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**Datasheet for the decision
of 16 September 2008**

Case Number: T 1317/04 - 3.2.05

Application Number: 93103278.3

Publication Number: 0614008

IPC: F04B 17/04

Language of the proceedings: EN

Title of invention:

Electromagnetically operated fixed displacement pump

Patentee:

Iwaki Co., Ltd.

Opponent:

ProMinent Dosiertechnik GmbH

Headword:

-

Relevant legal provisions:

EPC Art. 84, 123, 56

Relevant legal provisions (EPC 1973):

-

Keyword:

"Clarity (main request) - no"

"Extension beyond the application as filed (main request) -
yes"

"Inventive step (auxiliary request) - yes"

Decisions cited:

G 0009/92, G 0001/99

Catchword:

-



Case Number: T 1317/04 - 3.2.05

D E C I S I O N
of the Technical Board of Appeal 3.2.05
of 16 September 2008

Appellant: ProMinent Dosiertechnik GmbH
(Opponent) Im Schuhmachergewann 5-11
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Representative: Knoblauch, Andreas
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Respondent: Iwaki Co., Ltd.
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Decision under appeal: Interlocutory decision of the Opposition
Division of the European Patent Office posted
6 September 2004 concerning maintenance of
European patent No. 0614008 in amended form.

Composition of the Board:

Chairman: W. Zellhuber
Members: H. Schram
E. Lachacinski
S. Bridge
C. Rennie-Smith

Summary of Facts and Submissions

- I. The appellant (opponent) lodged an appeal against the decision of the Opposition Division posted 6 September 2004 maintaining the European patent No. 0 614 008 in amended form on the basis of auxiliary request 1 of the respondent (patent proprietor) filed on 3 March 2004.

The Opposition Division held that the amended patent did not contain subject-matter which extended beyond the content of the application as filed (Article 123(2) EPC) and that the grounds of opposition under Article 100(a) EPC (lack of novelty, Article 54 EPC, and lack of inventive step, Article 56 EPC) did not prejudice the maintenance of the patent in amended form.

The Opposition Division further decided in accordance with Article 104(1) EPC that the respondent pay 50% of the costs incurred by the appellant in relation to the second oral proceedings before the Opposition Division conducted on 6 April 2004.

- II. Oral proceedings were held before the Board of Appeal on 16 September 2008.
- III. The appellant requested that the decision under appeal be set aside other than as to costs and that the European patent No. 0 614 008 be revoked in its entirety.

The respondent requested as main request that the appeal be dismissed, or, alternatively, that the decision under appeal be set aside and that the patent in suit be

maintained on the basis of claims 1 to 3 submitted as auxiliary request during oral proceedings.

IV. The following documents were *inter alia* referred to in the appeal proceedings:

- D2 ProMinent gamma/5. Programmierbare Dossierintelligenz. Dialogfähig!, brochure of ProMinent Dosiertechnik GmbH
- D5 Drawing 10_21-003_00_00-03 dated 28.6.90 of ProMinent Dosiertechnik GmbH, entitled "Haube kpl. gamma/5"
- D6 ProMinent gamma/5. Fördereinheiten und Antrieb, Ersatzteilliste, brochure of ProMinent Dosiertechnik GmbH
- D20 US 4,537,565
- D21 US 4,272,225

V. Claim 1 of the main request of the respondent (ie claim 1 on the basis of which the Opposition Division intended to maintain the patent) reads as follows:

"1. An electromagnetically operated fixed displacement pump comprising a pump body (10), a pump head (16) provided at end thereof in the axial direction and having an inlet port (16A) and a discharge port (16B), said pump body accommodating an electromagnetic coil (20), a movable armature (26) movable in the axial direction (x - x) of said pump body with energization of said coil and a reciprocating member movable in unison with said armature

