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D E C I S I O N
of 15 October 1996

Case Number: T 0767/94 - 3.2.1

Application Number: 87300700.9

Publication Number: 0235922

IPC: B60R 16/02

Language of the proceedings: EN

Title of invention:

Method of and apparatus for installing wire harness

Patentee:

Yazaki Corporation

Opponent:

Siemens AG

Headword:

-

Relevant legal provisions:

EPC Art. 123(2), 56

Keyword:

"Amendments - added subject-matter (no)"

"Inventive step (yes)"

Decisions cited:

-

Catchword:

-



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Boards of Appeal

Chambres de recours

Case Number: T 0767/94 - 3.2.1

D E C I S I O N
of the Technical Board of Appeal 3.2.1
of 15 October 1996

Appellant: Siemens AG
(Opponent) Postfach 22 16 34
D-80506 München (DE)

Representative: -

Respondent: Yazaki Corporation
(Proprietor of the patent) 4-28, Mita 1-chome
Minato-ku
Tokyo 108 (JP)

Representative: Prutton, Roger
MARKS & CLERK
Alpha Tower
Suffolk Street Queensway
Birmingham B1 1TT (GB)

Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 15 July 1994
rejecting the opposition filed against European
patent No. 0 235 922 pursuant to Article 102(2)
EPC.

Composition of the Board:

Chairman: F. A. Gumbel
Members: P. Alting van Geusau
J. H. van Moer

Summary of Facts and Submissions

- I. European patent No. 0 235 922 was granted on 25 March 1992 on the basis of the European patent application No. 87 300 700.9 filed on 28 January 1987, claiming a priority date of 18 February 1986 based on Japanese patent application No. 31910/86.

The independent claims 1 and 3 of the patent read as follows:

"1. A method of installing wiring in an automobile, comprising the steps of providing a carrier (3) for attachment to an automobile body (20) and having an engine compartment side and a passenger compartment side, mounting articles of electrical equipment (12-17) on said carrier (3) and connecting these to a first wire harness (8), said first wire harness (8) having a first connector (21) for connection to a second wire harness (27, 28) in the engine compartment (24) of the automobile and a second connector (11) for connection to at least one (15) of said articles of equipment (12-17), characterised in that said first wire harness (8) and said articles (12-17) are mounted on the passenger side of the carrier (3) and in that the carrier (3) is formed with window means (7) through which said first connector (21) connects said first wire harness (8) to said second wire harness (27, 28)."

"3. Apparatus for installing wiring in an automobile comprising a carrier (3) on which there are mounted articles of electrical equipment (12-17), and a first wiring harness (8) having connectors (11) connected to said articles (12-17) and a further connector (21) for connection to a second wire harness (27, 28) in the engine compartment (24) of the automobile, said panel

(3) having a passenger compartment side and an engine compartment side; characterised in that said first wire harness (8) and said articles are mounted on the passenger side of said carrier (3) and in that the carrier (3) is formed with window means (7) through which said further connector (21) can connect the first wire harness (8) to said second wire harness (27, 28)."

II. Notice of opposition was filed by the appellant (opponent) on 23 December 1992 on the grounds of Article 100(a) EPC. In support of an alleged lack of inventive step the opposition was supported by the documents:

D1: EP-A-0 091 618
D2: EP-A-0 108 522
D3: DE-A-3 435 566
D4: GB-A-2 136 255
D5: DE-A-3 529 660
D6: JP-U-58-5397
D7: JP-A-56-97814.

During the opposition proceedings the appellant also raised the objections that the granted claim 1 contained added subject matter (Article 123(2) EPC, respectively Article 100(c) EPC) and that the priority claimed was not valid.

III. By decision announced at oral proceedings held on 16 June 1994 and posted with written reasons on 15 July 1994, the Opposition Division rejected the opposition...

The Opposition Division held that the granted claim 1 was supported by the originally filed application documents and that the priority was validly claimed.

Since no translation was available of document D6, this document was disregarded by the Opposition Division. Furthermore, considering that the cited prior art did not disclose or suggest a wiring method or apparatus as defined in the independent claims 1 and 3, the Opposition Division was of the opinion that an inventive activity was needed to arrive at the subject-matter of these claims.

- IV. An appeal was lodged against this decision on 13 September 1994 with payment of the appeal fee on 14 September 1994.

With the notice of appeal the appellant filed a copy of JP-U-59-114 720 (D6*), being the published application document of D6, with a translation in the English language. The statement of grounds of appeal was filed on 4 November 1994.

- V. Oral proceedings were held on 15 October 1996.

The appellant requested setting aside of the decision under appeal and revocation of the patent in its entirety.

The respondent requested, as a main request, that the appeal be dismissed and, as an auxiliary request, that the patent be maintained on the basis of the set of claims filed on 16 May 1995.

- VI. In support of its request the appellant relied essentially on the following submissions:

In claims 1 and 3 as granted the wording "window means" was used without that such term had a basis in the originally filed application documents or in the priority documents.

In accordance with the originally filed application documents the apertures in the carrier were "fitting windows" for mounting of articles of electrical equipment, which function was more limited than that of "window means" now used in the granted claim.

