Internal distribution code:

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

Datasheet for the decision of 21 April 2026

Case Number: T 0011/25 - 3.2.01

Application Number: 17709048.7

Publication Number: 3592627

IPC: B62D13/06, B62D15/02

Language of the proceedings: EN

Title of invention:
METHODS FOR ASSISTING AUTOMATIC UNCOUPLING/COUPLING OF A TRAILER

Patent Proprietor:
Volvo Truck Corporation

Opponent:
Scania CV AB

Headword:

Relevant legal provisions:
EPC Art. 100(b), 100(a), 54, 56

Keyword:
Grounds for opposition - insufficiency of disclosure (no) - fresh ground for opposition (yes)
Novelty - (yes)
Inventive step - main request (no) - auxiliary request (yes)

Decisions cited:
G 0010/91

Catchword:

Europäisches Patentamt
European Patent Office
Office européen des brevets

Beschwerdekammern

Boards of Appeal

Chambres de recours

Boards of Appeal of the
European Patent Office
Richard-Reitzner-Allee 8
85540 Haar
GERMANY
Tel. +49 (0)89 2399-0

Case Number: T 0011/25 - 3.2.01

D E C I S I O N
of Technical Board of Appeal 3.2.01
of 21 April 2026

Appellant: (Opponent)	Scania CV AB 151 87 Södertälje (SE)
Representative:	Mötsch, Andreas Thum & Partner Thum Mötsch Weickert Patentanwälte PartG mbB Ismaninger Straße 57 81675 München (DE)
Respondent: (Patent Proprietor)	Volvo Truck Corporation 405 08 Göteborg (SE)
Representative:	Kransell & Wennborg KB P.O. Box 2096 403 12 Göteborg (SE)
Decision under appeal:	**Decision of the Opposition Division of the European Patent Office posted/electronically transmitted on 6 November 2024 rejecting the opposition filed against European patent No. 3592627 pursuant to Article 101(2) EPC.**

Composition of the Board:

Chairman	G. Pricolo
Members:	A. Wagner
	O. Loizou

Summary of Facts and Submissions

I. The appeal of the opponent lies against the decision of the opposition division to reject the opposition filed against European patent No. 3592627 pursuant to Article 101(2) EPC.

II. The opposition division held that none of the grounds of opposition raised by the opponent under Article 100(b) EPC and Article 100(a) EPC with Articles 54 and 56 EPC could prejudice the maintenance of the patent as granted.

III. In order to come to these conclusions the opposition division considered, among others, the following documents:

D1: JP 2006 221278 A
D2: English machine translation of D1
D3: US 2016/367959 A1
D4: WO 2006/114197 A1
D5: US 2007/0027581 A1

IV. Oral proceedings by videoconference were held before the Board on 21 April 2026.

The appellant (opponent) requested that the decision under appeal be set aside and the patent be revoked in its entirety.

The respondent (patent proprietor) requested that the appeal be dismissed (main request), or in the alternative that the patent be maintained in amended form on the basis of auxiliary request 1 with the amended description, or on the basis of one of the

auxiliary requests 2 to 17 filed with the reply.

V. Claim 1 of the main request (patent as granted) reads as follows (feature numbering according to the impugned decision).

F1 A method comprising the steps of:

F2 parking (S1) a trailer (12) by means of a towing vehicle (10), which trailer (12) is coupled to the towing vehicle (10) via a coupling element (32) of the trailer (12); and

F3 automatically uncoupling (S5) the trailer (12) from the towing vehicle (10), so that the towing vehicle (10) can drive away from the parked trailer (12), characterized by

F4 the towing vehicle (10) estimating (S2) position and heading of the coupling element (32) of the parked trailer (12); and

F5 transmitting (S3) the estimated position and heading of the coupling element (32) of the parked trailer (12) to a data storage device (34, 42).

In **auxiliary request 1**, the following features of granted claim 2 were added to claim 1 (feature numbering added by the Board):

the method further comprising the steps of:
F6 receiving (S7) in a towing vehicle (10) the position and heading of the coupling element (32) of the parked trailer (12) from the data storage device (34, 42);

F7 based on the received position and heading of the coupling element (32) of the parked trailer (12), positioning (S8) the towing vehicle (10) in a position in which the parked trailer (12) can be automatically coupled to the towing vehicle (10);

F8 automatically coupling (S9) the trailer (12) to the towing vehicle (10);

F9 and driving (S11) away the trailer (12) by means of the towing vehicle (10).