in the axial direction of said pump body, said pump head having a pump chamber defined therein and communicating with said inlet port and said discharge port via valve means, the volume of said pump chamber being varied with the reciprocation of said reciprocating member to obtain pumping operation, a stroke adjustment assembly (18) disposed on the side of said pump body opposite said pump head in the axial direction of said pump body for adjusting the stroke of said armature, said stroke adjustment assembly including a stop member (34) displaceable in the axial direction of said pump body, operating means (38) for causing the displacement of said stop member by external manual rotating operation, and coupling means (40, 42) operatively coupling said operating means and said stop member, stroke number control means (62) for adjustably selecting the frequency of energization of said electromagnetic coil to thereby control the stroke number of said armature, said pump body being provided with power source connection means (64) for energizing said electromagnetic coil,

characterized by further comprising:

a control unit (14) with said stroke number control means and said power source connection means provided thereon;

said stroke adjustment assembly (18) being disposed on said side of said pump body independent of said control unit (14);

mounting means (48, 50) for detachably mounting said control unit on a region of the outer surface of said pump body, said region is closed; and

terminal means (12) having coil tabs (58, 60) projecting from said outer surface of said pump body insertable into receptacles of said control unit for electrically connecting said pump body and said control

unit in a state with said control unit mounted on said pump body;

whereby a plurality of said control units are provided as said control unit for various pump specifications, one of said plurality of control units being replaceably mounted on said pump body."

Claim 1 of the auxiliary request differs from claim 1 of the main request in that the word "an" is inserted between the words "at" and "end" in the preamble; the expression "a region of" in the characterizing part is deleted; the expression ", said region is closed" is replaced by the expression "; *said mounting means comprising an engagement recess (50) in the control unit and a rectangular mounting base (48) formed by molding together with a synthetic resin frame (32) of the pump body on the top of the pump body, said engagement recess (50) of the control unit is fitted on the rectangular mounting base (48) for mounting the control unit (14) on the pump body, whereby the mounting is completed by inserting a mounting bolt (52) as securing means through a bolt insertion hole (54) with the mounting base (48) held engaged and screwing the bolt (52) into a bolt reception hole (56) formed in the mounting base (48)*"; the expression "coil tabs (58, 60)" is replaced by the expression "*a pair of coil tabs (58) provided on the opposite sides of the bolt hole 56 and a grounding tab (60), said tabs*" and in that the expression "receptacles of" is replaced by the expression "*receptacles provided in*".

VI. The arguments of the appellant, in writing and during the oral proceedings, can be summarized as follows:

The feature "said region is closed" in claim 1 of the main request which had been added during the opposition proceedings was not clear, contrary to Article 84 EPC. A "closed region" could have various possible meanings, such as a region enclosed by a boundary ("umgrenzter Bereich") or a region having a closed surface ("geschlossene Oberfläche"). The patent in suit however was silent about its possible meaning. There was also no basis in the application documents as filed for said feature, contrary to Article 123(2) EPC.

In a letter dated 12 April 2006, i.e. almost 17 months after the notice of appeal was filed on 15 November 2004, the respondent had referred to the (then) auxiliary requests 2 and 3 filed on 3 March 2004 before the Opposition Division as fall back positions in case the Board would not dismiss the appeal. Up to the filing of these auxiliary requests, which no longer contained the contested feature "said region is closed", the respondent had merely defended in the appeal proceedings its patent as maintained by the Opposition Division. The respondent should not be allowed to pursue claims not containing the contested feature at such a late stage in the appeal proceedings. Moreover, such a claim put the appellant in a worse situation than if it had not appealed. The decision G 1/99 (*Reformatio in peius* / 3M, OJ EPO 2001, 381) of the Enlarged Board of Appeal was not applicable, since, firstly, in the case dealt with by the referring Board the non-appealing patent proprietor could not have filed an appeal, whereas in the present case the respondent could have, and, secondly, in the former case

the patent could not be maintained for reasons which were raised for the first time in the appeal proceedings, whereas in the present case the objections to the feature "said region is closed" had already been raised in the opposition proceedings. Since the respondent had not filed an appeal as a security measure, and had failed to file claims no longer containing the contested feature at an early stage in the appeal proceedings, the exception of the principle of *reformatio in peius* provided for in decision G 1/99 (loc. cit) should for reasons of equity not be applied to the detriment of the appellant.

