

Internal distribution code:

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

**Datasheet for the decision
of 21 June 2017**

Case Number: T 2299/13 - 3.2.05

Application Number: 06291309.0

Publication Number: 1754610

IPC: B41J2/21

Language of the proceedings: EN

Title of invention:

Ink-jet head, ink-jet printer having the ink-jet head and printing method

Patent Proprietor:

Mimaki Engineering Co., Ltd.

Opponent:

Sagittarius Intellectual Property Consultants Ltd

Relevant legal provisions:

EPC Art. 123(3)

RPBA Art. 13(1)

Keyword:

Amendments - broadening of claim (yes)
Late-filed requests - amendments after arrangement of oral proceedings - requests clearly unallowable (yes) - procedural economy

Decisions cited:

G 0001/93, T 0108/91



Beschwerdekammern
Boards of Appeal
Chambres de recours

European Patent Office
D-80298 MUNICH
GERMANY
Tel. +49 (0) 89 2399-0
Fax +49 (0) 89 2399-4465

Case Number: T 2299/13 - 3.2.05

D E C I S I O N
of Technical Board of Appeal 3.2.05
of 21 June 2017

Appellant I:
(Patent Proprietor)

Mimaki Engineering Co., Ltd.
1333-3 Kazawa
Tohmi-shi, Nagano 389-0514 (JP)

Representative:

Kenji Uchida
Fédit-Loriot
38, avenue Hoche
75008 Paris (FR)

Appellant II:
(Opponent)

Sagittarius Intellectual Property Consultants
Ltd
Mercury House
19-21 Chapel Street
Marlow
SL7 3HN (GB)

Representative:

Andrew John Teuten
Sagittarius IP
Three Globeside
Fieldhouse Lane
Marlow, Buckinghamshire SL7 1HZ (GB)

Decision under appeal:

**Interlocutory decision of the Opposition
Division of the European Patent Office posted on
24 September 2013 that European Patent No.
1 754 610 in amended form meets the requirements
of the EPC.**

Composition of the Board:

Chairman M. Poock
Members: S. Bridge
 G. Weiss

Summary of Facts and Submissions

- I. Both parties appealed against the interlocutory decision of the opposition division which considered that European patent No. 1 754 610 as amended according to auxiliary request 8 in the version filed at the oral proceedings at 15:45 on 9 September 2013 meets the requirements of the EPC.
- II. The opposition was filed against the patent as a whole based on Article 100(a) EPC 1973 (lack of novelty, Article 54 EPC 1973, and lack of inventive step, Article 56 EPC 1973), Article 100(b) EPC 1973 and Article 100(c) EPC 1973.
- III. Oral proceedings were held before the board of appeal on 21 June 2017.
- IV. Appellant I (patent proprietor) requested that the decision under appeal be set aside and the patent be maintained in amended form based on the claims filed with letter of 4 May 2017 as main request and auxiliary requests 1 to 5 and filed in the oral proceedings before the board as auxiliary request 6.
- V. Appellant II (opponent) requested that the decision under appeal be set aside and that the European patent be revoked.
- VI. Claim 1 according to the main request read as follows:

"An ink-jet head (30) comprising:
 an image printing head (32b) configured to print an image on a medium, in which a plurality of image printing ink discharge ports are aligned; and

a ground-color-layer printing head (32a) configured to print a ground-color-layer on the medium, in which a plurality of ground-color-layer printing ink discharge ports are aligned,

the medium and the ink-jet head being configured to relatively move parallel to a first line (Y) and along a second direction (X) substantially perpendicular to the first line,

said image printing head and said ground-color-layer printing head being aligned in said line (Y) so as to coincide with one another along said line (Y), characterized by

said ink-jet head further ~~comprising~~ **operated by** a jetting controller, **the jetting controller including a ground-color-layer ink jetting unit (70)** configured to jet from a part of said plurality of ground-color-layer printing ink discharge ports, aligned in a first part in the second direction of the ground-color-layer printing head and **an image ink jetting unit (80) configured to jet** from a part of said plurality of image printing ink discharge ports, aligned in a second part in the second direction of the image printing head, **the position of** said first part of said ground-color-layer printing head and **the position of** said second part of said image printing head being displaced along **said first line (Y)** and said second direction (X),

with the proviso that the ground-color-layer ink jetting unit (70) and the image ink jetting unit (80) are not configured to simultaneously perform the first printing."

