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**Datasheet for the decision  
of 15 October 2013**

**Case Number:** T 0417/10 - 3.4.02

**Application Number:** 05008908.5

**Publication Number:** 1659363

**IPC:** G01B5/00

**Language of the proceedings:** EN

**Title of invention:**  
Probe Supporting Mechanism

**Patent Proprietor:**  
TOKYO SEIMITSU CO., LTD.

**Opponent:**  
Mahr GmbH

**Headword:**

**Relevant legal provisions:**  
EPC Art. 84

**Keyword:**  
Claims - clarity in opposition appeal proceedings

**Decisions cited:**  
G 0009/91

**Catchword:**



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Case Number: T 0417/10 - 3.4.02

**D E C I S I O N**  
**of Technical Board of Appeal 3.4.02**  
**of 15 October 2013**

**Appellant:** TOKYO SEIMITSU CO., LTD.  
(Patent Proprietor) 7-1, Shimorenjaku 9-chome  
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**Respondent:** Mahr GmbH  
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**Representative:** Rüger, Barthelt & Abel  
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**Decision under appeal:** **Decision of the Opposition Division of the  
European Patent Office posted on 15 December  
2009 revoking European patent No. 1659363  
pursuant to Article 101(3) (b) EPC.**

**Composition of the Board:**

**Chairman:** A. Klein  
**Members:** F. Maaswinkel  
D. Rogers

## **Summary of Facts and Submissions**

- I. The appeal lies from the decision of the opposition division dated 15 December 2009 revoking European patent 1 659 363, according to which decision the subject-matter of the claims according to the Main and the Auxiliary requests was not new (Article 52(1) and 54 EPC). The patent proprietor lodged an appeal against this decision and requested that the decision be set aside and that the patent be maintained as granted. The appellant also requested oral proceedings.
- II. In the subsequent letter of 25 March 2010 containing the Grounds of Appeal the appellant requested the patent to be maintained on the basis of amended claim 1 enclosed in this letter. In a further letter filed on 27 December 2010 the appellant submitted arguments in support of its case. With a letter of 8 September 2011 he submitted a new claim 6.
- III. With the letter of 10 September 2010 the opponent (respondent) argued that the amended claim was objectionable since the newly added features were only disclosed in the patent specification in connection with further features not included in the amended claim; furthermore the subject-matter of this claim lacked novelty. Therefore the appeal should be dismissed. In a further letter of 5 May 2011 this position was elaborated.
- IV. In a summons pursuant to Rule 115(1) EPC sent on 21 May 2013 the board invited the parties to oral proceedings to take place on 15 October 2013.

- V. With a subsequent letter filed on 9 September 2013 the appellant requested to maintain the patent with newly filed sets of claim according to a Main Request or 1<sup>st</sup> to 4<sup>th</sup> Auxiliary Requests.
- VI. In a reply filed on 9 October 2013 the respondent contested the admissibility the Main Request because claim 1 was objectionable under Articles 84 EPC and 123(2) EPC. The Auxiliary Requests suffered from the same defects and were equally objectionable.
- VII. At the oral proceedings the appellant requested that the decision under appeal be set aside and that the patent be maintained upon the basis of the claims of the Main Request, or alternatively upon the claims of any of the Auxiliary Requests I to IV, all filed under cover of the letter dated 9 September 2013.

The respondent requested that the appeal be dismissed.

- VIII. The wording of claim 1 according to the Main Request reads as follows:

" A detector supporting mechanism (10) comprising:  
a mount (21) which is linearly movable along a movement axis (HC) relative to a work (W) having a rotational centerline (WC);  
a first arm (11) having its one end fixed on the mount (21), the first arm (11) having a rotation axis (RC) at the other end;  
a second arm (12) provided on the first arm (11) so as to be turnable on the rotation axis (RC) relative to the first arm (11); and  
a detector (31) being mounted on a tip of the second arm (12),  
characterized in that:

the movement axis (HC) of the mount (21) extends toward the rotational centerline (WC) of the work (W),

the first arm (11) has a shape bent through an angle of 45° at an intermediate position in the longitudinal direction while being twisted through an angle of 45° from a vertical plane,

the rotation axis (RC) is provided on a plane inclined at an angle of 45° from the movement axis (HC) of the mount (21) while being inclined at an angle of 45° from the movement axis (HC) of the mount (21) in a projection on a plane which is inclined at an angle of 45° from the plane inclined at an angle of 45° from the movement axis (HC) of the mount (21), and which contains the movement axis (HC) of the mount (21), and

an axis (KC) of the detector (31) mounted on the second arm (12) intersects an extended line of the rotation axis (RC)".

