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**Datasheet for the decision
of 2 October 2012**

Case Number: T 2023/09 - 3.4.02

Application Number: 03709088.3

Publication Number: 1474650

IPC: G01B5/008, B23Q35/04, B25J9/02

Language of the proceedings: EN

Title of invention:
AN ARTICULATED ARM FOR A PORTABLE COORDINATE MEASUREMENT
MACHINE

Patentee:
FARO TECHNOLOGIES INC.

Opponent:
Leica Geosystems

Headword:

Relevant legal provisions:
EPC Art. 84

Keyword:
question of the admissibility of the appeal left open in the
circumstances (point 1 of the Reasons)
clarity of the amended claims (no)

Decisions cited:
T 1467/11, R 16/11, R 16/10, R 20/09, R 15/09, R 14/09

Catchword:



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Chambres de recours**

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Case Number: T 2023/09 - 3.4.02

D E C I S I O N
of the Technical Board of Appeal 3.4.02
of 2 October 2012

Appellant:
(Patent Proprietor)

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Decision under appeal:

**Decision of the Opposition Division of the
European Patent Office posted 31 July 2009
revoking European patent No. 1474650 pursuant to
Article 101(3) (b) EPC.**

Composition of the Board:

Chairman: A. Klein
Members: F. Maaswinkel
B. Müller

Summary of Facts and Submissions

- I. The appeal lies from the decision of the opposition division dated 31 July 2009 revoking European patent 1 474 650, according to which amended claim 1 did not comply with the requirements of Articles 83, 84, 123(2) and 123(3) 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 or in an amended form.
- II. In the subsequent letter of 10 December 2009 containing the Grounds of Appeal the appellant requested the patent to be maintained with the amended claims enclosed in this letter. Furthermore the appellant filed an auxiliary request for oral proceedings.
- III. With the letter of 18 January 2010 the opponent requested that the appeal be dismissed as inadmissible or, otherwise, that it should not be allowed. The opponent also filed an auxiliary request for oral proceedings.
- IV. In a summons pursuant to Rule 115(1) EPC sent on 28 July 2012 the board invited the parties to oral proceedings to take place on 2 October 2012.
- V. At the oral proceedings the appellant maintained its previous requests.

The respondent requested that the appeal be rejected as inadmissible or, in the alternative, to be dismissed.
- VI. The wording of claim 1 reads as follows:

" A portable coordinate measurement machine, CMM, (10) for measuring the position of an object in a selected volume, comprising:

- a manually positionable articulated arm (14) having opposed first and second ends, said arm (14) including a plurality of joints of two types namely long joint and short joint,,
- a measurement probe (28) attached to a first end of said articulated arm (14),
- an electronic circuit (172) which receives the position signals from transducers in said arm (14) and provides a digital coordinate corresponding to the position of the probe (28) in the selected volume, each of said long and short joints comprising:
 - a rotatable shaft (60),
 - at least one bearing (50, 52) on said shaft (60),
 - a periodic pattern (94) of a measurable characteristic,
 - at least one read head (92) spaced from and in communication with said periodic pattern (94), said periodic pattern (94) and said read head (92) being associated with said shaft and housing such that said pattern and read head are rotatable with respect to each other,

characterized in that each of the short joints (18, 32, 36) and each of the long joints (16, 30, 34) comprises a modular bearing/encoder cartridge having a short cartridge (42) and a long cartridge (44, 44') comprising said rotatable shaft (60), said at least one bearing (50, 52), said periodic pattern (94) and said at least one read head (92),

the cartridge (42, 44, 44' 44"), further comprising a housing (64) surrounding said at least one bearing (50, 52), said periodic pattern (94), said at least one read head (92) and at least a portion of said

shaft (60) so as to define a discrete component, said housing (64, 64') having a pair of ends with an outer surface therebetween, said outer surface defining a structural element of said each joint, the cartridge (42, 44, 44', 44'') being mounted in the openings of dual socket joints (46, 48), each socket joint including a first cylindrical extension (47) having a first socket (120) and a second cylindrical extension (19) having a second socket (51), and being inserted in a first and a second socket (51,120), respectively of a first and a second socket joint (46, 48), and fixedly attached to the socket joints (46, 48), the short cartridge (42) being positioned in each socket (51) of dual socket joints (46) and (48) to define a hinge joint while long cartridge 44' is positioned in socket (120) of socket joint (46) and long cartridge (44') is positioned in socket (120) of socket joint (48) to each define a longitudinal swivel joint so as to define a hinge joint or a swivel joint, the shaft (60) of the cartridge (42, 44, 44', 44'') being fixedly attached to the first socket joint (46), the housing (64) of the cartridge (42, 44, 44', 44'') being fixedly attached to the second socket joint (48)".

