be revoked.
- V. The joint respondents (patent proprietors) requested that the appeal be dismissed or, in the alternative, that the patent be maintained on the basis of the claims of any of the second to sixth auxiliary requests filed with letter of 22 January 2018, as renumbered during the oral proceedings, or the seventh auxiliary request filed with letter of 19 February 2018, or the eighth auxiliary request filed during the oral proceedings.
- VI. The documents referred to during the appeal proceedings include the following:

D1: WO 03/047865 A1;

D4: DE 201 05 481 U1;

D6: WO 2007/110764 A2.

VII. The independent claims considered allowable by the opposition division have the following wording:

"1. Method for controlling the composition of an ink mixture (11, 21) for at least one printing press (2),
- In which actual optical values (I) of light (7) are obtained, whereas the light (7) has interacted at least with parts of the printing picture, which is generated by the printing press (2) on the printing substrate (6) using an ink mixture (11, 21) which is provided by an ink supply system to the at least one printing press (2)
- and in which, due to the deviation of the actual optical value from optical reference values (S), a corrective ink mixture (31) is created, which is added to the ink mixture (11) which is provided by said ink supply system
- the ink mixtures (11, , 21, 31) [sic] used in the method are provided by different ink mixing devices (16, 24),
- characterized in that
- the first ink mixing device (16) is an ink kitchen (16), which is used for the supply of ink (11) for a first number (N) of printing presses (2),
- the second ink mixing device (24) is a decentralized mixing device (24), which is used for the supply of ink (11) for a second number (M) of printing presses (2),
and
- the first number (N) of printing presses is greater than or equal to the second number (M) of printing presses (2)
- and that the decentralized mixing device (24) provides for a corrective ink mixture (31), which changes the ratio of the amounts of ink pigments of the

ink mixture (11) on the printing machine (2) to each other."

"13. Mixing device for supplying of ink mixtures for at least one printing press (2), comprising at least two ink repositories and a dosing device, characterized in that

- the ink mixing device (24) is a decentralized mixing device (24), which is used for the supply of ink (11) for a second number (M) of printing presses (2), wherein a control and evaluation device (23) is provided,
- the ink mixing device is connected via a data link to the control and evaluating device (23)
- which is adjusted so as to determine the composition of the corrective ink mixture (31),
- which changes the ratio of the amounts of ink pigments of the ink mixture (11) on the printing machine (2) to each other,
- wherein the data link is adjusted so that the control and evaluating device (23) receives information from a control device (3) of the printing machine (2) about the optical value deviation (ΔK) at the printing substrate and about the ink composition that was used."

"15. System (1) for controlling the composition of a [*sic*] ink mixture for at least one printing press (2), which comprises at least one optical measuring device, which can record actual optical values (I) of light, whereby the recordable light has interacted at least with parts of the printing picture (9), that is creatable on a printing substrate by at least one printing press (2) using an ink mixture which is provided by an ink supply system of said printing press, and

which comprises components, with which a corrective ink mixture is creatable on the basis of deviation of the actual optical values (I) from optical reference values (S), which comprises at least two different ink mixing devices (16, 24), each usable to supply ink mixtures (11, 31)

characterized in that

- the first ink mixing device (16) is an ink kitchen (16), which is usable for the supply of ink (11) for a first number (N) of printing presses (2),
- the second ink mixing device (24) is a decentralized mixing device (24), which is used for the supply of ink (11) for a second number (M) of printing presses (2),
- the first number (N) of printing presses is greater than or equal to the second number (M) of printing presses (2)
- and whereas the system includes a control and evaluating device (3,19,23) which is adjusted so as to determine the composition of the corrective ink mixture (31),
- which changes the ratio of the amounts of ink pigments of the ink mixture (11) on the printing machine (2) to each other."

VIII. Compared with the foregoing version, the following feature has been added to claim 13 of the second auxiliary request:

"- wherein also data on optical characteristics of the printing substrate are provided to the control device (23)."

IX. Compared with the version cited under point VII., the following feature has been added to claim 13 of the third auxiliary request:

"- wherein data gained by measurement and/or estimation of the quantity of quantity [sic] of the ink (11) at the printing press, by observation of the ink composition which can be accommodated by optical measurements at the printing substrate and/or by the measurements of its viscosity, are provided to the control and evaluation device (23)."

