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Datasheet for the decision of 3 March 2026

Case Number: T 1428/24 - 3.2.01

Application Number: 18821772.3

Publication Number: 3706951

IPC: B23K26/361, B23K101/00, B23K26/03, B23K26/082

Language of the proceedings: EN

Title of invention:
LASER MARKING THROUGH THE LENS OF AN IMAGE SCANNING SYSTEM

Patent Proprietor:
Alltec Angewandte Laserlicht Technologie GmbH

Opponent:
Dummett Copp LLP

Headword:

Relevant legal provisions:
EPC Art. 54, 56, 123(2)

Keyword:
Novelty - main request (yes)
Inventive step - main request (yes)
Amendments - extension beyond the content of the application as filed (no)

Decisions cited:

Catchword:

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European Patent Office
Office européen des brevets

Beschwerdekammern

Boards of Appeal

Chambres de recours

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Case Number: T 1428/24 - 3.2.01

D E C I S I O N
of Technical Board of Appeal 3.2.01
of 3 March 2026

Appellant: (Opponent)	Dummett Copp LLP 25 The Square Martlesham Heath Ipswich IP5 3SL (GB)
Representative:	Nordmeyer, Philipp Werner Maucher Jenkins Patent- und Rechtsanwälte Liebigstraße 39 80538 München (DE)
Respondent: (Patent Proprietor)	Alltec Angewandte Laserlicht Technologie GmbH An der Trave 27-31 23923 Selmsdorf (DE)
Representative:	Müller-Boré & Partner Patentanwälte PartG mbB Friedenheimer Brücke 21 80639 München (DE)
Decision under appeal:	**Decision of the Opposition Division of the European Patent Office posted/electronically transmitted on 10 October 2024 rejecting the opposition filed against European patent No. 3706951 pursuant to Article 101(2) EPC.**

Composition of the Board:

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

Summary of Facts and Submissions

I. The appeal was filed by the appellant (opponent) against the decision of the Opposition Division rejecting the opposition and maintaining the European patent No. EP 3 706 951 as granted.

In its decision, the Opposition Division found that the grounds for opposition raised by the opponent under Article 100(a) in conjunction with Articles 54 and 56 EPC and Article 100(c) in conjunction with Article 123(2) EPC were not prejudicial to the maintenance of the patent as granted. Novelty and inventive step of the subject-matter of independents claims 1 and 12 were positively assessed in view of the following prior-art documents:

D1: DE 10 2014 205 142 A1
D2: *"Welding joint detection by calibrated mosaicking with laser scanner systems"* by Braunreuther et al.
D3: US 2010/0017012 A1

II. With a communication in accordance with Article 15(1) RPBA dated 20 October 2025, the Board informed the parties of its preliminary assessment of the case.

Oral proceedings took place before the Board on 3 March 2026 by videoconference.

III. The appellant (opponent) requested that the decision under appeal be set aside and the patent be revoked.

The respondent (patent proprietor) requested that the appeal be dismissed (main request) or, in the alternative, that the patent be maintained in amended

form according to the auxiliary request 0 filed with the reply to the statement of grounds of appeal of the appellant (opponent), or according to one of the auxiliary requests 1 to 9 filed with the letter dated 27 February 2023, or according to one of the auxiliary requests 0.1, 0.2, 6.1, 8.1 or 9.1 filed with the letter of 16 July 2024.

IV. Independent claim 1 of the patent as granted reads as follows (labelling according to the contested decision):

1. *"A laser marking system (100, 100') comprising:*

1.1 *a laser (140);*

1.2 *an image capture device (162);*

1.3 *marking head (120) including electromagnetic energy deflectors (124A, 124B, 170) and at least one lens (136), a beam path of the laser (140) and a beam path of the image capture device (162) both passing through the at least one lens (136) and the electromagnetic energy deflectors (124A, 124B, 170); and*

1.4 *a computer system (150),*

1.5 *characterized in that the computer system is operable to perform a method comprising:*

adjusting the electromagnetic energy deflectors (124A, 124B, 170) to direct the beam path of the image capture device (162) to multiple different locations within a marking field (310) of the laser marking system (100, 100');

