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**Datasheet for the decision  
of 2 April 2025**

**Case Number:** T 2636/22 - 3.2.01

**Application Number:** 08768369.4

**Publication Number:** 2170548

**IPC:** B23K26/08

**Language of the proceedings:** EN

**Title of invention:**

HIGH SPEED AND HIGH POWER LASER SCRIBING METHODS AND SYSTEMS

**Patent Proprietor:**

Technolines, LLC

**Opponent:**

Jeanologia, S.L.

**Headword:**

**Relevant legal provisions:**

EPC Art. 123(2), 111

RPBA 2020 Art. 11

**Keyword:**

Amendments - added subject-matter (no)

Remittal - (yes) - special reasons for remittal

**Decisions cited:**

**Catchword:**



**Beschwerdekammern**

**Boards of Appeal**

**Chambres de recours**

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Case Number: T 2636/22 - 3.2.01

**D E C I S I O N**  
**of Technical Board of Appeal 3.2.01**  
**of 2 April 2025**

**Appellant:** Technolines, LLC  
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**Decision under appeal:** **Decision of the Opposition Division of the  
European Patent Office posted on 20 October 2022  
revoking European patent No. 2170548 pursuant to  
Article 101(3) (b) EPC.**

**Composition of the Board:**

**Chairman** G. Pricolo  
**Members:** V. Vinci  
S. Fernández de Córdoba

## **Summary of Facts and Submissions**

- I. The appeal of the appellant (patent proprietor) lies against the decision of the Opposition Division revoking the European patent No. 2 170 548.

In its decision, the Opposition Division found that the ground for opposition raised by the opponent under Article 100(c) EPC was prejudicial to the maintenance of the patent as granted, and that the auxiliary requests 0A to 6A, 0B to 6B, 0C to 6C and 0D to 6D filed on 7 April 2022 did not comply with the requirements of Article 123(2) EPC. Furthermore, the Opposition Division admitted the auxiliary requests 29 and 30 filed during oral proceedings into the opposition proceedings, but found that they did not comply with the requirements of Articles 84, 123(2) and (3) EPC. The patent was thus revoked.

- II. With a communication in accordance with Article 15(1) RPBA dated 26 November 2024, the Board informed the parties of its preliminary assessment of the case.

Oral proceedings took place before the Board on 2 April 2025 by videoconference.

- III. The appellant (patent proprietor) requested that the decision under appeal be set aside and that the patent be maintained as granted (main request) or, in the alternative, according to one of the auxiliary requests 1 to 28 filed on 7 April 2022 as auxiliary requests 0A-6A, 0B-6B, 0C-6C and 0D-6D, or the auxiliary requests 29 and 30 filed during the first instance oral proceedings, or the auxiliary requests 31 to 37 filed with the statement of grounds of appeal.

The respondent (opponent) requested that the appeal be dismissed.

IV. Independent claim 1 as granted reads as follows:

*"A method of scribing a graphic on a work piece (42), comprising:*

*applying control information from a controller operable at a controller speed to a laser operated to produce a laser output (34); and*

*applying laser output (34) to the work piece (42) based on the control information to scribe a graphic into a surface of the work piece (42) such that material is removed from the surface of the work piece (42) to provide the surface with texture without burning through the work piece (42), and said applying comprises moving the laser output (34) relative to the work piece (42) at a speed in the range of greater than 10 m/s to 65 m/s and operating the laser output (34) with a power in the range of 500 W to 5,000 W, characterised in that the controller is operable at a controller speed in a range of 10,000 pixels per second to 50,000 pixels per second and having a power change width depending from the number of lines per inch, the controller Speed and the Laser Scan speed as mentioned in the following tables*

Table II

Specific Graphic at 32 lines/inch		
Power Change Width (Pixels)	Controller Speed (Pixels/second)	Laser Scan Speed (m/s)
4	10,000	31
4	20,000	62
3	10,000	23
3	20,000	46
2	10,000	15
2	20,000	30
1	20,000	14
1	40,000	28
1	50,000	35

Table III

Specific Graphic at 60 lines/inch		
Power Change Width (Pixels)	Controller Speed (Pixels/second)	Laser Scan Speed (m/s)
4	10,000	16
4	20,000	32
3	10,000	12
3	20,000	24
2	20,000	16
1	40,000	16
1	50,000	20

Independent claim 13 relates to a system comprising the combination of technical means required for carrying out the steps of independent claim 1.