- X. Compared with the version cited under point VII., the following feature has been added to claim 13 of the fourth auxiliary request:

"- wherein the printing machine is a gravure printing machine or a flexographic printing machine
- wherein the printing machine comprises an optical measurement device (4) for checking the printed image."

- XI. The fifth auxiliary request comprises amended claims 1 and 15. Compared with the version cited under point VII., the following feature has been added to claim 1:

"- wherein for the supply of said correction mixture (31) less different kinds of basic inks (26) are used than for the production of the basic ink mixture (21)."

The following feature has been added to claim 15:

"- wherein for the supply of said correction mixture (31) less different kinds of basic inks (26) are provided than for the production of the basic ink mixture (21)."

- XII. Compared with the version cited under point VII., the following feature has been added to claim 13 of the sixth auxiliary request:

"- wherein the data link comprises Ethernet interfaces or interfaces using radio or mobile phone frequencies."

XIII. Compared with the version cited under point VII., the following feature has been added to claim 13 of the seventh auxiliary request:

"- wherein the mixing device is a mobile mixing device."

XIV. In the eighth auxiliary request the claims directed to the mixing device have been deleted. Remaining independent claims 1 and 13 correspond to claims 1 and 15 as cited under point VII..

XV. The arguments presented by the appellant are essentially as follows:

Version the opposition division considered allowable

Document D1 disclosed two ink repositories (see reference signs 14 to 16) and dosing devices (see reference signs 51 to 53), a control and evaluation device (see page 4, lines 22 to 26) connected via a data link to the mixing device and an interface to receive information from a control device of a printing machine. Since the functionality of the above components and their connection were disclosed on page 4, lines 14 to 31 of document D1, the subject-matter of claim 13 was not new.

Second to seventh auxiliary requests

The second to sixth auxiliary requests did not contain complete sets of claims, nor were they properly substantiated at filing. For this reason alone, the

second to sixth auxiliary requests were inadmissible. Moreover, the seventh auxiliary request was not only filed very late but also limited with features taken from the detailed description.

Eighth auxiliary request

Although the claims directed to the mixing device as such had been deleted, the remaining system claim still made reference to mixing devices. The eighth auxiliary request should therefore not be admitted.

On the issue of Article 100(c) EPC, it was observed that the addition of the wording "*to each other*" in the last feature of claim 1

" - and that the decentralized mixing device (24) provides for a corrective ink mixture (31), which changes the ratio of the amounts of ink pigments of the ink mixture (11) on the printing machine (2) to each other."

added subject-matter. Contrary to the opposition division's view, this amendment was not purely linguistic. While the original version of the above feature without the wording "*to each other*" covered the possibility of changing the ratio of pigments by adding solvent, this option was now excluded by the amendment. Moreover, when assessing the original disclosure of the claimed invention, the discussion of the prior art in the application as filed and the problem to be solved (i.e. a faster adjustment of the printing picture) also had to be taken into account. From this point of view, it was clear that the addition of "*to each other*" was only supported in combination with and therefore inextricably linked to densitometric measurements.

As to the question of inventive step, the subject-matter of independent claims 1 and 15 essentially differed from document D1 in that the ink kitchen was missing. However, ink kitchens were generally known (see D1, page 4, lines 22 to 26). If the skilled person were to add such a known ink kitchen to the apparatus suggested in document D1 (see the figure with the corresponding part of the description), he would directly arrive at the claimed invention. In fact, the two ink mixing devices of the contested claim did not interact with each other and were hence merely juxtaposed. In view of that, no inventive skills were required for arriving at the claimed solution of providing an additional mixing device to the apparatus of document D1. Moreover, document D4 (see Figure 9 and the corresponding passages in the description on page 8, lines 13 to 15 and page 16, second paragraph onwards) taught to provide two ink mixing devices outside the printing press, wherein these ink mixing devices could supply ink to two printing presses. Also, document D6 described an ink mixing device autonomous from the printing press. Consequently, the claimed subject-matter was rendered obvious by common general knowledge, document D4 and/or document D6. Alternatively, document D4 could be used as a starting point. The missing aspect of the corrective ink would be rendered obvious by document D1.

Finally, paragraph [0061] of the amended description referred to the mobile mixing device of Figure 2. However, this contradicted the claims of the eighth auxiliary request, which did not contain a claim directed to a mixing device as such. Hence, the eighth auxiliary request did not meet the requirements of Article 84 EPC.

