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Datasheet for the decision of 17 October 2012

Case Number: T 1675/09 - 3.2.06

Application Number: 00917699.1

Publication Number: 1159218

IPC: B66B5/00, B66B1/34

Language of the proceedings: EN

Title of invention:
ELECTRONIC SAFETY SYSTEM FOR ELEVATORS

Patentee:
Otis Elevator Company

Opponents:
KONE Corporation
INVENTIO AG

Relevant legal provisions:
EPC 1973 Art. 54(2), 114(2)
RPBA Art. 13(1)

Keyword:
Novelty (main request, first auxiliary request) - no
Admission into the proceedings (second and third auxiliary requests) - no

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Case Number: T 1675/09 - 3.2.06

D E C I S I O N
of the Technical Board of Appeal 3.2.06
of 17 October 2012

Appellant I: (Patent Proprietor)	Otis Elevator Company Intellectual Property Dept., 10 Farm Springs Farmington, CT 06032-2568 (US)
Representative:	Hirsch, Peter Klunker Schmitt-Nilson Hirsch Patentanwälte Destouchesstrasse 68 80796 München (DE)
Appellant II: (Opponent 1)	KONE Corporation Kartanontie 1 00330 Helsinki (FI)
Representative:	Wahl, Hendrik Graf Glück Habersack Kritzenberger Wotanstrasse 64 80639 München (DE)
Appellant III: (Opponent 2)	INVENTIO AG CH-6052 Hergiswil NW (CH)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted 15 June 2009 concerning maintenance of the European Patent No. 1159218 in amended form.**

Composition of the Board:

Chairman: M. Harrison
Members: G. Kadner
K. Garnett

Summary of Facts and Submissions

I. The mention of grant of European patent No. 1 159 218, with 12 claims, on the basis of European patent application No. 00917699.1 filed on 1 March 2000 and claiming a US-priority from 4 March 1999, was published on 12 July 2006.

II. Two notices of opposition, in which revocation of the patent on the grounds of Article 100(a) EPC 1973 was requested, were filed against the granted patent.

In its interlocutory decision posted on 15 June 2009, the opposition division found that the subject-matter of claim 1 according to the main request lacked novelty when compared with the disclosure of D15. However, account being taken of the amendments made by the patent proprietor during the opposition proceedings, the patent and the invention to which it related according to the first auxiliary request were held to meet the requirements of the EPC. *Inter alia* the following prior art was cited:

D2: US-A-4 898 263
D15: DE-A-40 32 033

Amended claim 1 of the patent as found allowable by the opposition division reads as follows (amendments with respect to claim 1 as granted underlined):

"An elevator safety system comprising:
an electronic safety controller (20) in communication over a safety bus (4) with a plurality of bus nodes (91-96), each said bus node receiving data from at least one sensor (31-33);
an elevator control unit (40) in further communication

with said electronic safety controller (20); and
a drive and brake unit (50) in even further communication with said electronic safety controller (20);
wherein said electronic safety controller (20) processes said data received from said plurality of bus nodes (91-96) and determines if an unsafe condition exists, and if so, said safety controller (20) sends an arrest signal to said drive and brake unit (50), and further sends a status signal indicating an unsafe condition to said elevator control unit (40)."

III. Notices of appeal were filed against this decision by Appellant I (patentee) on 24 August 2009, by Appellant II (opponent 01) and Appellant III (opponent 02) on 14 August 2009 and the respective appeal fees were paid on the respective same days. Grounds of appeal were filed on 12 October 2009 (Appellant II), 13 October 2009 (Appellant I) and 15 October 2009 (Appellant III).

IV. In its reply of 21 July 2010 to the opponents' submissions, the patentee provided arguments in support of its five auxiliary requests as already filed during the opposition proceedings on 14 April 2009.

V. In a communication accompanying the summons to oral proceedings the Board expressed its preliminary view that the opposition division's finding in respect of the main request appeared correct but that contrary to the opposition division's opinion, claim 1 of the first auxiliary request appeared at least to lack an inventive step. The second to fifth auxiliary requests did not seem to be admissible because the amendments made in each respective claim 1 contravened Article 123(2) EPC.

VI. With letter dated 17 September 2012 the patentee replaced its former second to fifth auxiliary requests by new auxiliary requests 2 and 3.

VII. Oral proceedings were held on 17 October 2012, during which the patentee withdrew its then second auxiliary request and filed an auxiliary request 4.