## Reasons for the Decision

### MAIN REQUEST - PATENT AS GRANTED

#### Ground for Opposition pursuant to Article 100(c) EPC

1. Contrary to the findings of the Opposition Division, the ground for opposition pursuant to Article 100(c) EPC is not prejudicial to the maintenance of the patent as granted.
2. With their appeal, the appellant contested the conclusion of the Opposition Division that the amendments introduced in independent claims 1 and 13 as granted did not comply with the requirements of Article 123(2) EPC. The amendments under discussion are the following:

#### Deletion of lines in Tables II and III

- 2.1 In the contested decision, the Opposition Division followed the view of the respondent that the amendment consisting in the introduction in claim 1 as granted of Tables II and III from pages 21 and 22 of the originally filed description, however without the lines containing laser scan speeds below 10 m/s infringed Article 123(2) EPC. The Opposition Division concurred with the respondent that according to paragraph [0025] Tables II and III did not disclose single exemplary combinations of values of the power width change, controller speed, and laser scan speed applicable to the claimed laser scribing method, but rather represented in their entirety the interdependence of these parameters as originally disclosed. In this respect, it was pointed out that this interdependence resulted from all the lines of the respective table. In

the view of the Opposition Division and the respondent, this originally disclosed interdependence was altered in claims 1 and 13 as granted because of the omission in Tables II and III of the lines relating to laser scan speed below 10 m/s which in combination with the remaining lines defined this interdependence. The respondent also observed that the application as filed nowhere suggested that the interdependence of the different working parameters of the claimed method and system was or could be expressed by only some of the lines of Tables II and III, nor indicated any alternative definition of said interdependence other than what was shown in these tables. The respondent argued that the person skilled in the art knew only two possible way to express an interdependence between interrelated variables, namely either by a mathematical formula or by presenting this interdependence in a numerical tabular form, the second possibility being that adopted in the application as filed to express the interdependence between power change width, controller speed and laser scan speed according to the contested patent. By omitting the lines containing laser scan speeds below 10 m/s in the tables introduced in claims 1 and 13 as granted from the description, the originally disclosed tabular interdependence was inevitably alternated, this alteration resulting in undisclosed information. The respondent further argued that since contrary to the allegation of the appellant, the values of the power change width, control speed and laser scan speed indicated in the original Tables II and III did not satisfy a mathematical formula, no lines could be considered redundant when expressing their originally disclosed interdependence, whereby the deletion of the lines containing a controller speed below 10 m/s infringed Article 123(2) EPC. In support of this allegation, the respondent presented an

exemplary calculation based on the parameters indicated in Tables II and III of the percentage variation of the laser scanning speed at constant controller speed of 10.000 pixels/second when the power change width was reduced by 50%, i.e. from 4 to 2 and from 2 to 1 pixel. This calculation allegedly showed that the reduction in percentage of the laser scan speed calculated for a 50% reduction of power change width at 10.000 Pixels/second controller speed according to the deleted lines in Table II deviated from that accordingly obtained from that resulting from the non-deleted lines. Furthermore, the percentage reduction analogously obtained on the basis of the parameters in Table III was different from the percentage reduction calculated for Table II. From all the above, the respondent concluded that - contrary to the assumption of the appellant and in accordance with the assessment of the Opposition Division - the interdependence of the parameters in the lines omitted from the tables introduced in independent claims 1 and 13 as granted did not follow any common mathematical formula also expressing the interdependence of the parameters of the other lines of the tables, this circumstance proving that the disputed deletion altered the originally disclosed interdependence which was determined by the entirety of the information contained in the original Table II and III. Regarding the argument of the appellant that since the contested patent clearly stated that only laser scan speeds above 10 m/s were contemplated by the method and system according to the contested patent, the lines containing laser scan speeds below 10 m/s could be disregarded and hence deleted without infringing Article 123(2) EPC, the respondent pointed out that this argument contradicted some assertions of the appellant in their statement of the grounds of appeal and was also inconsistent with the teachings of paragraph [0014] and

claims 10 and 19 as filed read in combination with the independent claims. Regarding the further argument of the appellant that deletion of the lines containing laser scan speeds below 10 m/s was permitted because the tables were presented in a section of the application introduced by the title "*EXAMPLES*", the respondent replied that Tables II and III were referred to for the first time in paragraph [0025] of the originally filed description, hence before the section labelled "*EXAMPLES*". Finally the respondent argued that the disputed deletion of selected lines from the tables introduced in claims 1 and 13 as granted resulted in an undisclosed disclaimer clearly infringing Article 123(2) EPC.

2.1.1 The Board is not convinced by the arguments put forward by the Opposition Division in the contested decision and the respondent and follows the arguments of the appellant:

As convincingly put forward in the statement of grounds of appeal, the patent is explicitly and specifically directed to a laser method and system for scribing a graphic on a workpiece using high power, i.e. greater than 500 watts, and high laser scan speed, i.e. greater than 10 m/s. These purposive operational limitations which were recited also in independent claims 1 and 24 as filed are confirmed by several passages of the originally filed description, i.e. paragraphs [0011], [0012], [0019], [0022], [0036] and [0038]. The skilled reader will not disregard this relevant information clearly and consistently supported by the whole application as originally filed. Therefore, they will have no doubt that the method and the system according to the contested patent are meant to be carried out and operate only at laser scan speeds above 10 m/s. In the