XVI. The respondents' submissions can be summarised as follows:

Version the opposition division considered allowable

Document D1 did not disclose the feature of the decentralised mixing device, which was used for the supply of ink for a second number of printing presses, wherein a control and evaluation device was provided. It had to be noted that in document D1 the controller (8) belonged to the printing machine. By contrast, according to the claimed subject-matter there was a further controlling and evaluation device for changing the ink recipe. The passage on page 4, lines 22 to 26 of document D1 referred to a centralised mixing unit, which corresponded to reference sign 16 of the contested patent. The feature of the mixing device being decentralised implied that it was movable, which was not the case in document D1. The subject-matter of claim 13 was thus new.

Second to seventh auxiliary requests

The second to sixth auxiliary requests were filed one month before the date of the oral proceedings, which was normally acceptable in proceedings before the EPO. Their subject-matter was not unexpected for the appellant, which was commercially active in the same market segment. Moreover, a copy of the seventh auxiliary request had been sent directly to the appellant. The basis for restricting claim 13 of the second and third auxiliary requests could be found in the passage of the description dealing with Figures 2 and 3, which had already served as a basis for amending the claims during the opposition proceedings. The fifth

auxiliary request was based on the granted dependent claims. The subject-matter of all the auxiliary requests was inventive in view of documents D1, D4 and D6. The second to seventh auxiliary requests were thus admissible.

Eighth auxiliary request

Compared with the request considered allowable by the opposition division, the amendment to the eighth auxiliary request consisted only in the deletion of claims 13 and 14. The remaining claims were unamended, and the request was therefore admissible.

On the objection of added subject-matter, it was put forward that the overall teaching of the patent in suit aimed at correcting the tone of the colour.

Accordingly, claim 1 of the application as originally filed related to controlling the composition of an ink mixture by adding a corrective ink mixture to a (basic) ink mixture. In order to further clarify that the ink was not just made thinner by watering it down by adding more solvent, the wording "*to each other*" had been added. However, this modification did not change the technical teaching of the patent application. The ratio of pigments to each other could be measured with a densitometer or a spectral-photometer. Claim 1 was therefore in line with the respective requirements of the EPC.

Regarding inventive step, the cited prior art did not disclose that two ink mixtures were produced in two different ink mixing devices. The combination of two mixing devices was therefore not obvious. Moreover, document D4 did not disclose to change the ratio of the ink pigments to each other as required by the claims;

the second mixing valve of Figure 9 of document D4 was foreseen for mixing a transparent ink carrier with the ink. Document D6 did not mention printing presses or decentralised mixing devices. The claimed subject-matter was therefore inventive.

Finally, no contradiction was apparent between the amended description and the claims of the eighth auxiliary request. The provisions of Article 84 EPC were thus met.

Reasons for the Decision

1. *Claim 13 considered allowable by the opposition division - novelty*
- 1.1 Document D1 discloses a mixing device (12) for at least one printing press (1), wherein also a control and evaluation device (8) and the respective data links are provided (see page 4, lines 23 to 26; page 5, lines 12 to 14). The passage on page 4, lines 22 to 26 explicitly suggests that the mixing device could be equipped with its own control and evaluation device. Furthermore, the printing press is provided with an optical sensor (4) for detecting the colour of the printed image. On the basis of the optical deviation from a set value for the colour, the control and evaluation device determines the composition of the corrective ink (D1, page 8, lines 12 to page 9, line 2). The issue of novelty hinges on the question of whether the known mixing device of document D1 can be considered a decentralised mixing device.
- 1.2 In that respect, it is noted that the mixing device of document D1 is a self-contained unit, optionally including its own controller (D1, page 4, lines 22 to

26). From a structural point of view, the mixing device is suitable for being used as a decentralised mixing device. Consequently, the qualification as centralised or decentralised depends on the context in which the mixing device is used. This aspect is not suitable for structurally distinguishing the subject-matter of claim 13 from the mixing device known from document D1.

- 1.3 This finding is not altered by the respondents' allegation that the feature of the mixing device being decentralised necessarily implies that it is mobile. Whether the decentralised device is mobile or immobile generally is a matter of design and/or use. This understanding is in line with the description of the opposed patent, which presents the mobility of the mixing device only as an option (see paragraph [0019]: *"A mixing device can also be mobile."*; paragraph [0072]: *"This ink mixing device 24 can be exclusively allocated to a single printing press. In this case it can be combined or attached [sic] to the machine frame of the respective printing press. However, such an ink mixing device can also be designed for the provision of ink and preferably corrective ink for several machines. In order to do this, this unit 24 can be mobile, e.g. the entire unit can be moved on wheels 34."*).