1.6 *capturing image tiles (320) at each of the multiple different locations with the image capture device (162);*

1.7 *stitching the image tiles (320) to produce a composite image (325) of the marking field (310);*

1.8 *identifying a location and orientation of an image of a workpiece (315) within the composite image (325) of the marking field (310);*

1.9 *determining a location and orientation of a mark to be applied to the workpiece (X, 315) based on the location and orientation of the image of the workpiece within the composite image (325) of the marking field (310); and*

1.10 *applying the mark to the workpiece (X, 315) with the laser."*

Independent claim 10 as granted relates to a method of laser marking a workpiece with a laser marking system and comprises the steps 1.5 to 1.10 carried out by the computer system of the laser marking system of claim 1.

Reasons for the Decision

MAIN REQUEST - PATENT AS GRANTED

Ground for opposition under Article 100(c) in conjunction with Article 123(2) EPC

1. The ground for opposition under Article 100(c) in conjunction with Article 123(2) EPC does not prejudice the maintenance of the patent as granted, as correctly found by the Opposition Division.

1.1 With their statement of grounds of appeal the appellant contested this finding of the Opposition Division.

1.2 The parties at the oral proceedings referred in respect to the question of compliance with the requirements of Article 123(2) EPC to the arguments provided in writing and did not make any further submission. The Board has thus no reason to deviate from its preliminary assessment of this issue as set out in the communication according to Article 15(1) RPBA which is herewith confirmed and reads as follow:

1.2.1 With their statement of grounds of appeal, the appellant maintained that dependent claims 4 to 9 as granted claim a multiple dependency which was not originally disclosed. In their opinion, the passages of the description cited by the Opposition Division and the respondent in support of the allowability of the amendments disclosed several distinct and non-related embodiments and not their combination now resulting from the amended dependencies.

1.2.2 The Board does not agree and follows the arguments of the Opposition Division and the respondent that the use

in the cited passages on page 2, lines 2-19 of the originally filed description of the wording *"The computer system may . . ."* and *"In some embodiments . . .. "* provides the person skilled in the art with a direct and unambiguous hint that the described preferred embodiments can be combined with each other. Furthermore, as argued by the respondent, a technical incompatibly of these embodiments or hierarchy speaking against the introduced amended multiple dependencies is not apparent.

Ground for opposition under Article 100(a) in conjunction with Article 54 EPC

2. The ground for opposition under Article 100(a) in conjunction with Article 54 EPC does not prejudice the maintenance of the patent as granted, as correctly found by the Opposition Division.

2.1 With their statement of grounds of appeal, the appellant contested this finding.

Novelty over documents D1 and D2

2.2 In its decision, the Opposition Division held that a weld line joining an edge of a workpiece to another workpiece would not be understood by the person skilled in the art as a *"marking"* within the meaning of claim 1 and in the technical context of the contexted patent. Consequently, it took the view that D1, that related to a laser welding system, did not to disclose a laser marking system according to feature 1 of independent claim 1. The Opposition Division further held that D1 did not directly and unambiguously disclose features 1.9 and 1.10 of independent claim 1. Regarding D2, the Opposition Division held that this prior art document

related to a marking system which however did not disclose features 1.8 to 1.10 of claim 1 as granted.

2.3 With their statement of grounds of appeal, the appellant contested the narrow interpretation of the Opposition Division of the term *"mark"* which in their opinion led to the wrong conclusion that D1 did not disclose a laser marking system according to feature 1. of claim 1 as granted. Furthermore, they held that D1 and D2 also disclosed features 1.9 and 1.10 and features 1.8 to 1.10 of claim 1 as granted respectively.

2.4 With their reply to the statement of grounds of appeal of the opponent, the respondent conversely held that, besides features 1., 1.9 and 1.10 and contrary to the assessment of the Opposition Division, document D1 also did not directly and unambiguously disclose feature 1.8 of claim 1 as granted requiring the step of identifying a location and orientation of an image of a workpiece within the composite image of the marking field of the claimed marking device.

