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Datasheet for the decision of 12 November 2013

Case Number: T 0428/10 - 3.5.02

Application Number: 00100268.2

Publication Number: 1026819

IPC: H02P 5/50, G05D 13/62

Language of the proceedings: EN

Title of invention:
Control method for determining a synchronous position and a rotary machine capable of synchronous driving thereby

Patent Proprietor:
Kabushiki Kaisha Tokyo Kikai Seisakusho

Opponent:
manroland web systems GmbH

Headword:
-

Relevant legal provisions:
EPC Art. 56
EPC Art. 108

Keyword:
"Admissibility of the appeal - yes"
"Inventive step - yes"

Decisions cited:
-

Catchword:
-

Case Number: T 0428/10 - 3.5.02

D E C I S I O N
of the Technical Board of Appeal 3.5.02
of 12 November 2013

Appellant: (Opponent)	manroland web systems GmbH Intellectual Property Alois-Senefelder-Allee 1 D-86153 Augsburg (DE)
Representative:	Ulrich, Thomas manroland AG Intellectual Property (IP) D-86219 Augsburg (DE)
Respondent: (Patent Proprietor)	Kabushiki Kaisha Tokyo Kikai Seisakusho 26-24, Shiba 5-chome Minato-ku Tokyo (JP)
Representative:	Klingseisen, Franz Klingseisen & Partner Postfach 10 15 61 D-80089 München (DE)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted 18 December 2009 concerning maintenance of European patent No. 1026819 in amended form.**

Composition of the Board:

Chairman: M. Ruggiu
Members: M. Rognoni
P. Mühlens

Summary of Facts and Submissions

I. The opponent (appellant) appealed against the interlocutory decision of the opposition division maintaining the European patent no. 1 026 819 in amended form on the basis of the auxiliary request filed at the oral proceedings held on 27 November 2009.

II. In the decision under appeal, the opposition division came to the conclusion that claims 1 and 2 of the main request violated the provisions of Article 123 (2) EPC. On the other hand, claims 1 and 2 of the auxiliary request involved an inventive step with respect to the following prior art:

E1: L. Rettner "Elektronik verlängert mechanische Welle", drive & control 4/98, Seiten 4 und 5.

In particular, the opposition division essentially argued in item 5.6 of the contested decision that E1 neither showed nor suggested a control loop with the particular constitution recited in claims 1 and 2. Hence, it would not be obvious for a person skilled in the art starting from E1 to arrive at the claimed subject-matter (Article 56 EPC).

III. With the statement of grounds of appeal, the appellant filed the following prior art:

E6: SIMOVERT MASTERDRIVES Motion Control, Operating Instructions, Inverter (DC-AC) Compact Type,

E7: SIMOVERT MASTERDRIVES Motion Control, Operating Instructions, Frequency Converter (AC-AC) Compact Type.

IV. In a communication dated 26 June 2013 accompanying the summons to oral proceedings, the Board noted, *inter alia*, that the appellant had not shown what features of claim 1 (or claim 2) were actually disclosed in E1, E6 or E7 and what features could be attributed to the skilled person's general knowledge.

V. In response to the Board's communication, the representative of the patent proprietor (respondent) informed the Board with letter dated 6 August 2013 that the patent proprietor would not attend the oral proceedings.

VI. With letter dated 17 October 2013, the appellant informed the Board that they would also not take part in the oral proceedings.

VII. As announced, none of the parties attended the oral proceedings which were held as scheduled on 12 November 2013.

VIII. The appellant requested that the decision under appeal be set aside and that the patent be revoked.

IX. The respondent requested that documents E6 and E7, submitted by the appellant with letter dated 27 April 2010, be not admitted into the proceedings and that the appeal be rejected as inadmissible.

X. Claim 1 of the patent as maintained by the opposition division reads as follows:

"A control method for synchronously driving a fixed rotary machine (21) and extension rotary machines that are respectively extended from and not mechanically connected to the fixed rotary machine (21), comprising the steps of:

providing reference rotational frequency and position pulse signals (35) from a first rotary encoder (11) mounted on an axis (27) of the fixed rotary machine (21);
providing feedback rotational frequency and position pulse signals (36) from a second rotary encoder (5) mechanically connected to a main electric motor (4) in each of the extension rotary machines;
inputting the reference rotational frequency and position pulse signals (35), and the feedback rotational frequency and position pulse signals (36) into a synchronous position control device (8) provided to each of the extension rotary machines;

in the synchronous position control device (8),
integrating the reference rotational frequency and position pulse signals (35) with a first integrating counter (37);
integrating the feedback rotational frequency and position pulse signals (36) with a second integrating counter (38);

calculating a position error signal (39) between integrated values of the first integrating counter (37) and ones of the second integrating counter (38);

amplifying (40) the position error signal (39) and

outputting a rotational frequency control signal obtained by adding the amplified position error signal (40) to a rotational frequency difference between the not integrated reference rotational frequency and position pulse signals (35) and the not integrated feedback rotational frequency and position pulse signals (36) to thereby control the main electric motor (4) of the own extension rotary machine for said synchronously driving."

