

Internal distribution code:

- (A) [] Publication in OJ
(B) [] To Chairmen and Members
(C) [X] To Chairmen
(D) [] No distribution

D E C I S I O N
of 12 March 2002

Case Number: T 0010/00 - 3.5.1
Application Number: 93101344.5
Publication Number: 0558921
IPC: G05D 13/62, H02P 5/52,
F04C 15/04, F04C 18/14,
F04B 37/14

Language of the proceedings: EN

Title of invention:
Synchronous rotating apparatus of plurality of shafts

Patentee:
MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.

Opponent:
Halberg Maschinenbau GmbH

Headword:
Rotating apparatus/MATSUSHITA

Relevant legal provisions:
EPC Art. 52(1), 54(3), 56, 84, 112(1)(a)

Keyword:
"Novelty - second auxiliary request (yes)"
"Inventive step - second auxiliary request (yes)"
"Appeal admissible (yes)"
"Request for referral of a point of law (not allowed)"

Decisions cited:
T 0220/83

Catchword:
-



**Europäisches
Patentamt**

**European
Patent Office**

**Office européen
des brevets**

Beschwerdekammern

Boards of Appeal

Chambres de recours

Case Number: T 0010/00 - 3.5.1

D E C I S I O N
of the Technical Board of Appeal 3.5.1
of 12 March 2002

Appellant: Halberg Maschinenbau GmbH
(Opponent) Halbergstraße 1
D-67061 Ludwigshafen (DE)

Representative: Glawe, Delfs, Moll & Partner
Patentanwälte
Rothenbaumchaussee 58
D-20148 Hamburg (DE)

Respondent: MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.
(Proprietor of the patent) 1006, Oaza-Kadoma
Kadoma-shi,
Osaka 571-8501 (JP)

Representative: Eisenführ, Speiser & Partner
Martinistrasse 24
D-28195 Bremen (DE)

Decision under appeal: Interlocutory decision of the Opposition Division
of the European Patent Office posted 8 November
1999 concerning maintenance of European patent
No. 0 558 921 in amended form.

Composition of the Board:

Chairman: S. V. Steinbrener
Members: R. Randes
P. Muehlens

Summary of facts and submissions

- I. The Appellant (Opponent) lodged an appeal against the interlocutory decision of the Opposition Division finding the patent in amended form to meet the requirements of the Convention (Article 106(3) EPC).

Amended claim 1 considered allowable by the first instance reads as follows (for reasons explained later on in this decision the Board has indicated words which were added to the claim, in relation to granted claim 1, in bold and the word which is deleted in brackets):

"A synchronous rotating apparatus for synchronously rotating a plurality of rotary shafts (200, 202) independently driven by corresponding driving devices (30,32) comprising:

a mechanical regulating member (500, 502) arranged on the plurality of rotary shafts, for maintaining relative rotating positions of the plurality of rotary shafts within a predetermined angular difference ([~~θ~~] θ_0);

a rotation velocity and **partial** phase-detecting member (40, 42, 401, 402, 404, 405, 414), arranged on each rotary shaft, for detecting rotation velocities of the rotary shafts and **partial** phases (θ_a , θ_b) within the regulated angular difference ([~~θ~~] θ_0) kept by the mechanical regulating member; and

a driving control device (399) for controlling the driving devices of the rotary shafts to synchronously rotate the rotary shafts based on a [phase] difference **of the partial phases** (θ_a , θ_b) detected by the rotation velocity and **partial** phase-detecting members."

II. During opposition proceedings the Opponent requested that the contested patent be revoked in its entirety on the grounds of lack of novelty or of inventive step (Article 100(a) in combination with Articles 54 and 56 EPC) having regard to the following documents:

D1: EP-A-0 472 933

D2: GB-A-2 123 089

D3: Patent Abstracts of Japan, vol.11, no. 36 (E-477),
3 February 1987 & JP-A-61-203 688

III. The Opposition Division held that claim 1 of the main request (claim 1 as granted) lacked novelty over document D1 (Article 54(3) EPC), but held that the grounds for opposition mentioned in Article 100(a) did not prejudice the maintenance of the patent as amended, since the restriction of the claim to **partial phase** measurements, as opposed to absolute phase measurements, and the claiming of the **difference** between **the partial angles** of the two shafts distinguished the subject-matter of amended claim 1 from the arrangement in D1. This subject-matter also involved an inventive step over the prior art disclosed in D2 and D3.