2.5 The Board considers decisive for the assessment of patentability of the subject-matter of claim 1 whether documents D1 and D2 disclose its feature 1.8 or not.

2.5.1 In this respect, the appellant submitted that D1 implicitly disclosed feature 1.8 because an image of a workpiece captured by a camera inherently contained both position and orientation information. They argued that the imaging setup shown in Figure 2 of D1 including the acquisition area (6), the object carrier (4) and the workpieces provided a complete spatial context in which both position and orientation were directly available and acquired by the image capture

device of this known laser marking system. The appellant further relied on paragraph [0010] and claim 12 of D1, arguing that the image analysis mentioned therein necessarily involved determining not only the position, but also the orientation of the workpiece. Moreover, they referred to claim 8 and paragraph [0042] indicating that the same imaging system was used for both imaging and controlling the laser during welding, which was said to imply that orientation information must also be derived. Since in view of paragraph [0019] of the contested patent welding lines had to be considered marks within of the meaning of the contested patent, features 1., 1.9 and 1.10 were also disclosed in document D1. The same reasoning was applied to document D2. In particular, the appellant referred to Figure 19 and to the paragraph labelled "*Practical example*" on page 21 of this prior art document and argued that the generation of a welding path from captured image data via a list of points extracted from a composite image necessarily implied the determination of both position and orientation of the weld line according to feature 1.8 of claim 1. On this basis, the appellant concluded that - contrary to the findings of the Opposition Division - both D1 and D2 directly and unambiguously disclose feature 1.8 in combination with the remaining feature of claim 1 of the patent as granted, thereby being prejudicial to novelty.

2.5.2 The respondent put forward that D1 related to a welding system carrying out a welding process in which the position of workpieces was certainly determined, but not their orientation within a composite image. They pointed out that the passages of D1 cited by the appellant, in particular paragraph [0010] and claim 12, merely disclosed the determination of the position and possibly the geometric shape of the workpieces ("...

Position und oder geometrische Formgebung ..."), without any indication that also their orientation was detected. The respondent also argued that a skilled reader could promptly realise that determining the orientation of the workpieces was not technically necessary for the welding process disclosed in D1, since the weld line could be identified, for example, by edge detection techniques based solely on positional information. The direction/orientation of the welding line was in their opinion irrelevant for the process of D1. The respondent emphasised that the undisclosed feature 1.8 should not be considered in isolation, but in conjunction with feature 1.9 requiring the step of determining the location and orientation of a mark to be applied based on the location and orientation of the image of the workpiece within the composite image of the marking field as obtained by the previous step of feature 1.8. They thus submitted that also feature 1.9 was not disclosed in D1. The same reasoning and conclusions were applied to counter the novelty attack based on document D2 which, like D1, concerned the correct positioning of welding lines.

2.6 The arguments of the appellant are not convincing for the following reasons:

2.6.1 In the Board's view, the appellant's central submission that orientation is inherently disclosed whenever a workpiece is imaged is not sufficient to establish a direct and unambiguous disclosure of feature 1.8 in document D1. Even if an image *per se* may contain information from which orientation could, in principle, be derived, this does not mean that such orientation is actually determined in the way required by claim 1. As regard to Figure 2 of D1, the mere fact that an image comprises a workpiece within an acquisition area and an