Board's view, the general statement in paragraph [0014] of the description referred to by the respondent cannot lead the person skilled in the art to disregard this core teaching which is consistently emphasised throughout the whole application as filed including the independent claims. The same applies to the statement in the last sentence of paragraph [0025] also cited by the respondent and associating the term "*interdependence*" with Tables II and III. The person skilled in the art - in the light of the whole originally filed application - will not read in this statement the expression of an interdependence of the working parameters derivable from the entirety of the content of the tables, but rather as an indication that the tables merely provide specific sets of workable parameters each of which can be successfully applied when carrying out and operating the claimed method and system respectively. In view of the above and by applying the relevant principle of the "*gold standard*" to the assessment of compliance of an amendment with the requirements of Article 123(2) EPC, the Board concludes that the person skilled in the art reading the original application in the light of common general knowledge realizes that the set of parameters presented in each of the lines of original tables II and III involving a laser scan speed below 10 m/s are not contemplated by the invention and therefore can be omitted. The deletion of these lines does not thus result in an alleged alteration of an originally disclosed interdependence resulting from all the lines of the tables, but rather in the allowable omission of specific combinations of parameters relating to laser control speed below 10 m/s parameters clearly and unambiguously not contemplated by the invention. Furthermore, the Board cannot see why the fact alleged by the respondent that the term "*interdependence*"

associated to Tables II and III appears in the originally filed description also before the section labelled "*EXAMPLES*" introducing tables II and III can lead the person skilled in the art to a different conclusion. That Tables II and III merely contain exemplary specific sets of workable parameters is supported by the following paragraph [0046] reciting "*The foregoing detailed description of the certain exemplary embodiments ....*" (emphasis added). Regarding the inextricable technical link of the deleted lines with the information contained in the remaining lines and with the operational characteristics of the controller alleged by the respondent, the Board is of the opinion that the person skilled in the art reading the application as filed as a whole realizes that the only limitation required is that the controller must be able to provide a scan speeds at least greater than 10 m/s when using high power greater than 500 watts. Therefore, also in respect of the characteristics of the controller, no undisclosed information is added. Finally the disputed omissions in Tables II and III cannot be seen as disclaimers but - for the reasons presented above - only as the deletions of sets of operational parameters which however are not in line with the teaching of the invention.

Disclosure of the feature that:

*"the controller is operable at a controller speed in a range of 10,000 pixels per second to 50,000 pixels per second"*

- 2.2 In the decision under appeal the Opposition Division came to the conclusion that the controller speed range introduced in claims 1 and 13 as granted was directly

and unambiguously derivable from the content of the original Tables II and III. This conclusion is contested by the respondent with their reply. They observed that the claimed range of 10.000 to 50.000 Pixels/second was nowhere explicitly mentioned in the application as originally filed. Rather, only four discrete values for the controller speed, namely 10.000, 20.000, 40.000 and 50.000 Pixels/second were derivable from Tables II and III. The respondent also argued that the fact alleged by the appellant that Tables II and III explicitly disclosed the upper and lower end of the claimed range and two values there between did not directly and unambiguously result in the disclosure of the entire range. The respondent pointed out that it had not been demonstrated by the appellant that any laser controller available on the market, in particular that indicated on page 11 of the original WO publication, was also inherently able to operate continuously at any speed below the maximum controller speed presented Table II and III, i.e. at any speed below 50.000 Pixels/second.

2.2.1 The Board follows the arguments of the appellant:

Firstly, the Board is convinced that the hardware of a laser controller which can process 50.000 Pixel/second (highest speed in Tables II and III) can also operate at any lower processing speed according to the drivers adopted. This is confirmed by the statement in paragraph [0042] of the application as filed teaching that for example Pentium © class computers running Windows © OS can be used to carry out the method. It is well known that the Graphic Hardware of these machines can operate not only at the maximal possible resolution allowed by the hardware but also at lower resolutions which can be set in the drivers. Furthermore, the Board

concur with the appellant that the range 10.000 to 50.000 Pixels/second introduced in claims 1 and 13 as granted is "*de facto*" limited by the introduction of Tables II and III which impose only four modes of operation at 10.000, 20.000, 40.000 and 50.000 Pixels/second according to the original disclosure. Therefore, the Board concludes that the claimed range read in combination with the claimed specific operation modes imposed by Tables II and III does not introduce any undisclosed information.

3. For the reasons above the decision of the opposition division dismissing the main request under Article 100(c) in association with Article 123(2) EPC cannot be confirmed.

**Remittal to the department of first instance**

4. The Board considers appropriate to remit the case to the department of first instance for further prosecution pursuant to Article 111 EPC, special reasons within the meaning of Article 11 RPBA being that the opposition division did not assess the further grounds for opposition raised by the respondent under Articles 100(a) and 100(b) EPC. Both parties agreed with the remittal of the case.

## Order

### For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the opposition division for further prosecution.

The Registrar:

The Chairman:



K. Boelicke

G. Pricolo

Decision electronically authenticated