IX. The appellant inter alia submitted the following arguments:

Amended claim 1 meets the requirements of Art. 83, 84, 123(2) and 123(3) EPC. In particular the disclosure of the features added to claim 1 in lines 3 and 4

"...movable along a movement axis (HC) relative to a work having a rotational centerline (WC)" can be found in paragraph [0032] of the patent specification; the expression in lines 10 and 11 "...the movement axis (HC) of the mount (21) extends toward the rotational centerline (WC) of the work (W)" is disclosed in paragraph [0038].

As set out in the decision under appeal, point 2.1 and 2.2, the feature in lines 12 - 14 "the first arm (11) has a shape bent through an angle of 45° at an

intermediate position in the longitudinal direction while being twisted through an angle of 45° from a vertical plane" is based on the passage in col. 6, lines 53 to 57 of the granted patent and meets the requirements of Art. 123(2) and (3) EPC. As discussed in point 2.2 of the decision, the rotary shaft member 13 is implicit in claim 1 as the rotation axis RC and the horizontal/vertical fine adjustment mechanism 22 is neither functionally nor structurally linked to the rotation axis. Furthermore according to point 3.1 of the decision, the introduced feature does not introduce a lack of clarity and the claim is clear (Art. 84 EPC). In this respect the term "intermediate" specifies that the bend of the first arm through an angle of 45° is not at an end position of the arm and that the bend is along its longitudinal direction. Also the further restriction "twisted through an angle of 45° from a vertical plane" renders clear that this twist is not in the same plane as the first bend but in a second, i.e. a vertical plane. This arrangement is unambiguously shown in Figure 5 and also Figure 3 which illustrates that the left section of the arm 11 is not in the same plane as the right section but that these sections are twisted, as schematically indicated by the dashed line. This arrangement is supported throughout the patent description.

Finally, the last paragraph of claim 1 has been clarified by defining that an axis of the detector intersects an extended line of the rotation axis RC.

X. The arguments of the respondent may be summarised as follows:

The added features in claim 1 have been taken from paragraphs [0037] and [0038] of the patent

specification. However, the embodiment disclosed in these paragraphs includes a number of further features in a close structural and functional interrelation with the now inserted features. For instance para [0037] discloses that the detector supporting mechanism is constituted by a first arm 11, a second arm 12, and a rotary shaft member 13, the latter being omitted in claim 1. According to the same paragraph [0037], one end of the first arm 11 is fixed on the mount 21 by means of a horizontal/vertical fine adjustment mechanism 22. Also this compulsory feature is missing in claim 1. The inclusion of only some of these features from the patent specification in claim 1 out of context and without the further features of the disclosed embodiment is inadmissible under Art. 123(2) EPC.

The expression in lines 12 - 14 of claim 1 is incomprehensible since it is not clear how the first arm should be "bent through an angle of 45° at an intermediate position" in the longitudinal direction and at the same time "being twisted through an angle of 45° from a vertical plane". In particular the claim does not define the spatial orientation between the first and second angles of 45° and, since claim 1 does not include any coordinate system for the detector supporting mechanism, the feature "being twisted... from a vertical plane" is undefined. It is added that, apart from the passage in paragraph [0037] which is verbatim identical to the objected feature, the patent specification does not provide any further unambiguous information for this feature. The reference to Figures 3 and 5 made by the appellant is also not conclusive because Figure 2 does not show a "twist" but rather a plane shape of the first arm 11. Hence from this feature, contrary to the provisions of Article 84 EPC,

the skilled person cannot understand the matter for which protection is sought. Therefore the claim is not allowable and the appeal should be dismissed.