VII. Claim 1 according to auxiliary request 1 only differs from claim 1 according to the main request in that the expression

"said ink-jet head further ~~comprising~~ **operated by** a jetting controller"

in the characterising part is replaced by:

"said ink-jet head further ~~comprising~~ **using** a jetting controller **for operation**".

VIII. Claim 1 according to auxiliary request 2 only differs from claim 1 according to the main request in that the expression

"said ink-jet head further ~~comprising~~ **operated by** a jetting controller"

in the characterising part is replaced by:

"said ink-jet head further comprising **the use of** a jetting controller **for operating the ink jet head**".

IX. Claim 1 according to auxiliary request 3 only differs from claim 1 according to the main request in that the expression

"said ink-jet head further ~~comprising~~ **operated by** a jetting controller, **the jetting controller**"

in the characterising part is replaced by:

"said ink-jet head further comprising **the ground-color-layer printing head (32a) and image printing head (32b) operated by** a jetting controller".

X. Claim 1 according to auxiliary request 4 only differs from claim 1 according to the main request in that the expression

"included in an ink-jet printer, the ink-jet head (30)"

is added after

"An ink-jet head (30)"

and in that the expression

"said ink-jet head further ~~comprising~~ **operated by** a jetting controller"

in the characterising part is replaced by:

"said ink-jet head further comprising **the use of** a jetting controller **formed by an electric control circuit of a host computer (100) that is configured to drive the ink-jet printer**".

XI. Claim 1 according to the auxiliary request 5 read as follows:

"An ink-jet printer comprising an ink-jet head (30) comprising:

an image printing head (32b) configured to print an image on a medium, in which a plurality of image printing ink discharge ports are aligned; and
a ground-color-layer printing head (32a) configured to print a ground-color-layer on the medium, in which a plurality of ground-color-layer printing ink discharge ports are aligned,

the medium and the ink-jet head being configured to relatively move parallel to a first line (Y) and along a second direction (X) substantially perpendicular to the first line,

said image printing head and said ground-color-layer printing head being aligned in said line (Y) so as to coincide with one another along said line (Y),
characterized by

said ink-jet head further **operated** by a jetting controller, **the jetting controller including a ground-color-layer ink jetting unit (70)** configured to jet from a part of said plurality of ground-color-layer printing ink discharge ports, aligned in a first part in the second direction of the ground-color-layer printing head and **an image ink jetting unit (80) configured to jet** from a part of said plurality of image printing ink discharge ports, aligned in a second part in the second direction of the image printing head, **the position of** said first part of said ground-

color-layer printing head and **the position of** said second part of said image printing head being displaced along **said first line (Y) and** said second direction (X),

with the proviso that the ground-color-layer ink jetting unit (70) and the image ink jetting unit (80) are not configured to simultaneously perform the first printing; and

a sending unit (40) configured to send forth and move a medium (10) on a platen (20) in the direction X, characterized in that:

said ink jetting units (70) and (80) are configured to operate the ground-color-layer printing head to print the ground-color-layer on the medium and to operate the image printing head to print the image on the ground-color-layer and, alternatively, are configured to operate the image printing head to print the image on the medium and to operate the ground-color-layer printing head to print the ground-color-layer on the image;

wherein the ink-jet printer is configured to print the image (60) over the front surface of the ground-color-layer (50) previously printed on the medium (10) and, alternatively, to print the ground-color-layer (50) over the back surface of the image (60) previously printed on the medium (10)."

XII. Claim 1 according to auxiliary request 6 differs from claim 1 according to auxiliary request 5 only in that the expression

"with the proviso that the ground-color-layer ink jetting unit (70) and the image ink jetting unit (80) are not configured to simultaneously perform the first printing;"

is deleted.

XIII. The following documents were discussed in the decision under appeal:

E4: WO 2005/105452 A1; (Article 54(3) EPC 1973)
E4a: EP 1 741 555 A1; (English language family
member of document E4)
E5: WO 2006/078799 A2; (Article 54(3) EPC 1973)
E10: JP 10-193579;
E20: US-A-2003/0202026.