Appellant I (patentee) requested that the decision under appeal be set aside and that the patent be maintained as granted (main request), alternatively that the appeals of Appellants II and III be dismissed (first auxiliary request), alternatively that the decision under appeal be set aside and the patent be maintained on the basis of its third auxiliary request filed with the letter dated 17 September 2012 (hereafter referred to as its second auxiliary request) or its auxiliary request 4 filed during the oral proceedings (hereafter referred to as its third auxiliary request).

Appellants II and III (opponents 01 and 02) each requested that the decision under appeal be set aside and that the patent be revoked.

Claim 1 of the second auxiliary request includes the features of claim 1 of the first auxiliary request to which the features of granted claims 2 and 7 have been added (further amendments with respect to the claims as granted underlined); the third auxiliary request is a combination of granted claims 1, 2 and 7 without the amendments in claim 7 underlined below:

(Claim 2:) "... wherein said safety controller further comprises a microprocessor assembly (10_1) executing a safety program having multiple modes of operation

including inspection and maintenance, normal operations, degraded operations, and emergency operations,"

(Claim 7:) "... wherein said microprocessor assembly (10_1) further includes:
a microprocessor (11) for executing said safety program;
a read only memory (12) for storing said safety program and predetermined data;
a random access memory (14);
a battery backup unit (13); and
at least one input/output port (16) for communication with said safety bus, said elevator control unit, and said drive and brake unit;
wherein said microprocessor polls said bus nodes over said safety bus and processes said data received from said plurality of bus nodes and determines if an unsafe condition exists, and if so, said microprocessor sends an arrest signal to said drive and brake unit, and further sends a status signal to said elevator control unit."

VIII. The arguments of Appellant I can be summarized as follows:

The safety system according to claim 1 of the main request, and at least that according to the first auxiliary request, was distinguished from that disclosed in D15 in that the safety controller processed the data received from the plurality of bus nodes and only if such an unsafe condition was determined was a status signal sent to the elevator control. In D15 two main controllers 1 and 1' determined the data relevant for the safety of the system in parallel and compared them with each other to

check whether they were equal. Furthermore, the controllers 1 and 1' monitored each other, and in the event of breakdown of one of them the elevator was stopped immediately. Line 2 shown in Fig. 1 between devices 1 and 1' was only intended for monitoring of the devices by each other and for transmitting data relating to the equality of safety-relevant signals from buses 4 and 4'. No status signal, and certainly no status signal indicating an unsafe condition, was transmitted on the defined conditional basis that an unsafe condition existed. Therefore the subject-matter of claim 1 was novel with respect to D15.

The opponents' objections against the first auxiliary request under Article 123(2) EPC were first raised during the oral proceedings before the Board. Since they had not been in the proceedings before this, this was a change in the opponents' cases and should therefore not be admitted into the proceedings, particularly since the objection was also not *prima facie* prejudicial to the patent.

The second and third auxiliary requests should be admitted into the proceedings. The first time during the proceedings that Appellant I had been made aware of possible deficiencies under Article 123(2) EPC was on receipt of the Board's communication sent together with the summons to oral proceedings. Only then had the Appellant I been able to react by filing new requests. Since (so Appellant I argued) the system claimed with the preceding requests was novel and inventive, it followed that the now claimed subject-matter, which was now further restricted by features from the dependent claims, was also neither known nor made obvious by the prior art documents. In particular, the added features from claim 2 relating to a microprocessor assembly

executing a safety program and having multiple modes of operation was not known from the prior art documents.

Claim 1 according to the third auxiliary request was composed of granted claims 1, 2 and 7, other dependent claims partly being deleted. Therefore, since no formal objections could be raised, the request should be allowed into the proceedings.

IX. Appellants II and III argued that the subject-matter of claim 1 as granted was not novel over D15, as correctly assessed by the opposition division. Claim 1 according to the first auxiliary request contravened Article 123(2) EPC. The feature "indicating an unsafe condition" taken from the description (col. 4, line 5) had been isolated out of the context as disclosed there, thus resulting in an inadmissible intermediate generalization.

