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**Datasheet for the decision  
of 29 May 2018**

**Case Number:** T 0323/15 - 3.2.08

**Application Number:** 02714862.6

**Publication Number:** 1364132

**IPC:** F16B31/02

**Language of the proceedings:** EN

**Title of invention:**

LOAD INDICATING MEMBER WITH IDENTIFYING MARK

**Patent Proprietor:**

Innovation Plus, L.L.C.

**Opponent:**

AMG Intellifast GmbH

**Headword:**

**Relevant legal provisions:**

EPC Art. 56, 111(1)

**Keyword:**

Inventive step - main request (no)

Inventive step - auxiliary request 1 (yes)

**Decisions cited:**

**Catchword:**



**Beschwerdekammern**

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Case Number: T 0323/15 - 3.2.08

**D E C I S I O N**  
**of Technical Board of Appeal 3.2.08**  
**of 29 May 2018**

**Appellant:** Innovation Plus, L.L.C.  
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**Decision under appeal:** **Decision of the Opposition Division of the  
European Patent Office posted on 5 December 2014  
revoking European patent No. 1364132 pursuant to  
Article 101(3) (b) EPC**

**Composition of the Board:**

**Chairwoman** P. Acton  
**Members:** A. Björklund  
P. Schmitz

## **Summary of Facts and Submissions**

- I. With its decision posted on 5 December 2014 the opposition division revoked European patent No. 1 364 132 because it did not involve an inventive step.
- II. The appellant (patent proprietor) filed an appeal against this decision, in due form and within the prescribed time limits.
- III. The appellant requested that the decision under appeal be set aside and that the patent be maintained on the basis of the main request filed with the statement setting out its grounds of appeal or one of auxiliary requests 1 and 2 filed by letter of 9 November 2017, and that document D19 not be admitted into the proceedings.

The respondent (opponent) requested that the appeal be dismissed and that the auxiliary requests not be admitted into the proceedings.

- IV. Oral proceedings were held before the Board on 29 May 2018.
- V. The following documents are referred to in this decision:

D5: US 5 220 839 A

D6: DE 199 17 222 A1

D17: Article "Die Ultrafast-Technologie", by Bernd Vohl, published on 1 May 1999

D19: WO 89/07302

- VI. The independent claims relevant for the decision read as follows:

(a) Main request

Claim 1:

"A load indicating member (10) comprising a fastener and an ultrasonic transducer (16) on the fastener for making ultrasonic load measurements in the fastener, characterized in that the load indicating member further comprises information storage means (12;32) on the ultrasonic transducer, the information storage means including markings corresponding to data associated with the fastener."

(b) Auxiliary request 1

Claim 1 of auxiliary request 1 differs from claim 1 of the main request in that the following features have been added:

", wherein said information storage means are optical storage media and said optical storage media are a barcode, wherein the optical storage media is a black-oxide coated surface of a metallic foil including portions of the black-oxide coating which are selectively removed by laser ablation to form the barcode."

VII. The appellant argued essentially as follows:

(a) Main request - inventive step

The subject-matter of claim 1 differed from the load indicating member of D17 in the features of the characterising portion. Having information storage means with data associated with the fastener on the

fastener solved the problem of providing a load indicating member which allowed more reliable measurement, since there was a secure link between the information and the fastener. Positioning the information storage means on the ultrasonic transducer made it possible to simultaneously read the data and carry out the load measurement, which further increased the reliability of the measurements.

D6 disclosed a screw with an information storage means which could be positioned on the screw head, for example in a recess. The person skilled in the art would however not position such an information storage means on the very thin transducer of D17, since this would negatively impact the resonance and the mechanical and electrical couplings of the ultrasonic transducer.

Consequently, the person skilled in the art would not apply the teaching of D6 to the load indicating member of D17, and the subject-matter of claim 1 of the main request involved an inventive step.

(b) Auxiliary request 1

(i) Admissibility of the auxiliary requests

The auxiliary requests had been filed in order to overcome the objections as to the validity of the priority, and possibly those as to novelty and inventive step in view of another group of prior-art documents which had been raised in the respondent's submission of 15 September 2016. They had been filed as early as possible in the appeal proceedings and should therefore be admitted into the proceedings.

(ii) Admissibility of D19

The document had been filed late, and its technical content was irrelevant to claim 1 of the auxiliary requests. Since the added features of the auxiliary requests came from claims of the granted patent, this document should already have been filed with the notice of opposition. D19 should therefore not be admitted into the proceedings.

(iii) Inventive step

The additional features of claim 1 of auxiliary request 1 solved the technical problem of providing a load indicating member with a durable high-contrast mark easily read with conventional optical readers.

Document D19 did not disclose a bar code according to claim 1 but rather a method where metal was exposed to laser radiation such that it became molten and vapours formed, said vapours combining with the molten metal to form oxides darker than the unexposed metal. The resulting product was different from a black-oxide coating which was formed chemically and then partly removed by laser evaporation to form the markings. The person skilled in the art would therefore not arrive at the subject-matter of claim 1 of auxiliary request 1 by combining the teachings of D17, D6 and D19.

Furthermore, the method disclosed in D19 would not be suitable for metallic foils since they would be destroyed by the melting, and therefore this document would not even be considered by the person skilled in the art.

VIII. The respondent (opponent) argued essentially as follows:

(a) Main request - inventive step

The subject-matter of claim 1 differed from the load indicating member of D17 in the features of the characterising portion.