XIV. The arguments of Appellant I (patent proprietor) in the written and oral proceedings can be summarised as follows:

The feature "*said ink-jet head further comprising a jetting controller ...*" added to claim 1 prior to grant is an unfortunate mistake (Article 123(2) EPC). The skilled person will realise this for the following reasons.

Appellant I refers to documents E4 (E4a), E5, E10 and E20, because they are already in the procedure. These documents provide evidence of the knowledge of the skilled person. This knowledge includes that the jetting controller would not be comprised in the ink-jet head: Figure 1 of document E20 illustrates the controller 118 as separate from the carriage 112 with heads; Figure 10 of document E10 similarly discloses the CPU 11801 (understood as jetting controller) separate from the printer 1806; Both documents E4 and E5 disclose that a larger carriage is a disadvantage (document E5, page 3; document E4a, paragraph [0009], first sentence). The skilled person is thus aware that the weight of the reciprocating carriage should be kept low and would not consider that the controller is comprised by the ink-jet head.

The application mentions the ink-jet head separately from the jetting controller (A-publication: paragraph [0015] - the "*ink-jet printer has an ink-jet head and a jetting controller*"; Claim 1 as filed only mentions the print head while the controller is only introduced in dependent claims 3 and 5 and claim 11 also mentions the controller after the ink-jet head. The example in paragraphs [0036] and [0056] discloses that the ink jetting units 70 and 80 "*may be formed by an electric control circuit of a host computer 100 which drives the printer*". Figures 5 and 7 disclose that the image jetting unit 80 cannot simultaneously be in the print heads 32b to 32e).

Therefore, the skilled person realises that the feature "*said ink-jet head further comprising a jetting controller ...*" constitutes an inaccurate technical statement which is evidently inconsistent with the whole disclosure of the patent application. In accordance with decision T 108/91 such a statement can be replaced without violating Article 123(2) EPC. Similarly, according to decision G 1/93 a patent can be maintained if there is a basis in the application as filed for replacing such subject-matter without violating Article 123(3) EPC.

To exclude documents E4 and E5 (which are prior art under Article 54(3) EPC 1973), a disclaimer "*with the proviso that the ground-color-layer ink jetting unit (70) and the image ink jetting unit (80) are not configured to simultaneously perform the first printing*" is added to the respective claim 1 of the main request and auxiliary requests 1 to 5. This disclaimer restores novelty and is considered to be clear.

The main request and auxiliary requests 1 to 5 constitute a fair response to the board's preliminary opinion annexed to the summons to oral proceedings and should be admitted.

In view of the issues raised by the opponent during the oral proceedings before the board with respect to the disclaimer, this disclaimer has been deleted from the subject-matter of the claims according to auxiliary request 6. Thus, auxiliary request 6 should be admitted into the proceedings.

XV. The arguments of appellant II (opponent) in the written and oral proceedings can be summarised as follows:

The main request and auxiliary requests 1 to 5 constitute late filed amendments which introduce complexity by raising legal issues with respect to Article 123(3) EPC and with respect to the use of a disclaimer. Admitting such requests at such a late stage would be contrary to principle of procedural economy.

The feature of granted claim 1 "*said ink-jet head further comprising a jetting controller ...*" is not included in the respective claim 1 of the main request and auxiliary requests 1 to 5. In each of these claims, the text "*comprising a jetting controller*" has been respectively replaced by one of the expressions "*operated by a jetting controller*", "*using a jetting controller*" or "*comprising the use of a jetting controller*". None of these expressions require that the ink-jet head comprises the jetting controller. In addition, the amended wording leaves open whether or not the jetting controller is part of the subject-matter of the claims concerning an ink-jet head. The contested feature is thus no longer included in the

subject-matter of the respective claim 1 of the main request or auxiliary requests 1 to 5. Any printer having a jetting controller that is not part of the ink-jet head and also having the other features of the claims is now covered by the subject-matter of the main request and of auxiliary requests 1 to 5, whereas such printers were excluded from the scope of the patent as granted. This is the situation that Article 123(3) EPC is intended to prevent.

Decision T 108/91 is superseded by the more recent G 1/93 which requires that the amended claims meet the requirements of Article 123(3) EPC. These requirements are clearly not met by the respective claim 1 of the main request and auxiliary requests 1 to 5.