In any case, the safety system claimed with the first auxiliary request lacked novelty when compared with the disclosure in D15. To a skilled reader it was implicit that the last feature of the claim was also disclosed in D15. The safety controller 1' connected to the bus 4' received signals from bus nodes and determined whether an unsafe condition existed. The actual status of the system was shown on a printer 11 and a monitor 13. The signals indicating an unsafe condition were inevitably transmitted to the monitor and printer via line 2 between the controllers 1' and 1, and therefore were implicitly also sent to controller 1.

The second and third auxiliary requests should not be admitted into the proceedings since they were clearly not allowable. Claim 1 of the second auxiliary lacked clarity because it was not clear which signal "a status

signal" in the last line of the claim referred to; it could be the same signal as the preceding status signal in the claim or it could be a different signal. The description did not provide any information about that feature.

In claim 1 of the third auxiliary request the amendment made to granted claim 1 had been deleted whereby an amendment to the patentee's case had occurred. It could not reasonably be expected that the opponents could deal with a fresh case at such a late stage of the proceedings concerning subject-matter which had not previously been in the appeal proceedings.

Reasons for the Decision

1. The appeals are admissible.

2. *Main request (Article 54(2) EPC 1973)*

The opposition division held that the subject-matter of granted claim 1 lacked novelty over D15. Despite the arguments of Appellant I, the Board does not see a reason to find differently, as also indicated in its provisional opinion sent before the oral proceedings. Indeed, D15 shows two controllers 1 and 1', one of them (1') being identifiable as a safety controller (in accordance with the wording of claim 1). In this it is to be noted that claim 1 puts no further restrictions on the safety controller beyond those disclosed for controller 1' in D15.

The argument of Appellant I that the feature "said electronic safety controller processes said data received from said plurality of bus nodes and

determines if an unsafe condition exists, and if so, said safety controller sends an arrest signal to said elevator control" is novel over D15 because it implies a particular functioning of the system, is not accepted by the Board, for the following reasons.

The data line 2 (see e.g. Figure 1) between the communication processors 3 and 3' of controllers 1 and 1' respectively transmits data which can only be regarded as a status signal of the respective processor and the data it has processed. First, the term "status signal" is unspecific in that it is not limited to any particular type of status. The transfer of data (which occurs on line 2) relevant to the safety of the system, which is to be tested as regards equality of values between the processors 3 and 3' (see D15, column 2, lines 44 to 48), can thus only be understood as being a status signal according to the claim. This mutual comparison of data is being continually transferred and, since the data is disclosed explicitly as allowing mutual monitoring of the controllers 1 and 1', this data inherently includes a status signal element therein.

The argument of Appellant I that the status signal is sent only after a determination has occurred that a particular condition exists (due to the wording "and if so" in the claim), does not change the Board's conclusion on this matter, since nothing in the claim defines or implies that the status signal is of a type to be sent - only - when an unsafe condition exists. In D15, the data (inherently including a "status signal") must be sent continually in order to provide the stated redundancy (see e.g. col. 2, lines 59 to 63 and col. 3, lines 61 to 65).

Thus the features of claim 1 are inherently in the prior art system of D15. While, as the opposition division correctly concluded, there are additional features disclosed in D15, these are not excluded from the subject-matter claimed.

For these reasons the main request cannot be allowed.

3. First auxiliary request

3.1 Amendments

In claim 1 the feature "a status signal" sent to the elevator control (unit 40) is now altered to "a status signal indicating an unsafe condition" sent to the elevator control (unit 40). The basis for the amendment is the description (paragraphs [0014] to [0018]) where various examples of unsafe conditions are described. Since the opponents' objection under Article 123(2) EPC was first raised during the oral proceedings, and this amounted to a change of their case, the Board did not admit the objection into the proceedings having regard to Article 13(1) RPBA. The Board considers however that the term "unsafe condition" is to be interpreted in a broad sense because it is not clearly defined and can mean any irregular condition of the system, e.g. the failure of a door switch or failure of a whole controller, and that the arrest signal is sent to the drive and brake unit if anything within the system has gone wrong.

3.2 Novelty

3.2.1 Appellant I argued that the disclosure of D15 was not so clear and unambiguous as to put novelty of the system claimed into doubt. Line 2 between controllers

1' and 1 had only the function of providing a connection for checking the proper functioning of the controllers by each other. It was not intended for the sending of further signals and in particular not a status signal indicating an unsafe condition.

