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Datasheet for the decision of 16 May 2022

Case Number: T 0471/18 - 3.2.08

Application Number: 10182769.9

Publication Number: 2314259

IPC: A61F2/46, A61B17/88

Language of the proceedings: EN

Title of invention:
Hydraulic device for injection of bone cement in percutaneous vertebroplasty

Patent Proprietor:
Depuy Spine, Inc.

Opponents:
KIPA AB
Loyer & Abello

Headword:

Relevant legal provisions:
EPC R. 99(1)(c)
EPC Art. 123(2)

Keyword:
Admissibility of appeal - notice of appeal - request defining subject of appeal (yes)
Amendments - all requests - allowable (no)

Decisions cited:

Catchword:

Europäisches Patentamt
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Office européen des brevets

Beschwerdekammern

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Case Number: T 0471/18 - 3.2.08

D E C I S I O N
of Technical Board of Appeal 3.2.08
of 16 May 2022

Appellant 1: (Patent Proprietor)	Depuy Spine, Inc. 325 Paramount Drive Raynham, MA 02767 (US)
Representative:	Pawlyn, Anthony Neil Murgitroyd & Company Cardiff Churchill House Churchill Way Cardiff CF10 2HH (GB)
Appellant 2: (Opponent 1)	KIPA AB P O Box 1065 251 10 Helsingborg (SE)
Representative:	KIPA AB P O Box 1065 251 10 Helsingborg (SE)
Appellant 3: (Opponent 2)	Loyer & Abello 9, rue Anatole de la Forge 75017 Paris (FR)
Representative:	Loyer & Abello 9, rue Anatole de la Forge 75017 Paris (FR)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted on 19 December 2017 concerning maintenance of the European Patent No. 2314259 in amended form.**

Composition of the Board:

Chairwoman	P. Acton
Members:	M. Olapinski
	C. Schmidt

Summary of Facts and Submissions

I. The appeals were filed by the patent proprietor and both opponents against the opposition division's interlocutory decision to maintain the patent in amended form according to auxiliary request 1 filed during the oral proceedings.

II. Oral proceedings were scheduled for 4 March 2022 and cancelled after a letter was received from the patent proprietor indicating that it would not be attending.

III. Appellant 1 (patent proprietor) requested that the decision under appeal be set aside and that the patent be maintained on the basis of, in that order, the main request filed on 27 April 2018, auxiliary request 2 filed on 7 September 2018 or auxiliary request 1 filed on 27 April 2018.

IV. Appellant 2 (opponent 1) and appellant 3 (opponent 2) requested that the decision under appeal be set aside and that the patent be revoked in its entirety.

V. Claim 1 of the main request reads (feature references a), b) c) etc. added by the Board):

"**a**) A device for delivering a viscous bone cement material
b) under fluoroscopy to trabecular bone or a cavity formed in a patient’s vertebral body, comprising:
c) an injecting syringe (a) for placement next to a patient
d) having a chamber loaded with bone cement prior to the bone cement having set,
e) an exit port connected to a bone needle, and

f) a plunger (11) that pushes the bone cement through the exit port for delivery through the bone needle for injection into a vertebral body;
g) a hollow cylindrical pressure part (1)
h) having a closed hydraulic space (5) for transmitting pressure to the plunger;
i) a hydraulic pressure generator (8)
j) containing enough volume of an incompressible fluid to impel the plunger of the injecting syringe to deposit the required quantity of bone cement in the vertebral body; and
k) a hydraulic tube (10) for pressure transmission connecting the hydraulic pressure generator to the pressure part;
l) wherein the hydraulic tube connecting the hydraulic pressure generator to the pressure part facilitates the generation of hydraulic pressure
m) from a location outside a field of fluoroscopic imaging of the patient so that a flow of viscous bone cement can be hydraulically driven through the exit port for delivery through the bone needle to the desired injection site within the patient whilst reducing exposure of an operator to ionizing radiation."

VI. Claim 1 of auxiliary request 1 differs therefrom through the replacement of "hydraulic pressure generator" with "manual syringe", but only in Feature i) and not in Features k) and l).