## **Reasons for the Decision**

### 1. *Main Request - Claim 1*

#### 1.1 *Amendments*

1.1.1 Compared to claim 1 of the patent as granted claim 1 according to the Main Request has been amended in essentially the following additional features:

- (a) lines 2 - 3: "a mount (21) which is linearly movable along a movement axis (HC) relative to a work (W) having a rotational centerline (WC)";
- (b) lines 10 and 11: " the movement axis (HC) of the mount (21) extends toward the rotational centerline (WC) of the work (W)";
- (c) lines 12 - 14: "the first arm (11) has a shape bent through an angle of 45° at an intermediate position in the longitudinal direction while being twisted through an angle of 45° from a vertical plane"; and
- (d) line 23: the addition of "extended" in "an extended line of the rotation axis (RC)".

1.1.2 These amendments had been introduced during the opposition proceedings (*feature (c)*), and at the appeal stage (*features (a), (b) and (d)*) in an attempt to overcome the objection of lack of novelty which led to the revocation of the patent by the opposition division.



- 1.1.3 In the Decision of the Enlarged board of Appeal G9/91, point 19 of the Reasons (OJ 1993, page 408) it is stated that in case of amendments of the claims or other parts of a patent in the course of opposition or appeal proceedings, such amendments are to be fully examined as to their compatibility with the requirements of the EPC.
- 1.1.4 The opposition division did not raise any objections under Art. 84 or Art. 123(2) or (3) EPC against the amended claim 1, but instead revoked the patent for lack of novelty. During the appeal stage, and at the oral proceedings before the board, the respondent, *inter alia*, raised a number of objections against this claim under Article 84 EPC and Article 123(2) EPC.
- 1.1.5 In particular in introducing the amendment (c) in point 1.1.1 *supra* the appellant has attempted to define the structure of the first arm in more detail. In the independent claim of the patent as granted this first arm had been defined as follows:
- (i) its "one end fixed" was fixed on a mount;
  - and
  - (ii) it had a rotation axis at its other end.

Therefore in claim 1 of the patent as granted the first arm had only been defined by virtue of features found at both its ends and no constructional features of the arm as *such* had been included.

- 1.1.6 Amendment (c) addresses the following technical features:
- (i) the first arm has a shape bent through an angle of 45° at an intermediate position in the longitudinal direction;
  - (ii) while being twisted; and

(iii) this twist is through an angle of 45° from a vertical plane.

1.1.7 Feature (i) defines that the first member has a shape of an "arm" which has a longitudinal dimension. At an intermediate position the member is bent through an angle of 45°. Therefore the first part of the arm extends in a longitudinal direction and the second part of the arm is arranged at an angle of 45° to the first section, describing a cone with its apex at the bending point and a half-angle of 45°.

1.1.8 Feature (ii) defines that the arm is "twisted". However, since the shape of the outer cross-section of the arm is not defined (it could, for instance, be cylindrical; or elliptical; or square; or rectangular), the concept of "twisted" is obscure. Furthermore the claim is silent to the position of the point of the twisting, therefore it might be arranged anywhere along the first arm.

1.1.9 Finally, according to feature (iii) the twist should be "through an angle of 45° from a vertical plane". In this respect the respondent had objected that the claim does not define a spatial orientation of the components of the detector supporting mechanism, therefore an assignment of an angle of 45° relative to a "vertical plane" is meaningless.

1.1.10 Indeed, the feature "while being twisted through an angle of 45° from a vertical plane" is unclear, since the relation between the "bend through an angle of 45°" and the "twisting through an angle of 45°" is not defined. It is not even clear whether these two respective angles of 45° are in the same plane, in perpendicular or in any other plane and whether their

location is defined from the same position on the arm. Apart from the disclosure in paragraph [0037] of the patent specification which is identical to the claimed feature, the remainder of the patent description does not disclose any further information concerning this feature. Also the Figures offer only a sketchy and equivocal illustration (Figures 3 and 5 as opposite to Figure 2). Thus the skilled person is not in a position to ascertain the technical restrictions to the "first arm" as defined in claim 1. This renders this claim unclear, contrary to the provisions of Article 84 EPC.

1.1.11 Therefore, irrespective of the further amendments (*features (a), (b) and (d) in point 1.1.1*) the board finds that claim 1 of the Main Request is not allowable.

2. *The Auxiliary Requests*

The independent claims of these Requests include the same features as objected against in the Main Request. Therefore these Requests are not allowable for the same reason.

Hence, none of the appellant's Requests are allowable.

**Order**

**For these reasons it is decided that:**

The appeal is dismissed.

The Registrar:

The Chairman:



M. Kiehl

A. Klein

Decision electronically authenticated