IV. The Appellant requested that the decision be set aside and the patent revoked. An auxiliary request for oral proceedings was also made.

In the statement of the grounds of appeal the Appellant (see point I of the grounds) agreed with the Opposition Division in that granted claim 1 was not novel having regard to the teaching of D1. With regard to amended claim 1 as considered allowable by the Opposition Division, the Appellant (see point II of the grounds)

expressed the opinion that the claim was not clear, since the term "partial phase" was not unambiguous. Consequently the subject-matter of claim 1 as maintained did not appear to be new over document D1. The Appellant also (see point III of the grounds) filed two new documents:

D4: Patent Abstracts of Japan, Publication No. 01 063 689 A, application No. 62 218 939, and the German translation of the corresponding published application 64-63689

D5: Serie ROD 400 Inkrementala Standard Pulsgivare, Dr. Johannes Heidenhahn GmbH, June 1986, pages 3 to 38 and pages 16 and 17 (partly) in English translation.

The Appellant argued that the subject-matter of granted claim 1 was not new over D4. Moreover, he expressed the opinion that, were the Respondent to restrict the claim to embodiments identifying slits as shown in the embodiments of the patent specification, then document D5 disclosed all the details necessary to show how such slits could be made up to arrive at the angle measurement arrangement disclosed in the present patent specification.

V. In response to the grounds of appeal the Respondent requested that the appeal be rejected as inadmissible according to Rule 65(1) in conjunction with Article 108 EPC. In case the Board came to the conclusion that the appeal was admissible the appeal was to be dismissed as unfounded. The Respondent moreover requested oral proceedings.

The Respondent argued as follows:

The first part of the grounds of appeal (see point I of the grounds) was concerned with claim 1 of the patent specification as granted. Therefore this part of the Appellant's reasoning concerned something not forming part of the present appeal procedure, since the granted claim was not maintained by the Opposition Division.

The second part of the grounds of appeal (see point II of the grounds) related to the question of whether amended claim 1 fulfilled the requirements of Article 84 EPC. Article 84 was not however a ground of opposition. It was true that there was a statement in this part that claim 1 as maintained was not new in view of the expression "partial phase" having regard to D1. However there were no quotations from the document proving the allegation. Thus the appeal did not meet the requirements that the Board of Appeal and the Patentee should be able to understand immediately why the decision was alleged to be incorrect and on what facts the Appellant based his arguments (see for example T 220/83, OJ EPO 1986, 249).

The third part of the appeal (see point III of the grounds) concerned two new, late filed, documents. It was alleged therein that document D4 anticipated claim 1 as granted. However, there was no discussion about the relevance of these documents in relation to claim 1 as maintained.

Thus the appeal was not sufficiently substantiated, as required by Article 108, third sentence, EPC and also not as required by the case law of the boards of appeal. The appeal was therefore to be rejected as inadmissible.

The Respondent argued that claim 1 as maintained by the Opposition Division was clear and concise and moreover that its subject-matter was new in view of the documents D1 and D4. D5 only disclosed specific features of the dependent claims and could not destroy the novelty of the independent valid claims.

VI. After a letter by the Appellant contesting the Respondent's allegation that the appeal was not admissible the Board issued a summons to oral proceedings. In an annex to the summons the Board expressed the provisional opinion that the appeal appeared to be admissible and that the meaning of the expression "partial phase" used in claim 1 appeared to be understandable, having regard to the description, although it apparently was a new term coined by the Respondent.

Both parties replied to the Board's annexed communication before the oral proceedings.

The Appellant explained that the late filed document D4, referred to in the grounds of appeal and disclosing a similar device to that disclosed in D1, had been filed as a precaution in case the Board did not consider D1 to be novelty destroying with regard to Article 54(3) EPC. D4 had been published about three years before the priority date of the present patent.