The text "*with the proviso that the ground-color-layer ink jetting unit (70) and the image ink jetting unit (80) are not configured to simultaneously perform the first printing*" was added as a disclaimer to the respective claim 1 of the main request and auxiliary requests 1 to 5. There is no basis for this wording in either the application as filed or documents E4 or E5. The wording uses an unclear expression "*first printing*" which does not appear in the application as filed or in any of documents E4 and E5, does not appear to exclude only the minimum necessary to restore novelty and instead appears to become relevant to inventive step discussions, for example, with respect to document E20. The wording of this disclaimer was not included in any previous request. The main request and auxiliary requests 1 to 5 thus constitute a new direction which does not converge with respect to any previous request. Admitting the main request and auxiliary requests 1 to 5 would thus be contrary to the principle of procedural

economy. Therefore, these requests should not be admitted into the proceedings.

The amendments made to the claims of auxiliary request 6 neither address nor overcome the issues raised in the context of the higher ranking requests with respect to Article 123(3) EPC. Thus auxiliary request 6 should similarly not be admitted into the proceedings.

Reasons for the Decision

1. Admissibility of the main request and of auxiliary requests 1 to 5

1.1 These requests were filed with the submissions dated 4 May 2017, i.e. after the reply to the appeal of the other appellant and after the summons to oral proceedings before the board.

According to Article 13(1) RPBA, any amendment to a party's case after it has filed its grounds of appeal or reply may be admitted and considered at the board's discretion. The discretion shall be exercised in view of inter alia the complexity of the new subject-matter submitted, the current state of the proceedings and the need for procedural economy.

The board therefore considered these aspects as follows and in particular the current state of the proceedings with respect to objections raised under Article 123(2) and (3) EPC.

1.2 The contested decision considered that the feature of granted claim 1 "*said ink-jet head further comprising a*

jetting controller ..." did not meet the requirements of Article 123(2) EPC (Point II.2.1).

With their grounds of appeal, appellant II (opponent) raised the issue of the amended claims not meeting the requirements of Article 123(3) EPC (see section "*Article 123(3) EPC*").

Thus appellant I (patent proprietor) had reasons to address the issue of the claims meeting both the requirements of Article 123(2) and (3) EPC. In the subsequent course of these appeal proceedings, appellant I made use of the possibility to file amendments, by filing new sets of requests with each of the submissions dated 28 May 2014, 18 September 2014, 3 April 2015 and 4 May 2017.

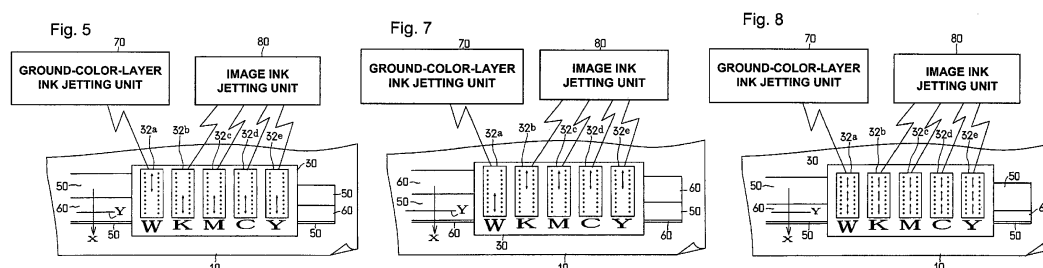
- 1.2.1 Concerning the feature of granted claim 1 "*said ink-jet head further comprising a jetting controller ...*" - Article 123(2) EPC

With respect to the "*jetting controller*" the application as filed only discloses:

- that "*According to another aspect of the present invention, an ink-jet printer has an ink-jet head and a jetting controller*" and that "*The jetting controller is configured to jet from the part of the plurality of ground-color-layer printing ink discharge ports and the part of the plurality of image printing ink discharge ports*" (paragraph [0015] of the application as published);
- that "*The image ink jetting unit 80 and the ground-color-layer ink jetting unit 70 are formed by, for example, an electric control circuit of a host*

- computer 100 which drives the printer" (paragraphs [0036] and [0056] of the application as published);
- that "The ink-jet printer ... compris[es] an ink-jet controller configured to operate the ground-color-layer printing head to print the ground-color-layer on the medium and configured to operate the image printing head to print the image on the ground-color-layer" (claims 3 and 5 of the application as published); and
- that "An ink-jet printer compris[es]: ... a jetting controller configured to jet from said part of the plurality of ground-color-layer printing ink discharge ports and said part of the plurality of image printing ink discharge ports" (claim 11 of the application as published).