VII. In its statement of the Grounds of Appeal the appellant inter alia submitted the following arguments:

It is submitted that amended claim 1 meets the requirements of Art. 83, 84, 123(2) and 123(3) EPC and that its subject-matter is novel and inventive. As disclosed in the description, see page 8, line 28 of the published patent application, the arm 14 is constructed of basically two types of joints namely a long joint (*for swivel motion*) and a short joint (*for*

hinge motion). This is added in claim 1. The feature according to which the periodic pattern (94) and said read head (92) are (being) associated with said shaft and housing such that said pattern and read head are being rotatable with respect to each other, which was in claim 1 of the original patent application, is reintroduced in amended claim 1. Claim 1 now recites that the invention includes a short cartridge and a long cartridge as disclosed, for example, in:

- p. 10, l. 10 to 11 of the published patent application;
- Figures 7 and 8; and
- p. 22, l. 1 to 5.

Amended claim 1 further recites that the cartridges "*are mounted in the openings of dual socket joints (46, 48), each socket joint including a first cylindrical extension (47) having a first socket (120) and a second cylindrical extension (19) having a second socket (51)*",

and that

"the short cartridge (42) being positioned in each socket (51) of dual socket joints (46) and (48) to define a hinge joint while long cartridge 44' is positioned in socket (120) of socket joint (46) and long cartridge (44') is positioned in socket (120) of socket joint (48) to each define a longitudinal swivel joint "

which is disclosed, for example, in:

- p. 10, l. 12 to 20 of the published patent application;
- Figures 7 and 8;
- p. 20, l. 11 to p. 22, l. 5; and
- Figure 26.

Amended claim 1 now defines a CMM having a short cartridge, both ends of which are inserted in each socket 51 of two dual socket joints to define a hinge joint and a long cartridge inserted in the second 120 of the dual socket joint. Therefore this claim meets the requirement of Art. 83 and 84 EPC. Furthermore amended claim 1 does not include any added subject matter and thus meet the requirement of Art 123(2) EPC since this claim includes new technical features that narrow the scope of the independent claim.

During the oral proceedings before the board the appellant maintained its above arguments.

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

The appeal is formally inadmissible because the Grounds of Appeal do not comply with the requirements of Rule 99(2) EPC since the appellant has not indicated the reasons why the appealed Decision should be set aside. Instead, in the Grounds of Appeal the appellant has simply asserted that the new claims meet the requirements of Articles 83, 84, 123(2) and 123(3) EPC without, however, substantiating this allegation in the sense that the appellant did not address in detail the objections raised by the opposition division.

Furthermore, apart from the lack of a formal discussion in the Grounds of Appeal of the reasons for the Decision to revoke the European patent the present appeal is not substantiated because there is no discussion either as to why claim 1 would overcome the objections in the Decision under Articles 83, 84, 123(2) and (3) of the Convention.

In particular in point 3 and point 5 of the Decision under appeal it was objected that the feature "...the short cartridge (42) being positioned in a first and second socket (51) of a dual socket joint (46)..." was objectionable under Art. 84 EPC because it was not understandable how a cartridge could be inserted into the sockets of a single dual socket joint. It was also objected that this feature did not have a basis in the original application documents, whence this feature was also being objectionable under Art. 123(2) EPC. The amended claim reads "...the short cartridge (42) being positioned in each socket (51) of dual socket joints (46) and (48)..." which is essentially the same expression and suffers from the same deficiency, because, according to the new definition, the short cartridge is positioned in each (therefore: in two) socket of each socket joint.

Furthermore, the amended expression "...each of the short joints (18, 32, 36) and each of the long joints (16, 30, 34) comprises a modular bearing/encoder cartridge having a short cartridge (42) and a long cartridge (44, 44')..." is obscure (Art. 84 EPC), since according to this expression each joint comprises a "modular bearing/encoder cartridge having a short cartridge as well as a long cartridge", therefore each short joint should comprise a short cartridge and a long cartridge, and similarly each long joint. This is not understandable, the feature cannot be carried out, and it is also not originally disclosed.