The Respondent pointed out that there was no discussion at all in the statement of the grounds of appeal relating to the two difference features with respect to D1. Moreover it was pointed out that only the novelty of claim 1 as maintained had been discussed in the grounds of appeal.

VII. Oral proceedings were held before the Board on 12 March 2002. The Appellant requested that the decision under appeal be set aside and that the patent be revoked, or, as an auxiliary request, that the case be referred to the Enlarged Board of Appeal to decide a point of law. The suggested point of law reads as follows:

"Can a procedure be considered as hint for an inventive activity in which out of two known measurement procedures one of them is chosen, if concerning the other procedure it is only claimed by the inventor/patent owner without any proof and without any hints in the state of the art that this latter procedure is the usually adopted one and obvious one in the respective field."

The Respondent requested that the appeal be rejected as inadmissible (main request) or dismissed (first auxiliary request), or, as a second auxiliary request, that the patent be maintained in amended form on the basis of the following documents:

claims: 1 and 5 as filed in the oral
 proceedings,
 2 to 4 as maintained in the appealed
 decision,

description: page 4 as filed in the oral proceedings,
 pages 2, 3 and 5 to 10 as maintained in
 the appealed decision,

drawings: 1 to 13 as granted.

Claim 1 of the second auxiliary request differs from claim 1 of the first auxiliary request (which is the same as claim 1 as considered allowable by the Opposition Division; see point I above) by the following addition, to be inserted at the end of the

penultimate paragraph of claim 1 of the first auxiliary request, that is after "...kept by the mechanical regulating member". It should read: **"wherein the partial phases are detected by measuring the phase position of the shafts (200, 202) within the regulated angular difference (Θ_0)"**.

Claim 5 of the second auxiliary request was worded in conformity with claim 1 and reads as follows:

"The combination of a synchronous rotating apparatus according to any preceding claim with a fluid rotary apparatus,

(a) the fluid rotary apparatus comprising

a plurality of rotors (60,62) accommodated in a housing (1) to synchronously rotate them,

bearings (26,27, 24, 25) for supporting rotation of the rotors,

a suction port (10) and a discharge port (12) of fluid formed in the housing, and motors (30, 32) for rotating and driving the plurality of rotors independently;

(b) the synchronous rotating apparatus comprising

a mechanical regulating member (500, 502), coaxially arranged on the rotors, for maintaining relative rotating positions of the rotors within a predetermined angular difference (Θ_0),

a rotation velocity and partial phase-detecting member (40, 42, 401, 402, 404, 405, 414), arranged on each rotor for detecting rotation velocities of the rotors and partial phases (Θ_a, Θ_b) within the regulated angular difference (Θ_0) kept by the mechanical regulating member wherein the partial phases are detected by measuring the phase position of the shafts within the regulated angular difference, and a driving control device (399) for controlling the motors of the rotors to synchronously rotate the rotors based on a difference of the partial phases (Θ_a, Θ_b) detected by the rotation velocity and phase-detecting members; and

- (c) whereby the fluid is sucked and discharged by utilizing change of a volume of a space defined by the rotors and the housing through synchronous control of the rotation of the motors by the driving control device."

- VII. 1. Regarding novelty and inventive step, the Appellant's argumentation during the oral proceedings can be summarized as follows:

The novelty of claim 1 of both the first and second requests was destroyed by both of documents D1 and D4. The Respondent had apparently also accepted that the granted claim was not novel over D1 as stated by the Opposition Division, since the Respondent had not appealed against the decision of the Opposition Division. The only amendment to claim 1 as rejected by the Opposition Division was the insertion of the word "partial" before terms such as "phase" and "phase-detecting member", so that expressions like "partial phase" and "partial phase-detecting member" had been created (see point I above, claim 1). However, these amendments

did not result in a restriction of the claim with respect to the granted claim rejected by the Opposition Division. These amendments did not contain any information, since it was not clear what was meant by the expression "partial phase". As explained by the Appellant in the statement of grounds of appeal, the description of the patent specification was so unclear and contradictory that it was not possible to see any difference between the measurements of phase position and the control of the rotary shafts made according to the patent with the aid of "partial phase detecting members" and the measurements and the control of the respective device made according to the teachings of D1 and D4.