Therefore the description of the application as filed only discloses that the ink-jet printer comprises the jetting controller (paragraph [0015], claims 3, 5 and 11) and that the jetting controller may, for example, be formed by "an electric control circuit of a host computer 100 which drives the printer" (paragraphs [0036] and [0056] of the application as published).



Figures 5, 7 and 8 which respectively illustrate printers according to embodiments of the invention (paragraph [0018] of the application as published) only contain abstract representations of the "image ink jetting unit 80" and the "ground-color-layer ink jetting unit 70" which are not directly and unambiguously comprised in any of the print heads 32a to 32e.

Therefore, there is no direct and unambiguous disclosure in the application as filed that the ink jet head comprises the "*jetting controller*". The above contested feature thus does not have any basis in the application as filed.

- 1.2.2 It was argued on behalf of appellant I (patent proprietor), that the skilled person would consider the contested feature "*said ink-jet head further comprising a jetting controller ...*" as an inaccurate technical statement which is evidently inconsistent with the whole disclosure of the patent application. This was justified through references to
- the prior art of document E10 and E20 which have controllers which are not included in the ink-jet head;
 - the prior art documents E4 and E5 which teach that it is a disadvantage if the carriage carrying the ink-jet heads is large; and
 - the application as filed which refers to the ink-jet heads and the jetting controller separately.

The board cannot accept this argument, because the prior art cannot be used to interpret the claims of the patent in suit. This applies all the more so to late published documents E4 and E5, which are only prior art under Article 54(3) and 54(4) EPC 1973. Similarly, as was also pointed out the appellant II (opponent), two prior art patent documents on their own are insufficient to provide evidence that the common general knowledge would lead the skilled person to consider that the contested feature is an inaccurate technical statement.

Conversely there is no direct and unambiguous disclosure in the application as filed that the ink-jet head cannot comprise the "*jetting controller*" - nor do there appear to be any technical reasons that would render this impossible. In this respect, appellant I (patent proprietor) referred to figures 5 and 7 arguing that these figures disclose that the image ink jetting unit 80 cannot simultaneously be comprised in the ink-jet heads 32b to 32e. The board considers that this argument only applies to the particular context of the ink-jet heads 32b to 32e of the embodiments of figures 5 and 7. In addition, the abstract nature of the figures would not allow the skilled person to have derived therefrom a general teaching to the effect that the ink-jet head cannot comprise the "*jetting controller*".

Furthermore, the contested feature ("*said ink-jet head further comprising a jetting controller ...*") is clear: it merely specifies where the jetting controller is provided, namely that it is comprised in the ink-jet head. In this respect, the contested feature adds information which is not inconsistent with the contents of the application as filed (see point **1.2.1** above).

The contested feature thus has a clear technical meaning and does not constitute an "*inaccurate technical statement which is evidently inconsistent with the disclosure of the patent*".

- 1.2.3 It was argued on behalf of appellant I (patent proprietor), that in decision T 108/91 it had been decided that an inaccurate technical statement in a granted claim, which statement was evidently inconsistent with the totality of the disclosure of the patent and would contravene the requirements of Article 123(2) EPC, could be replaced with an accurate statement of the

technical features involved without infringing Article 123(3) EPC (see headnote and points 2.2. and 2.3 of the reasons).

The board cannot accept this argument, because as set out in the preceding point above, the contested feature does not constitute an "*inaccurate technical statement which is evidently inconsistent with the disclosure of the patent*". Furthermore, decision T 108/91 is older than the decision G 1/93 of the Enlarged Board of Appeal of the EPO (OJ EPO 1994, 541), which ruled on a similar point of law (see below).

1.2.4 In consequence, any claim including the above contested feature is contrary to the requirements of Article 123(2) EPC. For example, this is the case for independent claim 1 as granted (see the contested decision, point II.2.1).