Claim 3 stipulated that the ultrasonic transducer which (according to claim 1) was "on the fastener" could be temporarily attached to the fastener. Claim 1 further envisaged "information storage means on the ultrasonic transducer". It followed by analogy from the use of the same preposition that the information storage means too could be temporarily attached to the transducer.

Since the information storage means was not permanently attached to the fastener, the claimed load indicating member did not solve the problem formulated by the appellant. Positioning the information storage means on the ultrasonic transducer was an arbitrary choice, did not solve any technical problem and could therefore not involve any inventive activity.

(b) Auxiliary request 1

(i) Admissibility of the request

The appellant had refrained from filing any further requests in the opposition proceedings, even though revocation was foreseeable, and had also not done so with its grounds of appeal. The late-filed request should therefore not be admitted into the appeal proceedings.



(ii) Admissibility of D19

Document D19 had been mentioned as early as possible in the appeal proceedings. It had become relevant because of the auxiliary requests, which were also late-filed. The document should therefore be admitted into the proceedings.

(iii) Inventive step

The subject-matter of claim 1 of the main request did not involve an inventive step in view of the disclosures of D17 and D6. Furthermore, D6 already disclosed information storage means in the form of a bar code.

The additional features defining the specific bar code solved the objective technical problem of providing an alternative bar code. The solution to this problem was obvious in view of D19, which disclosed a method of forming black-oxide bar code markings on metal by using a laser. Since the laser was only applied locally where the mark was formed, the person skilled in the art was not discouraged from applying the method to metallic foils. That the bar code according to claim 1 had the reverse contrast was a design choice which as such did not involve an inventive step. Consequently, the subject-matter of claim 1 of auxiliary request 1 did not involve an inventive step.

## **Reasons for the Decision**

1. Main request - inventive step

The load indicating member of D17 is considered to represent the closest prior art. It is common ground that the subject-matter of claim 1 differs therefrom in the features of the characterising portion.

The appellant alleges that these features solve the problems of providing a load indicating member that allows more reliable measurement and of simultaneously reading the data associated with the fastener and carrying out the load measurement.

Claim 1 requires "an ultrasonic transducer on the fastener" and "information storage means on the ultrasonic transducer". The meaning of the preposition "on" has to be understood in the light of the whole patent and particularly in the light of the claims. Claim 3 as granted stipulates that the "ultrasonic transducer is temporarily attached to the fastener". Hence, the first "on" in claim 1 should not be interpreted as implying a permanent attachment. By analogy, the second "on" in claim 1 should be interpreted in the same way.

Due to the potentially temporary attachment of the information storage means to the ultrasonic transducer and to the fastener, a reliable connection between the information storage means and the fastener is not guaranteed. Hence the problem formulated by the appellant - which envisages more reliable measurements due to the reliable link between the data and the fastener - is not solved.

Since no technical problem is solved, positioning an information storage means with data associated with the fastener on the ultrasonic transducer is an arbitrary choice which cannot justify an inventive activity.

Therefore, the subject-matter of claim 1 of the main request does not involve an inventive step.

2. Admissibility of auxiliary request 1

Auxiliary request 1 was filed in response to the objection to the validity of the claimed priority of the main request, and possible objections concerning novelty and inventive step in view of further documents which were raised in the respondent's second submission in the appeal proceedings.

The request is essentially based upon combinations of claims of the granted patent, and therefore cannot have taken the respondent by surprise. Furthermore, it was filed before the summons to oral proceedings, giving the respondent sufficient time to prepare its case.

Auxiliary request 1 is therefore admitted into the proceedings.

3. Admissibility of late-filed document D19

Document D19 was mentioned in the respondent's reply to the appeal, and thus as early as possible in the appeal proceedings. It concerns a method of marking a metal by formation of oxides using a laser which appears relevant for assessing inventive step and is seen as a document merely reinforcing the respondent's line of argumentation. It is therefore admitted into the proceedings.

4. Auxiliary request 1 - inventive step

The additional features of claim 1 of auxiliary request 1 define a specific information storage means in the form of a bar code formed by selective removal of portions of a black-oxide coated surface of a metallic foil.

The problem solved by this feature can be considered to be the provision of an alternative bar code.

D19 does indeed disclose a method for providing a bar code on a metallic object using a laser. This method foresees the exposure to laser radiation of a non-oxidised metallic surface covered by a transmissive layer. Applying laser radiation melts the metal and generates metal vapours in the exposed region. The vapours are trapped under the transmissive layer and recombine with the molten metal, forming unspecified oxides which appear much darker than the surrounding unexposed metal (see page 6, lines 2 to 11).

The claimed information storage means differs from those obtained by the method of D19 firstly in that it has a reverse contrast.

Moreover, the claimed optical storage means differs from those of D19 in that it is a metallic foil coated with black oxide. Black oxide is a specific metallic oxide formed by dipping the metal in chemical baths which convert the surface to the desired oxide with specific characteristics.

Since the opponent was unable to prove that the unnamed oxides formed by the method of D19 were the same as black oxides, the skilled person would not arrive at the subject-matter of claim 1 of auxiliary request 1

even if he were to apply the teaching of D19 to the bar code of D6.

Therefore, the subject-matter of claim 1 of auxiliary request 1 involves an inventive step.

5. Remittal to the opposition division

Further objections under Article 100(a), (b) and (c) EPC raised by the opponent in the notice of opposition have not yet been addressed by the opposition division. Thus, in order to allow the case to be examined at two levels of jurisdiction, the Board finds it appropriate to remit the case to the opposition division for continuation of the proceedings on the basis of the pending auxiliary request 1 (Article 111(1) EPC).

**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 Chairwoman:



C. Moser

P. Acton

Decision electronically authenticated