If the term "partial phase" was to be so understood that it should be possible to establish the position within a certain allowable angle range, then this was known from both of the cited documents D1 and D4. This was also known if the expressions were understood as meaning that the "partial phases" were measured at both of the rotating shafts and that the difference of these partial phases was used for synchronising the shafts. In fact, in neither of the documents D1 or D4 was it stated that the "absolute phases" of the rotary shafts were detected. On the contrary, it appeared to be self-evident for the skilled man to interpret the teaching of both documents so that only the phase position within the range of the angle which was limited by the mechanical regulating member was measured. This interpretation of the documents D1 and D4 must be allowable if the Board, like the Opposition Division, having regard to the very unclear description of the patent specification concerning the measurement of the "partial phases", accepted

the Respondent's interpretation of this term. In both the patent specification and the cited documents disclosing the closest prior art there was room for speculation.

Also the fact that the patent specification disclosed that the slits of the phase detecting member were arranged around the whole circumference of a rotating plate in the same manner as was disclosed in D1 appeared to indicate that the phases, "absolute" or "partial", were detected and used in the same way. In any case it was self-evident for a skilled person that the position of the shaft had to be established within the angle range given by the mechanical regulating member and that therefore it was not necessary to measure the absolute rotation angles of the rotating shafts.

Moreover D4 only discussed how to measure the differences in the phase positions; nowhere was it explained that it would be necessary to detect the absolute phases of the rotating shafts within 360°. In D4 it was stated (page 7 of the German translation, lines 7 to 14) that the control circuit 5 established the differences of the rotational phases and the velocities of the rotary shafts with the aid of the results from the phase detecting means of the two shafts (See Figure 1: 18A, 3A and 18B, 3B). Thus the difference between the two phases within the limits of the mechanical regulating member (in D4 the gears 23A and 23B, Figure 6) was important and not the absolute rotational angle.

The Appellant was therefore of the opinion that the subject-matter of claim 1 of both auxiliary requests was not novel, or at least it did not show an inventive step.

Also, having regard to D5 disclosing a phase detecting means of the type disclosed in the patent specification, it was apparent that, were the Respondent to try to add detailed features about the detecting means to claim 1, then the subject-matter of such a claim would be obvious to a skilled person. D5 disclosed a fixed plate and a rotating plate of a detecting means that could be used for detecting "partial phases", as proposed by the patent description.

Since the subject-matter of claim 5 related to a combination of a known fluid rotary apparatus and a synchronous rotating apparatus containing the claimed rotating apparatus according to claim 1, it was apparent that also this combination was not novel, or at least obvious to a skilled person.

If the Board nevertheless came to the conclusion that the subject-matter of claim 1 was inventive then the Appellant requested that a point of law was referred to the Enlarged Board of Appeal (see point VII above).

2. The Respondent contested the argumentation of the Appellant, the Respondent's interpretation of the cited documents being contrary to that of the Appellant on almost all points. According to the Respondent, claim 1 of the first auxiliary request was quite clear and this interpretation was also supported by the description of the patent specification. Also documents D1 and D4 did not contain the slightest hint that the detection or

measurement of the rotating positions of shafts could be performed with the aid of "partial phases", i.e. phases which were independently created within an angular range, limited by a mechanical regulating member, as was the case according to the patent. Instead, these documents used the normal method of measuring the "absolute" rotational angle. D1 made clear (column 6, lines 30 to 37) that "the deviation between the target value and the output value" was equal to the "number of rotations and angle rotation". The deviation from each of the shafts 202 and 203, Figure 1A, was said to be calculated by a phase difference counter. In D4 (see translation, page 4, first paragraph) it was stated that the rotational angle or the rotational phase difference was established by a detecting arrangement having angle sensors positioned on the two shafts of the fluid machine. Figure 3 of D4 showed that the phase detecting circuits 3A and 3B received the "absolute" values of the rotational angles of the shafts from sensor means 18A and 18B. Document D5 disclosed a detecting arrangement which could be used for measuring rotational angles, but contained no hint that one could detect "partial phases" in the sense of invention.

Thus it appeared that the invention according to the first auxiliary request was new and was not obvious, since there were no hints in the prior art that positions of rotary shafts could be detected in the manner set out in the claim.