object carrier does not imply that the orientation of the workpiece is explicitly or implicitly determined. In fact, this Figure and the corresponding description describe an imaging setup, but do not imply or mention any processing step relating to orientation extraction. Paragraph [0010] and claim 12 of D1, relied upon by the appellant, generally refers - as pointed out by the respondent - to image analysis (*"Bildanalyse"*) for determining the position and possibly the geometric configuration of the objects. However, for the same reasons given above, it is not possible to directly and unambiguously derive a determination of orientation as a separate parameter within the meaning of feature 1.8. The same applies to claim 8 and paragraph [0042] of D1. These passages describe the use of image data for controlling the laser scanner during welding, but do not specify which features of the image are extracted and evaluated for this purpose. In particular, they do not disclose that the orientation of the workpieces, or of their images within a composite image, is determined. The fact that a welding path is executed using a laser beam does not necessarily imply that orientation information has been extracted from the image. Last but not least, the Board concurs with the respondent that a determination of the orientation of the workpieces is not technically necessary for the welding process disclosed in D1 because the weld line could be indeed identified, for example, by edge detection techniques based solely on positional information. This fact speaks against the assumption of the appellant that a determination of the orientation of the workpiece should be considered inherent in the welding process of D1. Therefore, contrary to the findings of the Opposition Division feature 1.8 is not directly and unambiguously disclosed in document D1.

2.6.2 The same conclusions apply for the same reasons to document D2. The generation of a welding path from a list of points extracted from image data described therein may define a processing result in terms of a trajectory, but does not directly and unambiguously disclose the determination of the orientation of the workpieces within a composite image, as required by feature 1.8 of claim 1 as granted. On the contrary, according to D2, the position and orientation of the seam to be welded between the steel plate and the logo are determined. Analogously to the welding process of D1 and as put forward by the Opposition Division and the respondent, the orientation of the workpiece within the global image is irrelevant for the welding task of D2 and therefore cannot be considered inherently disclosed as alleged by the appellant.

2.6.3 Finally, as correctly noted by the respondent, also feature 1.9 which requires the determination of a location and orientation of a mark to be applied to the workpiece based on the location and orientation of the image of the workpiece as determined according to feature 1.8, is not directly and unambiguously disclosed in neither of D1 and D2 the content of which is thus not prejudicial to the novelty of claim 1 of the patent as granted as correctly found by the Opposition Division.

2.6.4 In view of the above, the question of whether a welding line joining an edge of a workpiece to another workpiece according to D1 would be understood by the person skilled in the art as a *"marking"* within the meaning of claim 1 can remain unanswered.

Ground for opposition under Article 100(a) in

conjunction with Article 56 EPC

3. The ground for opposition under Article 100(a) in conjunction with Article 56 EPC does not prejudice the maintenance of the patent as granted.

3.1 In its decision, the Opposition Division held that document D3 did not disclose features 1.5 to 1.8 of claim 1 as granted and that these distinguishing features rendered the claimed subject-matter non-obvious in view of D3 in combination with D1 or D2.

3.2 With their statement of grounds of appeal, the appellant contested these findings. They submitted that feature 1.5 was disclosed in D3 by the use in the laser marking system described therein of a scanner head/ mirror directing the laser beam onto the workpiece. The appellant further argued that the distinguishing features 1.6 to 1.8 solved the technical problem of improving the flexibility of the system of D3 having regard in particular to the possibility to process workpieces larger than the viewing area covered by the camera. The appellant drew the attention to paragraphs [0021] and [0022] of D3 allegedly mentioning the need to implement the known laser marking system to permit detection of larger workpieces. They argued that with this purpose in mind, the person skilled in the art would turn to document D2 or D1 relating to the same technical field of D3 which suggested to apply features 1.6 and to 1.8 in order to allow processing of workpieces larger than the detection filed of the image capturing means (reference was made to D2, right column, 4th sentence). In view of the above, the appellant concluded that the person skilled in the art would be motivated to introduce the teaching of D2 or D1 in the system of D3 thereby arriving without

inventive step to the subject-matter of claim 1 as granted.

3.3 The Board does not find these arguments convincing:

The reasoning of the appellant relies on the assumption that feature 1.8 and 1.9 are also directly and unambiguously disclosed in documents D1 and D2. Since as explained under previous point 2.6 to 2.6.3 this assumption cannot be shared by the Board, the reasoning of the appellant is void.

3.4 The same arguments and conclusions regarding novelty and inventive step apply mutatis mutandis to the subject-matter of method claim 10 as granted which contains the same method steps performed by the computer system of of the laser marking system of claim 1.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

D. Grundner G. Pricolo

Decision electronically authenticated