VI. The appellant's (opponent's) arguments relevant to the present decision may be summarized as follows:

Sufficiency of disclosure - Article 100(b) EPC

The invention was not sufficiently disclosed for the following reasons:

- The term "estimate" in feature F4 was broad and unspecific. As the patent specification only described one single way how the estimation was done and did not set out a general technical concept for it, the claimed method could not be carried out over its entire range. This became even more apparent in view of granted claim 2, wherein the estimation had to be of a specific precision to allow an automatic coupling to be performed.

- The order of features F1 to F5 encompassed embodiments in which the position estimation of the coupling element of the trailer (F4) was performed after the towing vehicle was driven away from the uncoupled trailer. For this case, the patent did not

disclose how the estimation could be performed.

- For the embodiment of the coupling element being a kingpin, only one possibility for estimating the heading was disclosed. In this case, the claim was broad, but only one way to carry out the invention was disclosed.

- The patent did not provide any details of how the automatic uncoupling (F3) and the automatic coupling (claim 2) should be carried out.

Fresh ground for opposition - Article 100(c) EPC

The objection concerned the order of the steps F1 to F5 and was linked to the existing ground under Article 100(b) EPC. It was therefore inherently considered in the opposition proceedings even if not formally raised as a ground for opposition.

Main request, auxiliary request 1 - Novelty over D1

Claim 1 as granted was not new over D1. Contrary to the opposition division's opinion, D1 disclosed features F3 to F5. The opposition division's reading of claim 1 was too narrow.

Furthermore, with step F4 understood in its broad sense, paragraphs [0006] and [0007] of D2 also disclosed the additional features of claim 1 of auxiliary request 1.

Main request - Inventive step starting from D1/D2

The only possible distinguishing feature of claim 1 in view of D1/D2 could be seen in step F3. The patent

itself acknowledged in paragraph [0004] that automated trailer couplings for automatically uncoupling/coupling were generally known e.g. from D3. Performing an automatic uncoupling of the trailer was thus obvious in view of D1/D2 with common general knowledge or with D3.

Auxiliary request 1 - inventive step

Starting from D1/D2, the features added to claim 1 were disclosed therein such the claimed method lacked an inventive step for the same reasons as the main request with F3 being the sole distinguishing feature.

Should the Board be of the opinion that D2 additionally did not disclose the step of automatic coupling the trailer after positioning the towing vehicle (F8), it was submitted that this step could not establish an inventive step for the same reasons as provided for the main request for step F3.

Starting from D5, claim 1 also only differed in the step of automatic uncoupling/coupling (F3, F8) which was obvious in view of common general knowledge or in combination with D3 or D4.

VII. The respondent's (patent proprietor's) arguments relevant to the present decision may be summarised as follows:

Sufficiency of disclosure - Article 100(b) EPC

The opposition division was right in finding that the invention was sufficiently disclosed.
The patent as a whole together with the skilled person's common general knowledge provided sufficient information to enable the skilled person to put the

invention into practice.

Fresh ground for opposition - Article 100(c) EPC

The introduction of the new ground for opposition was explicitly not approved in accordance with G 10/91.

Main request, auxiliary request 1 - Novelty over D1

As held by the opposition division, D1/D2 did not disclose features F3 to F5.

Besides the features F3 to F5 not being disclosed in D1/D2, also none of the features added in claim 1 of auxiliary request 1 were derivable from D1/D2. The added features clarified the meaning of the estimation defined in step F4.

Main request - Inventive step starting from D1/D2

At least feature F4 - and therewith F5 - was not rendered obvious. The aim of D1/D2 was to locate a trailer in a large area. For this purpose, the position of the trailer as estimated in D1/D2 was sufficient. According to the claimed invention, however, by estimating the position and heading of the coupling element the trailer could not only be located but also approached in order to perform automatic coupling. As neither D1/D2 nor D3 disclosed feature F4, the claimed method was not rendered obvious.

Auxiliary request 1 - inventive step

The estimation of the trailer's position and heading as disclosed in D1/D2 was too rough to position the towing vehicle in a position in which the parked trailer could

be automatically coupled (steps F7, F8). Step F7 further specified step F4. Therefore step F4 could no longer be read on the disclosure of D2.
Nowhere in the the prior art, the steps F4 and F7 were disclosed and could thus also not be rendered obvious.