However in order to make the term "partial phase" still clearer the term has been identified exhaustively by the additional phrase in both of the independent claim 1 and 5 of the second auxiliary request.

VIII. At the end of the oral proceedings the Chairman of the Board announced the decision.

Reasons for the decision

1. The opposition to the patent in suit was based on the grounds of lack of novelty and lack of inventive step. In the first part of the grounds of appeal the Appellant points out that claim 1 **as granted** was considered not to be novel by the Opposition Division. In the second part the Appellant argues that the subject-matter of claim 1 **as maintained** is not distinguished from that of the claim **as granted** (and rejected by the Opposition Division - see point I above) and that the subject-matter of claim 1 as maintained must therefore also lack novelty. In this context the Appellant refers to his general understanding of Document D1 (in particular Figure 3 and the corresponding text) mentioned in the grounds of appeal. From this argumentation the Board understands that in the opinion of the Appellant the conclusion by the Opposition Division that the subject-matter of **claim 1** (and 5) as maintained **involved an inventive step** was wrong, since in the Appellant's opinion **it was not even new**.

It is true that the Appellant in the grounds of appeal, in addition to the argumentation as to lack of novelty, has not directly argued along the lines of lack of inventive step. However for the issue of admissibility of an appeal it does not matter whether or not all the findings of the appealed decision are addressed by the appellant. It suffices if comprehensible reasons are given to show that at least one finding adversely affecting the appellant was incorrect.

Moreover, also the aspect of inventive step appears to be inherent in the argumentation of the grounds of appeal. In particular, it can be understood that document D4 has been introduced into the proceedings in case the Board did not conclude that the invention lacked novelty (Article 54(3) EPC) in view of D1 (see point VI above). It is therefore apparent that the Appellant means that **D4 could be used against inventive step** in such a case. Although the argumentation in the second part of the grounds of appeal (part II, the two last paragraphs on page 2) is related to clarity and novelty, it nevertheless in connection with the third part (part III, page 3) also hints at the question of inventive step question in that, in the arrangement described in D1 or D4, it is in the opinion of the Appellant **self-evident** for a skilled man to measure the position of the shaft within the angle range which is limited by the mechanical regulating member (and thus not the absolute angle). By mentioning D4 the appellant apparently meant that, were the Board to see a difference between the measurement of "partial phases" according to the invention on one hand and the teaching of D1 on the other, then in any case such a measurement would be obvious to a skilled person in the light of the teaching of D4.

Also the introduction of the additional document D5 as a precaution in case of further amendments to claim 1 before the Board makes clear that inventive step also has to be considered as a ground in the appeal proceedings, should the Board find that the subject-matter of claim 1 (and 5) as maintained is novel.

The Board therefore does not consider that the reasoning of the Appellant was insufficient, as suggested by the Respondent. The Board could immediately understand from the statement of grounds of appeal why the decision was alleged to be incorrect.

Moreover the Board is of the opinion that, having regard to the nature of the appealed decision (and taking into account the references cited, the patent specification, the wording of the rejected as well as the maintained claims), the documents in the grounds of appeal are sufficiently analysed.

Thus the appeal complies with the provisions mentioned in Rule 65 EPC and is therefore admissible.

2. As was already stated in the annex to the summons (see point VI above), the Board is in principle of the opinion that the description of the patent specification could be so understood as proposed by the Respondent. Having regard to the teaching of the whole patent specification, the Board understands that the arrangement of the invention is so designed that during the rotation of the shafts it is possible to detect, within a predetermined angle (which might be periodically repeated around the shaft - Figure 1, periodic angle Θ) corresponding to the mechanically predetermined angular difference (limited by the gears), the difference in phase (angular difference) between the shafts (see Figure 9). In this respect the Board notes that in column 11, lines 37 to 40, in the description it has been stated that, instead of the arrangements producing partial phases as shown in Figure 5 of the patent, "any arbitrary means is employable so long as it can detect the phase within a predetermined angle range".