3.2.2 In view of the broad meaning of "a status signal indicating an unsafe condition", this feature is also, albeit implicitly but nevertheless clearly und unambiguously, disclosed in D15. As also mentioned with regard to the main request, in the partly redundant system, controller 1 can be regarded as a main controller whereas controller 1' can be seen as a safety controller (col. 2, lines 20 to 24). Printer 11 and monitor 13, which are directly connected to main controller 1, are part of that sub-system. Controller 1' processes data received via bus 4' and bus nodes from the security devices 5' to 8' (col. 2, lines 49 to 67). It also indicates whether main controller 1 is working properly (col. 3, lines 61 to 65). If controller 1' detects a failure of main controller 1, the engine is stopped, and the failure of main controller 1 is indicated on printer 11 and monitor 13 (col. 3, line 65 to col. 4, line 1). In any case, the failure of controller 1 causes an unsafe condition of the system at least in the sense of claim 1. The signal indicating that unsafe condition is sent to printer 11 and monitor 13 being part of the elevator control unit, even though main controller 1 is in a malfunctioning condition. Therefore the technical effect, resulting from the features defined in claim 1, is inherently also present in D15, even when the specific condition of failure of unit 1 is considered as being the unsafe condition and notwithstanding the fact that safety relevant data is, at least up until that time, continually being transferred between the processors 3

and 3'. Consequently the subject-matter of the system according to claim 1 does not meet the requirement of novelty (Article 54(2) EPC).

4. Second auxiliary request (Article 13 RBPA)

4.1 According to Article 114(2) EPC the European Patent Office may disregard facts or evidence which are not submitted in due time by the parties concerned. In Article 13(1) of the Rules of Procedure of the Boards of Appeal (RBPA) it is provided that it is within the Board's discretion to admit and consider any amendment to a party's case after it has filed its grounds of appeal or reply. The discretion shall be exercised inter alia in view of the complexity of the new subject-matter submitted, the current state of the proceedings and the need for procedural economy. According to the established case law of the Boards of Appeal a late filed request should only be admitted into the proceedings if it overcomes all deficiencies and appears *prima facie* allowable.

4.2 Claim 1 as filed one month before the oral proceedings was amended by the addition of features of granted claims 2 and 7 to claim 1 of the first auxiliary request. The patentee argued that the first auxiliary request had been allowed by the opposition division and the addition of features from the granted claims did not take the case in a different direction. The new claim was allegedly not only more restricted, but also novel and inventive when compared with the prior art.

4.3 The opponents submitted that in their replies to the patentee's appeal they had already dealt with lack of inventive step of claims 2 and 7. Moreover, the new claim was unclear not least because there was no

definition as to which signal was "a status signal" in granted claim 1 and "a status signal" in claim 7 as granted. If it was "the" same signal, there were further inconsistencies with respect to the dependent claims 3 to 6, and 9 to 12, as maintained since they primarily had been dependent on claim 2, and contradicted claim 7, which was part of a third line of the embodiments of the claimed system.

4.4 The Board concludes that this request does not overcome, even in a *prima facie* sense, the inventive step objections. This is a minimum that would be required for the request to be understood as being *prima facie* allowable. Instead, Appellant I restricted its written submissions on this request concerning novelty and inventive step to differences with respect to D15 alone. Also, it may be added that since the further inconsistencies objected to by Appellants II and III would have required discussion of new and possibly complex issues, the Board exercised its discretion not to admit the second auxiliary request into the proceedings.

5. *Third auxiliary request (Article 13 RBPA)*

5.1 Claim 1 presented during the oral proceedings was amended in that the features added to granted claim 1 of the first auxiliary request were removed and the features of granted claims 2 and 7 were added. Granted claims 9 to 12 were deleted. Appellant I argued that, since new claim 1 was a pure combination of granted claims the deficiencies of the preceding request had been overcome. However, the inconsistency between granted claim 7, which is dependent on claim 2, and the dependent claims 3 to 6 as maintained relating to a different embodiment is still present. Furthermore, the

patentee did not present convincing arguments as to why, after the deletion of the former amendments, the newly claimed subject-matter would overcome the opponents' objections in respect of inventive step with respect to granted claims 2 and 7. The Board thus exercised its discretion under Article 13(1) RPBA not to admit this request into the proceedings.

6. There being no allowable or admissible request on file for maintenance of the patent, the patent must be revoked.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The patent is revoked.

The Registrar: The Chairman:

M. H. A. Patin M. Harrison

Decision electronically authenticated