In addition during the oral proceedings the respondent raised further objections against amended claim 1 which for the purpose of the present Decision need not be addressed.

Reasons for the Decision

1. *Admissibility*

1.1 In its letter of reply to the letter containing the Grounds of Appeal the respondent had objected that the appeal was inadmissible. At the oral proceedings before the board the respondent repeated its objection, requesting that the appeal be rejected as inadmissible. The board, after having heard the arguments of the parties on this issue, decided to discuss the merits of the appeal without first having decided on the issue of admissibility of the appeal.

1.2 As set out in the recent Decision T1467/11 (see point 1 of the Reasons for the Decision), in appeal proceedings in which the question of allowability of an appeal can be readily decided but no decision on its admissibility can be taken yet, the issue of admissibility of the appeal can be left open. Similarly, in a number of decision on petitions for review (Article 112a EPC), the Enlarged Board of Appeal did not arrive at a final conclusion as to whether the petition in question was clearly inadmissible (or inadmissible), because it found the petition to be clearly unallowable (or unallowable) (see R 16/11, point 1.2, R 16/10, point 1.2, R 15/09, point 3, R 20/09, point 1.4 and R 14/09, point 4).

In the present case, the arguments forwarded by the parties at the oral proceedings enabled the board to readily decide on the merits of the case, whereas the complex question of admissibility of the appeal would

have required a more thorough enquiry. Therefore, this latter question is left an open one.

2. *Claim 1*

2.1 In its Decision the opposition division had raised objections under Article 123(2) EPC, Article 84 EPC and also Article 83 EPC against the expression in former claim 1 "*...the short cartridge (42) being inserted in a first and a second socket joint of a dual socket joint(46)...*". In point 3 of the Decision it was observed with reference to Figure 8 and the corresponding part of the description that dual socket joints 46 and 48 each have a socket 51 and that therefore the short cartridge is inserted into a specific socket of two different dual socket joints. Furthermore in point 5 it was objected that this expression was not clear (Art. 84 EPC) because it was not understandable how a cartridge could be inserted into the sockets of a single dual socket joint.

2.2 With the Statement of Grounds of Appeal the appellant submitted an amended claim 1, replacing the previous claim 1, on which basis the patent should be maintained. In this claim, the expression objected to had been amended as follows:

"...the short cartridge (42) being positioned in each socket (51) of dual socket joints (46) and (48)..." . In its letter of reply to the Statement of Grounds of Appeal the respondent had *inter alia* objected that the corresponding expression in amended claim 1 suffered from the same defect as the expression in the prior claim, because also the new expression defined that the short cartridge is positioned in each socket of dual socket joints.

- 2.3 The board concurs with the respondent that the expression objected to is obscure and, having regard to the disclosure in the patent, in particular Figures 7 and 8, this expression does not reflect the actual disclosure, since in fact the short cartridge 42 is positioned in a second recess or socket 51 of a dual socket joint 48 and in a further second recess or socket 51 of a different dual socket joint 46, see para [0019] of the patent specification. Therefore the expression objected to in amended claim 1 indeed is in conflict with the provisions of Article 84 EPC 1973.
- 2.4 In its letter of 18 January 2010, and again at the oral proceedings, the respondent had also made reference to the expression in amended claim 1 "...each of the short joints (18, 32, 36) and each of the long joints (16, 30, 34) comprises a modular bearing/encoder cartridge having a short cartridge (42) and a long cartridge (44, 44')..." as (*amongst others*) being objectionable under Article 84 EPC. Indeed, as, for example, illustrated in Figures 4 and 5, a short joint 18 does not comprise a long cartridge; similarly long joint 16 does not comprise a short cartridge. It is concluded that the expression objected to does not reflect the embodiments disclosed in the patent specification.
3. Therefore, even if disregarding the further objections under Article 83 and 123(2) and (3) EPC in the Decision under Appeal and repeated against the amended claims by the respondent, the board finds that the amendments in present claim 1 are contrary to the provisions of Article 84 EPC 1973 and that the claim being the subject of the appellant's single request cannot be allowed.

4. Therefore, irrespective of whether the appeal is admissible, the appellant's request is not allowable.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



M. Kiehl

A. G. Klein

Decision electronically authenticated