Turning to the introductory part of the patent description (column 6, lines 15 to 43 and column 4, lines 30 to 46), which provides the technical background to the invention (the technical problem), it appears to be clear why such a detection/control system was developed. The Appellant has however expressed the opinion that the introductory part of the patent is not

clear on this issue and has argued that the expressions "nine times or more around the circumference" (column 6, lines 22 to 23) or "three times around the circumference around the rotating plate member" (column 6, lines 36 to 37) do not mean nine or three concentric circles of slits in the radial direction. It appears however that the skilled person, having regard to the content of the whole patent specification, would understand these passages as meaning three, or nine, circles of slits in the radial direction. In particular, it is stated at column 6, lines 22 to 28, that

"the detecting slits should be formed nine times or more around the circumference. With the width of the detecting slit and the interval between the inner and outer peripheries thereof taken into consideration, the outer diameter of the rotating plate member becomes considerably large".

The expression "width" mentioned in the quoted passage apparently relates to the "width" in the radial direction (cf. "inner and outer peripheries"). From the first phrase of the quoted passage which states that the slits are formed "nine times or more around the circumference" it appears that many concentric rings of slits are present on the conventional rotating plate. Because of the many concentric rings of slits and the extension of the slits in the radial direction the outer diameter of the rotating plate must be rather large, giving rise to problems at high speeds because of centrifugal forces. This interpretation is supported by the description of the patent concerning the specific embodiment (corresponding to Figures 1 to 3); see column 8, line 48 to column 9, line 12. In this passage the term "length" concerning the slits 414, 422

and 424 always relates to the circumferential direction, while the term "width" relates to the radial direction ("diametrical direction").

3. The Board understands the expression "detecting partial phases within the regulated angular difference" in claim 1 of the second auxiliary request to be intended to express that the detection is performed with the aid of detection signals (phases) developed within a rotation angle corresponding to the angle maintained by the "mechanical regulating member". Such detection can of course be repeated periodically around the shaft. Thus only the angular difference between the positions of the shafts is measured within the angle limited by the mechanical regulating member, without detecting the "absolute rotation angle" of the shafts. It appears that this idea is not hinted at in the cited prior art documents.

4. However the Board, having regard to the wording of claim 1 of the first auxiliary request, is of the opinion that it is not possible to identify the term "partial-phase" in the sense intended by the Respondent. The Board takes the view, like the Appellant, that the expression "partial phase", coined by the Applicant of the present patent application, does not sufficiently restrict the claim to the subject-matter intended to be claimed. Thus the Board agrees that the wording of claim 1 of the first auxiliary request can, for example, be so interpreted that the term "partial phases" merely relates to shaft positions (and not to a specific detection or measurement method) which, because of the mechanical regulating member, are kept within a certain angular deviation range, and that the difference between the "absolute" angular shaft positions is detected and used for synchronising the rotation of the shafts. Although the wording of claim 1 of the first auxiliary request

is slightly different to that of granted claim 1, rejected by the Opposition Division due to lack of novelty in view of D1, the Board finds that its substance does not differ from that of the rejected claim. Therefore also claim 1 of the first auxiliary request can be read onto document D1 (see D1, columns 5 and 6 - cf. point 3 of the appealed decision concerning the rejected claim) and its subject-matter is not novel (Article 54(3) EPC).

5. In claim 1 of the second auxiliary request, it is now specified that the partial phases are detected **by measuring the phase position** of the shafts **within the regulated angular difference**, i.e. that the detection of angular position is performed within a very small angular range, the necessary signals for detecting position are entirely created within that angle range determined by the mechanical regulating member and moreover the phases of the corresponding signals are also derived within that angle range.

Thus the subject-matter of this claim is clearly distinguished from the arrangements disclosed in document D1, in which detection of shaft positions is performed by measurement of absolute angles.

It is true that, as has been pointed out by the Appellant, Figure 4 of D1 shows only three radially positioned slits in the fixed slit plate 293 of the detecting arrangement, this design being said by the Appellant to point towards a detection arrangement similar or identical to that of the invention. However the Board notes that this fixed plate 293 is concealed by the rotating plate 291 in the figure, so it might be that additional slits in the radial direction are hidden behind the rotating plate 291. Moreover this figure is merely a schematic representation of the arrangement, the document failing to give any hint at

the number of slits in the radial direction in the rotating plate. Also, as pointed out during the oral proceedings, there is no indication that an angle other than the absolute rotating angle is detected.