1.3 The contested feature "*said ink-jet head further comprising a jetting controller ...*" is not included in any of the respective claims 1 of the main request or auxiliary requests 1 to 5.

1.3.1 Instead, in each of these claims, the text "*comprising a jetting controller*" has been respectively replaced by one of the expressions "*operated by a jetting controller*", "*using a jetting controller*", "*comprising the use of a jetting controller*". None of these expressions require that the ink-jet head comprises the jetting controller, so that the contested feature is no longer included in the subject-matter of the respective claim 1 of the main request or auxiliary requests 1 to 5.

Any ink-jet head not comprising the jetting controller and also having the other features of the claims is now

covered by the subject-matter of the main request and of auxiliary requests 1 to 5, whereas such ink-jet heads were excluded from the scope of the patent as granted. This is the situation that Article 123(3) EPC is intended to prevent.

- 1.3.2 According to decision G 1/93 (headnote 1 and point 13 of the reasons), if a European patent as granted contains subject-matter which extends beyond the content of the application as filed within the meaning of Article 123(2) EPC and which also limits the scope of protection conferred by the patent (for example, an inaccurate technical statement inconsistent with the totality of the disclosure of the patent), such a patent cannot be maintained in opposition proceedings unamended, because the ground for opposition under Article 100(c) EPC 1973 prejudices the maintenance of the patent. Nor can it be amended by deleting such limiting subject-matter from the claims, because such amendment would extend the protection conferred, which is prohibited by Article 123(3) EPC.

Such a patent can, therefore, only be maintained if there is a basis in the application as filed for replacing such subject-matter without violating Article 123(3) EPC, i.e. for replacing the unallowable technical feature limiting the scope of protection conferred by the patent as granted with another technical feature which restricts the scope of the granted patent.

Therefore, according to G 1/93, it is not allowable to replace a technical feature of a granted claim with another technical feature which causes the claim to extend to subject-matter which was not encompassed by the granted claim. In this respect decision T 108/91

has been superseded by G 1/93 and decision T 108/91, as referred to by appellant I (patent proprietor), cannot justify the allowability under Article 123(3) EPC of the main request or of any of auxiliary requests 1 to 5.

- 1.3.3 The conclusions of decision G 1/93 apply to the present case wherein the technical feature "*said ink-jet head further comprising a jetting controller ...*" limiting the scope of the granted patent and being unallowable under Article 123(2) EPC, was not replaced by a technical feature which restricts the scope of the granted patent (see point **1.3.1** above).

In consequence, the subject-matter of claim 1 respectively according to the main request and auxiliary requests 1 to 5 does not meet the requirements of Article 123(3) EPC.

- 1.4 Since the main request and auxiliary requests 1 to 5 are clearly not allowable, accepting these requests into the appeal procedure would be contrary to procedural efficiency. The board thus exercises its discretion under Article 13(1) RPBA to not admit the main request and auxiliary requests 1 to 5 into the procedure.

2. Admissibility of the auxiliary request 6

- 2.1 Auxiliary request 6 was filed during the oral proceedings before the board. Its admissibility is therefore subject to the discretion of the board under Article 13(1) RPBA.

2.2 Claim 1 according to auxiliary request 6 differs from claim 1 according to auxiliary request 5 only in that the expression

"with the proviso that the ground-color-layer ink jetting unit (70) and the image ink jetting unit (80) are not configured to simultaneously perform the first printing;"

is deleted.

This amendment thus only concerns the alleged disclaimer and has no influence on the feature that "*said ink-jet head [is] further operated by a jetting controller, ...*" which was already discussed above with respect to claim 1 of auxiliary request 5 in the context of Article 123(3) EPC.

In consequence, the above reasoning carries over identically to the subject-matter of claim 1 according to auxiliary request 6 which thus does not meet the requirements of Article 123(3) EPC.

2.3 Since auxiliary request 6 is clearly not allowable, accepting this request into the appeal procedure would be contrary to procedural efficiency. The board thus exercises its discretion under Article 13(1) RPBA to not admit the auxiliary request 6 into the procedure.

3. Conclusion

Since there are no more requests on file, the patent must be revoked.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The patent is revoked.
3. The appeal of appellant I (patent proprietor) is dismissed.

The Registrar:

The Chairman:



D. Meyfarth

M. Poock

Decision electronically authenticated