The feature "*a rectangular mounting base (48) formed by molding together with a synthetic resin frame (32) of the pump body on the top of the pump body*" in claim 1 of the auxiliary request was unclear, since it left open whether the mounting base was integrally formed with the pump body, or formed *in situ* on the synthetic resin frame (32) of the pump body.

The prior use pump "ProMinent gamma/5" comprised a pump body and a replaceable control unit comprising a controller for the stroke number and a controller to control the stroke length. This pump represented the closest prior art. The person skilled in the art knew that the stroke number controller and the stroke length controller were independent functional units (see documents D20 and D21), and could be combined into a single unit (cf. the detachable or movable cover or wall 3 of the pump housing comprising control knobs 35 and 38, see column 4, lines 53 to 55, and Figure 1 of document D20), or mounted as separate units (see Figure 1 of document D21 showing controls 24 and 29). The remaining distinguishing features of claim 1 of the main request,

viz. the "coil tab" feature and the "mounting means" feature, were constructional details coming within the scope of the customary practice followed by a person skilled in the art. The subject-matter of claim 1 of the auxiliary request did not therefore involve an inventive step.

VII. The respondent's arguments, in writing and during the oral proceedings, can be summarized as follows:

The feature "said region is closed" meant that there were no through openings between the outside and the inside of the pump body in the mounting base 48. This was clearly disclosed in Figure 2 of the application as filed. Claim 1 of the main request thus met the requirements of Articles 84 and 123(2) EPC.

The decision G 1/99 (loc. cit) allowed a non-appealing patent proprietor to file amendments in circumstances where the patent as maintained in amended form would otherwise have to be revoked as a direct consequence of an inadmissible amendment held allowable by the Opposition Division in its interlocutory decision, and also laid down a strict order of possible amendments in order to overcome the deficiency. In claim 1 of the auxiliary request the originally disclosed features "*said mounting means comprising ... formed in the mounting base (48)*" were taken up, which limited the scope of protection of the patent as maintained, in accordance with the first possibility for allowable amendments in G 1/99 (loc. cit). Since the amendment "said region is closed" was held allowable by the Opposition Division, it would run counter the principle of good faith if the patent proprietor would have to file a cross appeal merely to be able to file

further amendments to the request on the basis of which the Opposition Division intended to maintain the patent, in case the Board had a different opinion from the Opposition Division on said request.

Claim 1 of the auxiliary request comprised a number of features which should not be considered in isolation but in combination. The main difference of the pump according to claim 1 of the auxiliary request with respect to the pump "ProMinent gamma/5" was that in the pump according to the invention the stroke number controller and the stroke length controller were independently replaceable, thus increasing the modularity of the concept. In the pump according to claim 1 of the auxiliary request the electrical connections, ie a pair of coil tabs 58 and a grounding tab 60, were projecting from the outer surface of the pump body and were thus freely accessible. This opened the possibility to "click" the control unit 14 on the pump body, whereby the coil tabs 58 and a grounding tab were inserted into receptacles provided in the control unit 14. The control unit 14 was secured to the pump body by a single mounting bolt, whereby misalignment was prevented by fitting an engagement recess 50 of the control unit onto the rectangular mounting base 48 of the pump body. None of these features were known from the prior art. It followed that the subject-matter of claim 1 of the auxiliary request was not obvious to the person skilled in the art.

Reasons for the Decision

MAIN REQUEST

1. *Admissibility of the amendments, Articles 84 and 123(2)
EPC*

1.1 Claim 1 of the main request differs from claim 1 as granted *inter alia* in that the following underlined features have been added:

"mounting means (48, 50) for detachably mounting said control unit on a region of the outer surface of said pump body, said region is closed"