The originally filed claim 1 indicated that the connector was "specially adapted" for connection to the wire harness and claim 6, in which claim reference was made to "aperture means", indicated that the articles of electrical equipment were used to permit the connection to the wire harness on the car body side. This could only mean that the electrical equipment was fitted in the "aperture means". Therefore, since the subject-matter of the granted claims 1 and 3 was extended with respect to the subject-matter disclosed in the application as filed the subject-matter of these claims contained added subject matter within the meaning of Article 123(2) EPC and hence the main request was not acceptable for reasons of Article 100(c) EPC.

Considering inventive step, it was not D2 but rather D6* that described the closest prior art. In fact, this document disclosed a method of installing wiring in an automobile comprising all the methods steps of claim 1 of the patent in suit with the exception that no connection was made to a wire harness in the engine compartment. However, the teachings taken from D6* would enable the skilled person to improve the arrangement known from D2 in a manner as claimed in claim 1 and 3 of the patent. The subject-matter of the patent in suit therefore lacked an inventive step and the patent should be revoked.

VII. The respondent contested the appellant's opinion. Its submissions can be summarised as follows:

Considering the definition "window means" in the granted claims 1 and 3 it was true that there was no direct counterpart of such a term in the originally filed application documents. However, the "aperture means" in the original dependent claim 6 were of identical meaning as "window means" and also the originally filed method claim 1 or apparatus claim 4 did not limit the subject-matter of the application as to the nature of the windows means and the manner of connection between the two harnesses. Hence, there was sufficient support for the wording of granted claims 1 and 3 in the originally filed application documents. The requirements of Article 123(2) EPC were therefore fulfilled.

The prior art disclosed in D6* was quite different from the invention claimed in the patent in suit. In D6* there was actually no carrier for mounting of the articles but rather the car door itself was used for this purpose. Moreover in the arrangement in accordance with D6* connection to the main wire harness was via a special grommet which had to be threaded through a hole in the edge of the door, a measure actually to be overcome by the present patent. For these reasons the skilled person did not find in D6* any teaching in the direction of the claimed solution.

Reasons for the Decision

1. The appeal is admissible.
2. *Support of the granted claims by the originally filed application documents.*

2.1 The method of the granted claim 1 is based on the originally filed claims 1 and 2 and is further specified to include that:

- the second wire harness is in the engine compartment of the automobile,
- the first wire harness and the articles of electrical equipment are mounted on the passenger side of the carrier,
- the carrier is formed with window means through which the first connector connects the first wire harness to the second wire harness.

These features are apparent from the description of the preferred embodiment on pages 9 to 12 in relation to Figures 1 to 4 of the originally filed application documents.

2.1 The appellant was of the opinion that, since the preferred embodiment disclosed in the originally filed application showed that the connectors were mounted in the apertures and the originally filed claims 1 and 6 clearly implied a particular adaptation of the connectors, the granted claim 1 in which this feature was amended to read "window means", comprised subject-matter which extended beyond the content of the application as filed.

Contrary to the appellant's opinion, the Board cannot derive any indication from the originally filed claims or description to a limitation of the apertures in the carrier to be "fitting windows" i.e. apertures in which the connectors are fitted such as is shown in the preferred embodiment.

Rather the formulation chosen in the originally filed method claim 1 "the first connector is adapted for connection to the wire harness means of the car body", and in apparatus claim 4 "the first connector being for connection to said wire harness of the car body" avoids any restriction to the exact structure and mounting position of the connectors.

Although indeed the term "window means" has no direct counterpart in the application as filed, it is to be noted that the dependent apparatus claim 6 includes a reference to "aperture means to permit a second selected member of the articles of electrical equipment for connection on the car body side", and in the Board's opinion the window means through which the connector connects the harnesses defined in claim 1 are virtually identical, both in scope and meaning, to such aperture means permitting an electrical connection to be made between the wire harnesses on both sides of the carrier.

2.2 For the above reasons independent claim 1 and also independent claim 3 defining an apparatus for installing wiring in an automobile are supported by the original disclosure and do not infringe the requirements of Article 123(2) EPC.

2.3 The dependent method claim 2 and dependent apparatus claims 4 to 6 are based on the features described on page 10, second paragraph (claim 2) and page 9, last paragraph (claims 4 to 6) as well as on claims 7 and 8 of the originally filed application. No objection arises against these claims either.

2.4 It is to be noted that the reference numeral 7 used to indicate the window means in the claims 1 and 3 is wrong and should read 7₁ and 7₂.

Furthermore, in the description of the patent in column 4, line 9 also a door-panel is mentioned as a carrier panel in accordance with the patent, which is however excluded by the definition of subject-matter of claim 1.

However, these deficiencies of the patent do not give rise to an objection under one of the grounds of opposition in accordance with Article 100 EPC and cannot therefore be removed at this stage of the proceedings.