Also D2 does not disclose any measurements of partial phases in the sense of the invention. It only shows that controller 50 can correct the speeds of two motors of a gear pump having gear wheels meshed with each other. Only a single speed indicator for one of the motors in the form of a box 66 is indicated (Figure 3).

As pointed out by the Opposition Division, document D3 discloses no mechanical regulating means, so that the angle encoders of the rotors must obviously detect a whole revolution of the rotors.

As to the teaching of D4 the Board agrees with the Respondent that also this document does not hint at the detection of shaft positions as proposed by the invention. D4 does not disclose the details of the sensor arrangement (18A, 18B). Also there is no hint that the electronic detection arrangement (3A, 3B) might receive partial phase values from the sensor arrangement.

Document D5 does not relate to a synchronous rotating apparatus for synchronously rotating a plurality of rotating shafts.

The Appellant has stated (see point VII above, referral of a point of law) that it is only the Respondent who is alleging that the partial phase measurement in the sense of the invention is not known in contrast to the absolute angle measurement and that there is no evidence for this allegation. The Board however is of

the opinion that the burden of proof in such a case is borne by the Opponent. Thus it is up to the Appellant (as Opponent) to put forward evidence that proves his argumentation, and such evidence has not been produced.

Thus the subject-matter of claim 1 of the second auxiliary request is new.

6. The objective problem to be solved can be seen as that proposed in the patent specification (see point 2 above), i. e. to make the rotating plate in the detecting arrangement smaller in order to reduce the centrifugal forces acting upon it during rotation, so that the plate is not deformed or broken. In the cited documents this problem is not mentioned at all.

The Board is of the opinion that the solution to this problem according to claim 1 of the second auxiliary request is not obvious to the skilled person, having regard to the pre-published documents cited. As has been shown above, document D4 contains no hint in the direction of the invention. Apparently the present inventors have realised for the first time that in an application, where the differences in position between a plurality of shafts have to be established, it is sufficient to create and measure signals within a very small angle range and still maintain the necessary accuracy of the measurement. From this idea it follows that, instead of, for example, nine circles of detecting slits, only three circles of slits are necessary in the rotating plate to maintain the necessary resolution, thus making it possible to considerably reduce the diameter of the rotating plate.

Thus the Board concludes that the subject-matter of claim 1 of the second auxiliary request involves an inventive step, Articles 52(1) and 56 EPC.

The dependent claims 2 to 4 set out specific embodiments of the invention and are thus also allowable.

The subject-matter of independent claim 5, relating to the combination of a synchronous rotating apparatus according to any preceding claim with a fluid rotary apparatus, therefore also involves an inventive step, Articles 52(1) and 56 EPC.

7. The Board decides not to allow the Appellant's request to refer the case to the Enlarged Board of Appeal to decide on a point of law (see point VII above).

According to Article 112(1)(a) EPC, "important points of law" ("Rechtsfragen von grundsätzlichen Bedeutung"; "questions de droit d'importance fondamentale") shall be referred by the Boards of Appeal to the Enlarged Board in order to ensure uniform application of the law. Questions which normally arise during proceedings before the Board and merely relate to the interpretation of the technical content of the patent application, the patent specification or the prior art documents, or are concerned with the assessment of novelty or inventive step, cannot normally be considered to warrant the referral of a question of law to the Enlarged Board of Appeal.

In the present case the Board had to decide whether the way of performing measurements disclosed in the patent was anticipated or rendered obvious by another (conventional) way of doing it. Such a decision merely relates to normal considerations regarding novelty and inventive step without raising a fundamental legal question.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the first instance with the order to maintain the patent in amended form in the following version:

claims: 1 and 5 as filed in the oral
 proceedings,
 2 to 4 as maintained in the appealed
 decision,

description: page 4 as filed in the oral proceedings,
 pages 2, 3, 5 to 10 as maintained in the
 appealed decision,

drawings: Figures 1 to 13 as granted.

The Registrar:

The Chairman:

M. Kiehl

S. V. Steinbrener