Therefore, the mobility of the decentralised mixing device is not an implicit feature of the contested claim.

- 1.4 In view of the above, the board concludes that the subject-matter of claim 13 is not new over document D1 (Article 54(2) EPC).

2. *Second to seventh auxiliary requests - admissibility*

2.1 The present second to seventh auxiliary requests were submitted by the respondents after they had replied to the appeal and after the summons to attend oral proceedings had been issued. While the second to fifth and seventh auxiliary requests were submitted for the first time after the reply to the appeal, the sixth auxiliary request had been filed during the opposition proceedings as (the then) third auxiliary request, but had not been examined by the opposition division. However, the respondents chose not to rely on this request in the reply to the appeal. It therefore did not form part of the respondents' appeal case according to Article 12(2) RPBA. Since the filing of the second to seventh auxiliary requests constitutes an amendment of the respondents' case, their admission is at the board's discretion (Article 13(1) and (3) RPBA). Relevant criteria for exercising this discretion include the complexity of the new subject-matter, the current state of the proceedings and the need for procedural economy.

2.2 In the case at hand, account has been taken of the fact that the second to sixth auxiliary requests were introduced into the appeal proceedings at a late stage without any substantiation as to why their subject-matter was considered allowable. The seventh auxiliary request and a proper substantiation for the second to sixth and the seventh auxiliary requests were only presented two days prior to the oral proceedings. Moreover, it is not apparent that these auxiliary requests constitute a reaction to unexpected developments in the appeal proceedings. Finally, it is noted that with these requests the respondents are not

pursuing their existing line of defence, and that the newly filed requests are divergent in themselves and partly rely on features taken from the detailed description for restricting the claims. For these reasons, the introduction of the second to seventh auxiliary requests is not compatible with the principles of procedural fairness and economy of procedure. Consequently, the second to seventh auxiliary requests are inadmissible under Article 13(1) RPBA.

3. *Eighth auxiliary request*

3.1 Admissibility

Claims 1 to 13 of the eighth auxiliary request are identical to claims 1 to 12 and 15 considered allowable by the opposition division in the decision under appeal, which forms the basis of the present proceedings. The eighth auxiliary request does not raise any new issues. Hence, it is admitted under Article 13(1) and (3) RPBA.

3.2 Added subject-matter - claim 1

3.2.1 All the embodiments (see Figures 1 to 3, 11 and 12) and claim 1 of the original application underlying the patent in suit concern the provision of different mixing devices for, respectively, producing a basic ink mixture and a corrective ink mixture in order to correct the colour of the ink and arrive at a desired colour in the subsequent printing step. Figures 9 and 10 further illustrate that mixing a basic ink mixture and a corrective ink mixture leads to a correction of the chromacy coordinates in a colour space from an actual value to a target value. Against this

background, adding a corrective ink mixture to a basic ink mixture necessarily implies changing the ratio of the ink pigments to each other. Consequently, for the skilled person the contested feature is implicitly, but directly and unambiguously, disclosed in the application as originally filed.

- 3.2.2 Moreover, changing the ratio of ink pigments to each other by mixing different ink compositions is independent of whether the optical values of the resulting ink are measured with a densitometer (and then extrapolated) and/or with a spectral photometer. In the application as filed, densitometer and spectral photometer are presented as alternatives (see page 6, lines 17 to 19). Additionally, original Figure 11 and the corresponding part of the description disclose the possibility of using them in combination. Hence, the presence of an inextricable link between the added wording "*to each other*" and the measurement device being a densitometer is not evident.

The unambiguous disclosure of the feature in question is not altered by the fact that the original application additionally mentions the possibility of adding solvent to the ink in order to correct its viscosity.

- 3.2.3 For these reasons, the board concludes that claim 1 of the eighth auxiliary request does not comprise added-subject-matter (Article 100(c) EPC).

3.3 Inventive step

3.3.1 Closest prior art

Document D1 relates to a printing press, which is equipped with an optical sensor for detecting the colour of the printed picture. On the basis of an optical deviation from a set value for the colour, the control and evaluation device determines the composition of the corrective ink, which is then added to a basic ink mixture. Document D1 therefore belongs to the same technical field as the claimed subject-matter and has the most technical features in common with it. Neither document D4 nor document D6 clearly discloses the aspect of adding a corrective ink mixture to a basic ink mixture (produced in a first ink mixing device) in view of a deviation of optical values measured at the printed substrate. Therefore, document D1 is the most promising starting point for assessing inventive step.