3. *Novelty*

Novelty of the subject matter of the independent claims 1 and 3 follows from the fact that the available prior art does not disclose a method of installing wiring or an apparatus for installing wiring in an automobile which includes the features that a first wire harness and electrical articles are mounted on the passenger side of a carrier and that the carrier is formed with window means through which a connector of the first wire harness connects the first wire harness to a second wire harness in the automobiles engine compartment.

Novelty of the subject-matter of the independent claims was in fact not contested by the appellant.

4. *Inventive step*

4.1 D2 represents the closest prior art. This document discloses a method of and apparatus for installing wiring in an automobile with the combination of precharacterising features of claim 1 and claim 3, respectively.

4.2 The appellant was of the opinion that D6* was more relevant than D2 and that in fact the method of the granted claim 1 differed from the method disclosed in D6* only in that there was an engine compartment side and that the connection was made to this side of the automobile.

Although D6* was filed after the 9-month period of Article 99(1) EPC, taking account of the circumstance that this document is of identical content as D6 filed with the notice of opposition, the Board considered it appropriate to introduce this document into the appeal proceedings.

However, the Board cannot follow the appellant's opinion according to which the car door disclosed in D6* should be seen as a carrier within the meaning of the carrier of the patent in suit.

In particular, in the arrangement of D6*, not all the articles are mounted on the door but at least some are mounted in the door (such as the power window motor, see the translation of D6*, page 2, last paragraph). The door surface is covered by means of a sealing sheet to which the wire harness is attached. The sealing sheet comprises openings for connectors so as to make the electrical connections to the electrical equipment mounted in the door, but connection to the main harness is via a special grommet which has to be threaded through a hole in the edge of the door.

D6* does therefore - apart from the fact that there is admittedly no connection to a wire harness in the engine compartment - neither disclose a connection of a first wire harness mounted on one side of a carrier to a second wire harness on the other side of the carrier through window means in the carrier nor that the connector itself connects said first wire harness to

said second wire harness through the window means thereby avoiding the conventional threading of a part of the wire harness through a hole and protection and fixation thereof by means of a grommet (see also the patent in suit, column 2, lines 8 to 17).

- 4.3 Starting from the method of and apparatus for installing wiring in an automobile as known from D2 the object to be achieved by the present patent can be seen, in accordance with the object mentioned in the patent in suit, in an improvement of the installation which avoids hands operations as much as possible and facilitates automation using a machine such as a robot.

This object is achieved by the method of and apparatus for installing wiring in an automobile in accordance with claims 1 and 3, respectively, of the patent in suit. In particular, the use of a carrier together with the mounting of the electrical articles and first wire harness on the passenger side of the carrier enables simple pre-assembly while the provision of window means in the carrier through which the first connector connects the first wire harness to the second wire harness which lies on the other side of the carrier, guarantees simple installation of the pre-assembled carrier in the motor vehicle.

- 4.4 The arrangement disclosed in D6*, considered to be pertinent by the appellant concerns a totally different object, i.e. the simplification of mounting a wire harness in a sealing sheet for prevention of the infiltration of raindrops by combining the wire harness and sealing sheet. Although some of the electrical articles and the first wire harness are mounted on the same side of the door, the door is not a carrier as defined in claims 1 and 3 of the patent and it does not comprise window means enabling a connection between wire harnesses at both sides of the carrier.

In respect of a connection of the first wire harness to the second wire harness D6* shows nothing more than the conventional solution using a grommet for the threading of the wire harness through a hole in the side of the door.

Therefore, considering the disclosure of this document, the skilled person could not find any suggestion in D6* leading in an obvious manner to the solution to the underlying problem of the patent in suit in the manner as claimed.

4.5 D2 also cannot give any hint for further development in the direction of the solution according to the patent essentially because the instrument panel is a sub-assembly designed for mounting of the instruments from one side and the connections with the wire harness to be made on the other side of these instruments. Hence, the teaching of this document is based on a concept quite different to that of the invention.

4.6 Apart from D2 and D6* the appellant did not rely on any of the other documents cited in the opposition proceedings. Since these documents do not come closer to the claimed subject-matter than D2 or D6* there is no need for further detailed consideration of these documents.

Furthermore, in the absence of particular relevance of the cited documents D3 and D5, which have a publication date falling within the period between the filing date and priority date of the patent in suit there is also no need for an assessment whether the priority claimed is valid.

4.7 Summarising, in the Board's judgment, the proposed solution to the technical problem underlying the patent in suit as defined in the independent claims 1 and 3 is

inventive and therefore these claims as well as their dependent claims relating to particular embodiments of the invention in accordance with Rule 29(3) EPC, are acceptable.

5. Since the respondent's main request was accepted there is no need to consider the auxiliary request.

Order

for these reasons it is decided that:

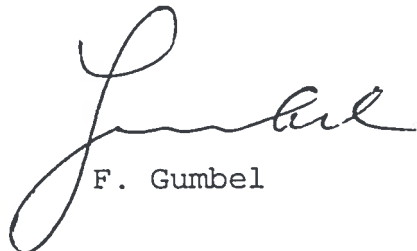
The appeal is dismissed.

The Registrar:



S. Fabiani

The Chairman:



F. Gumbel