VII. Claim 1 of auxiliary request 2 differs from claim 1 of the main request through the replacement of "hydraulic pressure generator" in Features i), k) and l) with "manual syringe".

VIII. The arguments put forward by appellants 2 and 3 (opponents) can be summarised as follows:

Admissibility of appellant 2's appeal

The notice of appeal filed by appellant 2 contained the implicit request for revocation of the patent in its entirety.

Main request - Article 123(2) EPC

Feature j) was only disclosed in connection with additional limitations, namely a hydraulic press the working principle of which involved the amplification of hydraulic pressure due to different diameters of the manual syringe and the pressure part. The aforementioned additional limitations were essential and they were inextricably linked with Feature j), but they were not included in claim 1. Feature j) thus represented an unallowable intermediate generalisation of the content of the application as filed.

Auxiliary requests 1 and 2

Claim 1 of auxiliary requests 1 and 2 also included Feature j) and thus contained the same unallowable intermediate generalisation as the main request.

IX. Appellant 1 argued essentially as follows:

Admissibility of appellant 2's appeal

The notice of appeal filed by appellant 2 did not meet the requirements of Rule 99(1)(c) EPC as it did not contain a request defining the subject of the appeal.

Main request - Article 123(2) EPC

Feature j) was originally disclosed on page 13, line 26, to page 14, line 4. The amplification of hydraulic pressure was only optional and was not inextricably linked with Feature j). The omission of the additional structural limitations regarding the diameter and length of the manual syringe did not therefore extend beyond the content of the application as filed.

Auxiliary requests 1 and 2

X. The same applied to auxiliary requests 1 and 2.

Reasons for the Decision

1. Admissibility of appellant 2's appeal

Appellant 2's notice of appeal is explicitly directed "against" the opposition division's interlocutory decision "to maintain the opposed patent in amended form". In the absence of further qualification and in view of the extent of the opposition, this wording used by appellant 2 is understood to implicitly contain the request that the patent be revoked in its entirety. Accordingly, appellant 2's notice of appeal fulfils the requirements of Rule 99(1)(c) EPC.

2. Main request - Article 123(2) EPC

2.1 The backbone of claim 1 of the main request is derived from page 17, lines 8 to 21, of the patent application as filed.

2.2 Feature j) of claim 1 specifies that the "hydraulic pressure generator" of Feature i) (which corresponds to a "manual syringe" (8) in the application) contains "enough volume of an incompressible fluid to impel the plunger of the injecting syringe to deposit the required quantity of bone cement in the vertebral body".

2.3 According to appellant 1, Feature j) could be derived from page 13, line 26, to page 14, line 4. It defined the *volume* of the manual syringe in terms of its function. It was permissible to omit the additional structural features disclosed in this passage, e.g. that the *diameter* of the manual syringe was smaller than that of the hollow cylindrical pressure part and that, hence, the *length* of the manual syringe had to be correspondingly greater than that of the hollow cylindrical pressure part. This was the case because the above-mentioned additional structural features only related to the optional example of a hydraulic press, whereas the invention was not restricted to a hydraulic press but also covered arrangements in which the diameters of the manual syringe and the hollow cylindrical pressure part were the same. Moreover, hydraulic amplification was only referenced in some, but not all, of the invention's "objectives" on pages 7-8. Hence, those features relating to hydraulic pressure amplification in a hydraulic press were not essential and could be generalised without infringing Article 123(2) EPC.

2.4 According to appellants 2 and 3, the passage from page 13, line 24, to page 14, line 4, of the application as filed explicitly disclosed that the device operated "according to the hydraulic press" illustrated in Figure 8 and that the manual syringe

thus had to have a smaller diameter than the hollow cylindrical pressure part. The different diameters led to an amplification of hydraulic pressure, which was essential for the device according to the invention (page 10, lines 8-9) and, hence, was inextricably linked with Feature j). As claim 1 did not specify the operation of the device as a hydraulic press, the amplification of hydraulic pressure nor that the diameter of the manual syringe was smaller than that of the hollow cylindrical pressure part, Feature j) involved an unallowable intermediate generalisation of the content of the application as filed, contrary to the requirements of Article 123(2) EPC.