3.3.2 Differing feature

Based on the appellant's submissions, claims 1 and 13 differ from the solution known from document D1 at least in the aspects that the basic ink mixture and the corrective ink mixture are provided from different mixing devices, one being the ink kitchen, the other being decentralised.

3.3.3 Objective technical problem

The differing features make it possible to separately modify the recipes of the two ink compositions to be mixed. In view of this technical effect, the objective

technical problem resides in a more effective colour adjustment of the printing image.

3.3.4 Obviousness of the solution

Regarding the proposed solution, the appellant had relied, *inter alia*, on the teaching of document D1 starting on page 4, lines 22. However, the board observes that this citation essentially discloses a mixing device, which provides a basic ink mixture and subsequently adjusts it if a correction is needed. It does thus not point to the presently claimed solution based on a separate production of two mixtures in two different ink mixing devices. Regarding the appellant's argument that the two ink mixing devices did not interact and were merely juxtaposed, the board observes that it is the combination of the two ink mixing devices in the claimed method and system which solves the technical problem of a more effective colour adjustment of the printing image, the subject-matter claimed thus goes beyond a mere juxtaposition of two known mixing devices. For these reasons, the combination of the apparatus of document D1 and the common general knowledge does not render obvious the subject-matter claimed.

The same conclusion applies if the apparatus of D1 is combined with document D4 (or *vice versa*). Figure 9 of document D4 and the corresponding passages in the description on page 8, lines 13 to 15 and page 16, second paragraph onwards, show an arrangement with a first mixing valve (35) for mixing a printing ink from two basic colours (5, 5') and a second mixing valve (16) for subsequently adjusting the colour saturation of the ink by adding a transparent carrier liquid (6). Hence, document D4 does not teach or suggest to adjust

the colour of a printed product, i.e. the ratio of the amounts of ink pigments to each other, by adding a corrective ink mixture to a basic ink mixture, wherein these ink mixtures are produced separately in different ink mixing devices. The board adds that the aspect of (and suitability for) changing the ratio of ink pigments to each other is a mandatory and limiting feature of both method claim 1 and system claim 13. Consequently, the board does not share the appellant's view that this aspect could be disregarded for the assessment of inventive step.

Finally, document D6 does not mention printing presses or decentralised mixing devices. Neither does it point the skilled person to the claimed solution.

The board concludes that none of the cited prior art discloses an adjustment of the ratio of the amounts of ink pigments to each other by adding a corrective ink mixture to a basic ink mixture, wherein these ink mixtures are produced separately in different ink mixing devices. In view of that, the appellant's submissions based on documents D1, D4, D6 and/or the common general knowledge are, on an objective basis, not sufficient for demonstrating that the subject-matter of claims 1 and 13 of the eighth auxiliary request is obvious to the person skilled in the art. Hence, the presence of an inventive step has to be acknowledged (Article 56 EPC).

3.4 Clarity

3.4.1 The appellant indicates that paragraph [0061] of the amended description referred to a mobile mixing device in Figure 2. However, this contradicted the claims of the eighth auxiliary request, which did not contain a

claim directed to the mixing device as such. Therefore, this auxiliary request did not meet the requirements of Article 84 EPC.

- 3.4.2 The board notes that paragraph [0061] is a summary of the drawings of the patent. The general reference to Figure 2 therefore has to be read in the context of the specific parts of the description relating to this figure, in particular paragraph [0081]. The latter underlines the fact that the decentralised mixing device of Figure 2 is meant to replace the decentralised mixing device shown in the system of Figure 1. Consequently, the discussion of Figure 2 in the amended description makes it clear that the depicted mixing device forms part of a mixing system. It does not imply that protection is sought for this mixing device as such. Consequently, paragraph [0061] of the amended description does not contradict the claims of the eighth auxiliary request. The eighth auxiliary request meets the requirements of Article 84 EPC.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the department of first instance with the order to maintain the patent as amended in the following version:
 - claims 1 to 13 submitted during the oral proceedings as an eighth auxiliary request,
 - description pages 2 and 3 submitted during the oral proceedings,
 - description pages 4 to 14 of the patent specification,
 - Figures 1 to 12 of the patent specification.

The Registrar:

The Chairman:



M. H. A. Patin

M. Poock

Decision electronically authenticated