The terms "region" and "closed" do not appear in the application documents as filed. The term "region" in the expression "said region is closed" refers to the "mounting region" of the control unit, as is clear from the amended feature read as a whole. The description of the application as filed is silent about the meaning, or possible interpretation, of the notion of "mounting region". For example, it is not clear whether the mounting region of the control unit consists of the top and side surfaces of the mounting base 48 shown in Figure 2, or extends to the whole area of contact between the control unit and the pump body as shown in Figure 1 (or possibly merely pertains to the area around the bolt reception hole, where the control unit and the pump body are bolted together). Furthermore, if for example a cup shaped control unit is mounted upside down on a flat base, it is not clear whether the ring shaped area of contact between the control unit and the base constitutes the mounting region, or whether the mounting region extends to the area

inside said ring shaped area. In the former case, claim 1 would merely require that the ring shaped region is "closed", in the latter case claim 1 would in addition require that the region within the ring is also "closed".

The respondent has argued that the expression "closed region" ("geschlossene Oberfläche") meant that there were no through openings between the outside and the inside of the pump body in said region.

However, it is not clear whether the adjective "closed" pertains to the pump body wall as suggested by the respondent, or rather to the outer surface of the pump body, an interpretation which follows straightforwardly by substituting "said region" by "[a] region of the outer surface of said pump body" in the amended feature. The latter possibility would not only require the absence of through openings in the pump body wall, but also require the absence of dents, holes or similar in the outer surface of the pump body.

Assuming that the expression "said region is closed" is intended to exclude the presence of through passages in the pump body wall, it still remains unclear, whether a region with drill holes closed by bolts, or with through passages for electrical connections closed by moulded-in coil- or grounding tabs or the like, can still be considered a closed region or not.

In the judgement of the Board the expression "said region is closed" is therefore not clear in the meaning of Article 84 EPC.

- 1.2 The rectangular mounting base 48 is shown in Figures 1 and 2. Figures in patent applications are normally schematic. For example, the grounding tab 60 shown in Figure 1 is not shown to extend into the mounting base 48, although the person skilled in the art would expect this to be the case in order that the grounding tab fulfils its function.

In the judgement of the Board Figure 2 does not disclose directly and unambiguously to the person skilled in the art that the surface of the rectangular mounting base 48 is, apart from the bolt reception hole 56, a closed surface, since no conclusion can be drawn from the *absence* of details in a schematic drawing.

Consequently, claim 1 of the main request extends beyond the content of the application as filed, Article 123(2) EPC.

AUXILIARY REQUEST

2. *Auxiliary request filed during oral proceedings to be admitted into the appeal proceedings?*

Claim 1 of the auxiliary request was filed during oral proceedings in response to objections of the Board raised then for the first time, namely that the features "*terminal means (12) having coil tabs (58, 60) projecting from said outer surface of said pump body insertable into receptables of said control unit*" present in claim 1 of the main request, and in claim 1 of the first and second auxiliary requests filed on 18 August 2008 and "*with a frame on the top of the pump body*" present in claim 1 of said first and second auxiliary requests represented intermediate generalizations for which no basis can be

found in the application as filed, thus contravening the requirements of Article 123(2) EPC. Said features were amended (amendments underlined) to read "terminal means (12) having a pair of coil tabs (58) provided on the opposite sides of the bolt hole 56 and a grounding tab (60), said tabs projecting from said outer surface of said pump body insertable into receptacles provided in said control unit" and "with a synthetic resin frame (32) of the pump body on the top of the pump body", respectively. The auxiliary request replaced the first and second auxiliary requests filed on 18 August 2008. Since, moreover, the amended features were taken almost verbatim from the description of the application as filed, the Board - in exercising its discretion to accept amended claims at any stage of the appeal proceedings - admitted the auxiliary request.