Claim 2 of the patent as maintained by the opposition division relates to a control device comprising apparatus features which essentially correspond to the steps recited in claim 1.

XI. According to the appellant, E6 and E7 together with E1 clarified that the Siemens SIMOVERT MASTERDRIVES Motion Control represented a well defined and implemented system. In particular E6 showed at pages 7 and 8 an amplifier for amplifying signals. Pages 8-15 to 8-21 showed concrete differential control methods.
Table 11-4 showed that a pulse encoder evaluation was carried out.
Hence, the functionality of the Siemens SIMOVERT MASTERDRIVES Motion Control corresponded to the technical features recited in claims 1 and 2 of the patent as maintained.

XII. The respondent essentially argued that the connection between E1 and E6 or E7 was not clear. Furthermore,

several technical features of the claims, such as the position instruction integrating counter 37, the position feedback integrating counter 38 and the position error pulse 39 of the synchronous position control device 8, were not shown in E6.

Reasons for the Decision

Admissibility of the appeal

1.1 In the statement of grounds of appeal dated 27 April 2010, the appellant filed two new documents and presented some factual reasons and arguments for setting aside the decision of the opposition division.

1.2 Hence, in accordance with the case law of the boards of appeal, the Board considers that the appellant has met the requirements for admissibility of the appeal set out in Article 108 and Rule 99 (2) EPC.

Admissibility of documents E6 and E7

2.1 Documents E6 and E7, which were filed with the statement of grounds of appeal, are the operating instructions of the SIMOVERT MASTERDRIVES Motion Control referred to in E1. As far as they may contribute to the understanding of the disclosure in E1, they appear to be sufficiently relevant to be admitted into the appeal proceedings.

2.2 Hence the Board has decided to admit E6 and E7 into the appeal proceedings.

Article 56 EPC

3.1 Claim 1 of the patent as maintained by the opposition division relates to a *"control method for synchronously driving a fixed rotary machine (21) and extension rotary machines that are respectively extended from and not mechanically connected to the fixed rotary machine (21)"*. The claimed method comprises the following steps:

a) providing reference rotational frequency and position pulse signals from a first rotary encoder mounted on an axis of the fixed rotary machine;

b) providing feedback rotational frequency and position pulse signals from a second rotary encoder mechanically connected to a main electric motor in each of the extension rotary machines;

c) inputting the reference rotational frequency and position pulse signals, and the feedback rotational frequency and position pulse signals into a synchronous position control device provided to each of the extension rotary machines;

d) in the synchronous position control device, integrating the reference rotational frequency and position pulse signals with a first integrating counter;

e) integrating the feedback rotational frequency and position pulse signals with a second integrating counter;

f) calculating a position error signal between integrated values of the first integrating counter and ones of the second integrating counter;

g) amplifying the position error signal and;

h) outputting a rotational frequency control signal obtained by adding the amplified position error signal to a rotational frequency difference between the not integrated reference rotational frequency and position pulse signals and the not integrated feedback rotational frequency and position pulse signals to thereby control the main electric motor of the own extension rotary machine for said synchronously driving.

3.2 As to the alleged lack of inventive step of the claimed subject-matter, the appellant has essentially submitted that the functionality of the Siemens SIMOVERT MASTERDRIVES Motion Control according to E1 corresponded to the technical features recited in claims 1 and 2 of the patent as maintained by the opposition division. In support of this argument, the appellant has referred to E6 and E7.

3.3 On the other hand, the respondent has maintained that the link between E1 and E6 or E7 was not clear and that several technical features of the claims, such as the position instruction integrating counter 37, the position feedback integrating counter 38 and the position error pulse 39 of the synchronous position control device 8, were not shown in E6.

3.4 E6 and E7 are the operating instructions of the SIMOVERT MASTERDRIVES Motion Control disclosed in E1. Even if, as alleged by the appellant, the control functions which, according to E6 or E7, could in principle be implemented by the SIMOVERT MASTERDRIVES Motion Control corresponded to the technical features recited in claims 1 and 2, the appellant has not explained why it would be obvious for a person skilled in the art, wishing to implement a control method for synchronously driving a fixed rotary machine and extension rotary machines to select the combination of steps a) to h) recited in claim 1 and, in particular, to use the corresponding control loops. Furthermore, the appellant has not shown which features of claim 1 (or claim 2) are actually disclosed in E1, E6 or E7 and which features could be attributed to the skilled person's general knowledge.

4. As the appellant has not presented any convincing arguments for setting aside the decision of the opposition division to maintain the patent in amended form, the appeal has to be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

U. Bultmann M. Ruggiu