2.5 The passage on page 13, line 24, to page 14, line 4, of the application as filed reads as follows:

"The manual syringe (8), has a smaller diameter than the body of pressure (1) in a 2/1, 3/1 or 4/1 ratio that may vary according to the necessity of each case. According to the hydraulic press described in the figure 8, the longitude of the manual syringe should be larger than that of the body of pressure (1) with the purpose of containing enough volume to displace the piston the distance required to impel the plunger of the injecting syringe. this [sic] way, the quantity required of bone cement is deposited in the vertebral body".

This paragraph does not only disclose the general requirement that the volume of the manual syringe must be large enough for the required quantity of bone cement to be deposited as specified in Feature j).

It furthermore specifies the additional limitations that the manual syringe "has a smaller diameter" than

the hollow cylindrical pressure part ("body of pressure") and that, hence, the length ("longitude") of the manual syringe must be greater than that of the hollow cylindrical pressure part. These relationships are disclosed as being according to the working principle of a "hydraulic press" as shown in Figure 8 and which involves the "amplification of hydraulic pressure": a small input ("entrance") force acting on an input piston is amplified into a larger output ("exit") force acting on "an exit piston with a larger area than that of the entrance piston" (see page 10, lines 8-25).

These additional limitations of the embodiment disclosed on page 13, line 24, to page 14, line 4, are indeed not present in claim 1.

2.6 Contrary to appellant 1's submissions, these additional limitations are essential features of the invention and are inextricably linked with Feature j) for the following reasons.

The passage on page 13, line 24, to page 14, line 4, is part of the "detailed description of the invention", which describes "a new device" (page 9, line 23), the "basic principle for the operation" of which is "the amplification of the hydraulic pressure generated at distance and transmitted by the hydraulic tube" (page 10, lines 8 to 9).

The new device is described as consisting of four main parts (page 12, lines 2-4): a (distal) "injecting syringe" in the vicinity of the patient, a "pressure exerting body", a "hydraulic tube" and a (proximal) "manual syringe". These main parts are described in more detail on the subsequent pages. Page 13, lines

1-2, concerns the "part of pressure" and discloses that it has a "syringe body (1) of larger diameter" than the "syringe at the proximal end of the complete device". This is in line with the passage on page 13, line 24, to page 14, line 4, which pertains to the "manual syringe" and discloses that "the manual syringe has a smaller diameter than the body of pressure".

Hence, the detailed description of the "new device" consistently specifies the additional limitation that the manual syringe has a smaller diameter than the hollow cylindrical pressure part, which leads to the "amplification of hydraulic pressure" in accordance with the "basic principle for the operation of the device of the present invention" (page 10, lines 8-10).

2.7 Therefore, the proportions between the diameters and the lengths of the manual syringe and of the pressure part are not merely optional, exemplary features. They form an essential part of the embodiment of page 13, line 24, to page 14, line 4, and are inextricably linked with Feature j).

2.8 Hence, Feature j) was not originally disclosed without the aforementioned additional limitations. Accordingly, the subject-matter of claim 1 of the main request contains an unallowable intermediate generalisation and does not meet the requirements of Article 123(2) EPC.

3. Auxiliary requests 1 and 2

Claim 1 of auxiliary requests 1 and 2 differs from claim 1 of the main request merely through the replacement of the term "hydraulic pressure generator" with "manual syringe" in Feature i) in auxiliary request 1 and in Features i), k) and l) in auxiliary

request 2. Accordingly, claim 1 of auxiliary requests 1 and 2 still contains Feature j) without specifying the further inextricably linked additional limitations identified above.

Hence, the subject-matter of claim 1 of auxiliary requests 1 and 2 contains the same unallowable intermediate generalisation as the main request, and thus does not fulfil the requirements of Article 123(2) EPC either.

4. Since none of the requests is allowable, the patent has to be revoked. This decision could be taken in written proceedings because the patent proprietor's announcement that it would not be attending the oral proceedings is considered to imply a withdrawal of its request for oral proceedings.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The patent is revoked.

The Registrar: The Chairwoman:

C. Moser P. Acton

Decision electronically authenticated