It may be noted that claim 1 of the second auxiliary request filed on 18 August 2008 is based on claim 1 filed as "Hilfsantrag 3" on 3 March 2004 before the Opposition Division, which request was reintroduced into the appeal proceedings as (then) second auxiliary request with a letter filed on 13 April 2006. In point 7 of the communication annexed to the summons to attend oral proceedings the Board duly gave its provisional opinion on claim 1 of the (then) first and second auxiliary requests which no longer contained the limitation "said region is closed". It may further be noted that claim 1 of the second auxiliary request filed on 18 August 2008, which claim no longer contained the contentious feature "said region is closed" but instead contained the additional feature "said mounting means comprising ... formed in the mounting base (48)" (cf. point V above), was filed in response to said communication, wherein the Board

expressed its provisional opinion that claim 1 of the main request seemed to extend beyond the content of the application as filed (Article 123(2) EPC). The additional feature mentioned above was also taken almost verbatim from the description of the application as filed. In exercising its discretion the Board thus allowed the respondent to take claim 1 of the second auxiliary request filed on 18 August 2008 as a basis for formulating a new auxiliary request.

3. *Exception to the principle of reformatio in peius*

3.1 Claim 1 of the auxiliary request differs from claim 1 of the request on the basis of which the Opposition Division intended to maintain the patent (main request) *inter alia* in that the limitation "said region is closed" has been deleted, which deletion extends the scope of protection afforded by the claim (but not beyond the boundaries of Article 123(3) EPC). The fact that the Board found that the expression "said region is closed" is not clear (see point 1 above) does not imply that this expression is devoid of technical meaning. It may be noted that deleting the expression "a region of" from the phrase "mounting ... on a region of the outer surface of said pump body" does not change the scope of protection with respect to claim 1 of the main request.

The auxiliary request of the respondent, if held allowable, thus puts the appellant in a worse situation in this respect than if he had not appealed (prohibition of *reformatio in peius*), see the decision of the Enlarged Board of Appeal G 9/92 (Non-appealing party / BMW, OJ EPO 1994, 875), point 2 of the Order. It is irrelevant in this respect that additional features have been added to claim

1 of the auxiliary request with respect to claim 1 of the main request (see point V above), which limit the scope of protection.

In decision G 1/99 (*Reformatio in peius* / 3M, OJ EPO 2001, 381) the Enlarged Board of Appeal however allowed an exception to this principle (see Order): *In principle, an amended claim, which would put the opponent and sole appellant in a worse situation than if it had not appealed, must be rejected. However, an exception to this principle may be made in order to meet an objection put forward by the opponent/appellant or the Board during the appeal proceedings, in circumstances where the patent as maintained in amended form would otherwise have to be revoked as a direct consequence of an inadmissible amendment held allowable by the Opposition Division in its interlocutory decision.*

The Enlarged Board of Appeal laid down a strict order of possible amendments that a patent proprietor was allowed to file in order to overcome the deficiency.

The Board is satisfied that in the present case it is not possible, while maintaining the expression "said region is closed", to introduce one or more originally disclosed features which would limit, or extend - within the limits of Article 123(3) EPC - the scope of the patent as maintained such that the resulting claim meets the requirements of Articles 84 and 123(2) EPC.

It follows that the final remedy suggested by the Enlarged Board of Appeal, namely to delete the inadmissible amendment, but within the limits of Article 123(3) EPC, is allowable.

It may be noted that whilst the additional feature "*said mounting means comprising ... formed in the mounting base (48)*" in claim 1 of the auxiliary request can be formally said to "replace" the feature "*, said region is closed*" of claim 1 of the main request (cf. point V above), the situation is that the feature "*said region is closed*" has been deleted and that, independently thereof, other features have been added. Said additional feature can therefore not be regarded as a kind of compensation for deleting the limitation "*said region is closed*".

- 3.2 The appellant argued that decision G 1/99 (loc. cit) was not applicable in the present case, while the non-appealing patent proprietor in the case that led to the referral was not adversely affected by the decision of the opposition division and did not have the possibility to file an appeal, whereas in the present case the respondent did have that possibility, and could have appealed.

This argument cannot be accepted for the following reasons. The question referred to the Enlarged Board of Appeal in case G 1/99 (loc. cit) was "*Must an amended claim which would put the opponent and sole appellant in a worse situation than if he had not appealed - e.g. by deleting a limiting feature of the claim - be rejected?*". There is nothing in said question, nor in the Reasons or Order of G 1/99 (loc. cit), from which it can be construed that a distinction must be made between the case where the non-appealing patent proprietor was not adversely affected by the decision of the opposition division, and the case where the non-appealing patent proprietor was. Secondly, it would not be equitable, if an exception to the principle of *reformatio in peius* in circumstances where

the patent as maintained in amended form would otherwise had to be revoked as a direct consequence of an inadmissible amendment held allowable by the Opposition Division, was denied to a non-appealing patent proprietor who could have appealed but decided not to do so. If such a distinction were made, a patent proprietor, whose patent was maintained in amended form by the Opposition Division on the basis of a lower ranking request than the main request, would be forced to file a pre-emptive appeal against said decision just in case the opponent might appeal and the Board in the ensuing appeal proceedings were to find an amendment held allowable by the Opposition Division to be inadmissible. Moreover, such a course of action would be problematic if the patent proprietor should not be interested in defending its patent on the basis of a higher ranking request than that held allowable by the Opposition Division: if the request held allowable by the Opposition Division were to be the main request in the appeal proceedings, arguably the patent proprietor would not be adversely affected by the decision of the Opposition Division, and the appeal might be found to be inadmissible (cf. Article 107 and Rule 101 EPC).

The appellant further argued that the Enlarged Board of Appeal had stated (see decision G 1/99, loc. cit, Reasons point 12, last sentence): "*However, in particular if the patent cannot be maintained for reasons which were not raised at the first instance, the non-appealing proprietor deserves protection for reasons of equity*" (emphasis added). In the present case however, objections to the contentious feature "said region is closed" had already been raised during the opposition proceedings. Since the respondent had refrained from filing an appeal as a security measure, and had filed claims not containing the

feature "said region is closed" at a late stage in the appeal proceedings, it was no longer equitable to make an exception to the principle of *reformatio in peius* and to put the appellant in a worse situation than if it had not appealed.

However, these arguments cannot be accepted for substantially the same reasons as given above. The order of decision G 1/99 (*loc. cit*) allows the non-appealing patent proprietor to file requests in order to overcome a fatal deficiency in circumstances as specified in that decision, irrespective of whether the amendment held allowable by the Opposition Division was objected to by the opponent(s) at first instance or not. Since the Board has admitted the auxiliary request into the appeal proceedings for the reasons given in point 2 above, and thus implicitly rejected the appellant's argument that the auxiliary request, in particular the deletion of the limitation "said region is closed", was late-filed, there is no scope for the Board to deny the respondent the possibility to file amendments as foreseen in decision G 1/99 (*loc. cit*), which decision pays due regard to the principle of equity (see point 13 of the Reasons).

4. *Admissibility of the amendments, Articles 84 and 123(2) EPC*

Claim 1 of the auxiliary request differs from claim 1 as granted - apart from the deletion of reference numerals present in the embodiment shown in Figures 3 and 4 which no longer falls under the scope of the claimed invention - in that the following features have been added:

- (i) said stroke adjustment assembly (18) being disposed on said side of said pump body independent of said control unit (14);
- (ii) said mounting means comprising an engagement recess (50) in the control unit and a rectangular mounting base (48) formed by molding together with a synthetic resin frame (32) of the pump body on the top of the pump body, said engagement recess (50) of the control unit is fitted on the rectangular mounting base (48) for mounting the control unit (14) on the pump body, whereby the mounting is completed by inserting a mounting bolt (52) as securing means through a bolt insertion hole (54) with the mounting base (48) held engaged and screwing the bolt (52) into a bolt reception hole (56) formed in the mounting base (48)
- (iii) [terminal means (12)] having a pair of coil tabs (58) provided on the opposite sides of the bolt hole 56 and a grounding tab (60), said tabs projecting from said outer surface of said pump body insertable into receptacles provided in said control unit.

Feature (i) provides for the control unit 14 and the stroke adjustment assembly 18 to be mounted and dismounted one at a time. A basis for this feature is the passage in column 3, lines 7 to 33, and Figure 1 of the application as filed (published version).

Feature (ii) is disclosed in column 4, lines 53 and 54, in column 6, lines 18 to 28, and in Figure 2 of the application as filed (published version).

Feature (iii) is disclosed in column 3, lines 28 and 29, in column 6, lines 29 to 32, and in Figure 2 of the application as filed (published version).

Claim 1 of the auxiliary request therefore meets the requirements of Article 123(2) EPC. Since no features of claim 1 as granted have been deleted, the requirements of Article 123(3) EPC are also met. In the judgement of the Board, the amendments to the description and to the dependent claims 2 and 3 also meet the requirements of Article 123(2) EPC. Since this was not disputed by the appellant, there is no need for further substantiation.

The wording of the feature "a rectangular mounting base (48) formed by molding together with a synthetic resin frame (32) of the pump body on the top of the pump body" provides for a mounting base to be formed on the top of the pump body by molding, and thus this is, or becomes, part of the pump body. This forming process encompasses, in the opinion of the Board, both the case that the mounting base and the pump body are molded in one piece, and the case that the mounting base is molded *in situ* onto the pump body. An unclarity or ambiguity in the expression "formed by molding together with" cannot be discerned. Claim 1 of the auxiliary request therefore meets also the requirements of Article 84 EPC.

5. *Objection of lack of inventive step, Article 56 EPC*

The prior use of the electromagnetically operated fixed displacement pump "ProMinent gamma/5" represents the closest state of the art (see documents D2, D5 and D6). The pump "ProMinent gamma/5" is equipped with a replaceable unit for both adjusting the stroke length and

controlling the stroke number (combined in a single unit as shown in document D5, where it is denoted as "Haube"), whereby various of such units are provided for various pump specifications (cf. document D6 - "Ersatzteilliste"). The pump body of "ProMinent gamma/5" and its replaceable control units thus form a modular system.

The subject-matter of claim 1 of the auxiliary request differs from the pump "ProMinent gamma/5" in the features (i) to (iii) reiterated in point 4 above.

In the pump according to claim 1 of the auxiliary request the control unit 14 with the stroke number control means can be replaced independently of the stroke adjustment assembly 18, cf. feature (i), thus providing a greater modularity than the pump "ProMinent gamma/5", where only the combined unit is replaceable.

The appellant has argued that documents D20 and D21, which are cited in column 1, line 12 to column 2, line 25 and in column 4, lines 48 to 51, of the patent in suit, disclosed that the control unit for stroke number control and the stroke adjustment assembly could be combined in one single unit (cover or wall 3, see document D20, column 4, lines 53 to 58, column 6, line 65 to column 7, line 6, column 7, lines 21 to 25, and Figure 1), or in two separate units (see document D21, column 3, lines 1 to 3 and 20 to 24, and Figure 1).

However, neither of documents D20 and D21 discloses a modular pump system. In the judgement of the Board the person skilled in the art, starting from the pump "ProMinent gamma/5" had no incentive on the basis of his or her technical knowledge, or on the basis of documents

D20 and D21, to replace the single unit ("Haube") by two separate units.

Features (ii) and (iii) concern a specific, detailed embodiment of a control unit 14 with the stroke number control means and the way it is mounted on the pump body. None of the documents cited by the appellant suggests or hints at this specific solution of mounting a replaceable control unit 14 on a pump body by a single mounting bolt, whereby an engagement recess of the control unit and a rectangular mounting base formed on the pump body together provide a form-fit mounting.

It follows from the above that the person skilled in the art, starting from the electromagnetically operated fixed displacement pump "ProMinent gamma/5", would not have arrived at the subject-matter of claim 1 of the auxiliary request in an obvious manner.

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

The subject-matter of claims 2 and 3 which are appendant to claim 1 similarly involve an inventive step.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside except as to costs.

2. The case is remitted to the department of first instance with the order to maintain the patent on the basis of the following documents:
 - claims 1 to 3 filed as auxiliary request during oral proceedings;

 - description, columns 1 to 7 filed during oral proceedings; and

 - figures 1 to 4 as granted.

The Registrar:

The Chairman:

D. Meyfarth

W. Zellhuber