Reasons for the Decision

1. Sufficiency of disclosure

1.1 The Board confirms the conclusion of the opposition division (impugned decision, point 2) that the ground for opposition under Article 100(b) EPC does not prejudice the maintenance of the patent as granted.

1.2 **The term "estimation" in feature F4**

1.2.1 According to the appellant, the term "estimate" in feature F4 was broad while the patent specification did not provide any disclosure to justify such a broad wording.
Instead, only one very specific way for the estimation was disclosed (paragraph [0041]), namely by employing a linear single track vehicle model for which multiple parameters were determined by several sensors. Contrary to the opposition division's opinion, this sole way to carry out the invention did not enable the skilled person to put the invention into practice over the full scope of the claim.

In particular in view of claim 2 as granted, the estimation of the position and the heading of the coupling element of the trailer must be relatively precise to allow the towing vehicle to be positioned in a position in which the parked trailer can be

automatically coupled to the towing vehicle.

The specific method for the estimation did not constitute a technical concept fit for generalisation - see the "Case Law of the Boards of Appeal", 10th edition, section II.C.5.4 concerning functional features.
Furthermore, even for the described method, the patent specification failed to disclose the required accuracy for the implemented parameters.

1.2.2 The Board is of the opinion that - contrary to the respondent's (patent proprietor's) opinion - the patent in suit indeed only discloses one way of carrying out the estimation (see parameters as defined in granted claim 6 and paragraph [0015], and the method as described in paragraph [0040] and [0041]). However, the skilled person would have no difficulties in finding other suitable manners for estimating the position and heading of the coupling element in view of common general knowledge - whether as a rough estimate or as an estimate with a specific degree of precision and accuracy.

It is part of the common general knowledge that the coupling element has a predefined position at the trailer, and that it will assume a predefined position in relation to the towing vehicle when the towing vehicle and the trailer are coupled, whereby its heading will vary depending on the angle between the trailer and the towing vehicle. Hence, once a position of a fixed point of either the trailer or the towing vehicle is determined by conventional means, and the angle between the trailer and the towing vehicle is determined also by conventional means, the position and the heading of the coupling can be easily determined.

As an example of known means for determining the angle, a camera might be used, or as mentioned by the respondent (patent proprietor), sensors could be provided directly on the coupling.
These generally known measures enable the skilled person to carry out the required estimation with virtually any degree of precision and accuracy without undue burden.

1.3 Step F3 performed before step F4

1.3.1 In the appellant's view, claim 1 unambiguously defined in feature F3 that the parked trailer was the uncoupled trailer. In claim 1 step F4 was performed after step F3, thus the estimation of the position and heading of the coupling element occurred with the trailer being uncoupled.
Consequently, claim 1 encompassed embodiments in which the uncoupled towing vehicle drove away before step F4 was performed. For these embodiments, the patent did not disclose how the estimation could be done.

1.3.2 The Board does not agree with the statement that the "parked trailer" in step F4 necessarily refers to an uncoupled trailer. "Parking" is defined in step F2 and means that the trailer is stationary - as brought forward by the respondent (see also paragraph [0040] of the patent). The trailer can be parked while still being coupled -i.e. the situation after step F2 achieved before the uncoupling.

Contrary to the appellant's view, claim 1 leaves it open when the steps F4, F5 are performed. Both are in the characterizing portion simply indicating that these steps were seen as contribution over the prior art.

As the claim does not specify when steps F4 and F5 are executed (before or after the automatic uncoupling), the opposition division correctly stated (decision, 2.1.5) that this objection is rather a clarity objection, and clarity is not a ground for opposition.

From the application as a whole (paragraphs [0007] or [0039], [0040], [0044], [0045] and [0046]), the skilled person gets the information that the uncoupling (and in particular the driving away) follows the estimation and transmission of the position and heading of the trailer's coupling element.

The appellant's argument that the claim encompassed the possibility that the towing vehicle might be driven away before estimating the position of the trailer's coupling element and in this case the claimed method was insufficiently disclosed can not convince. The patent as a whole teaches that all means for the estimation of the position/ heading of the trailer's coupling element are placed at the towing vehicle (figure 1 and paragraph [0041]: GPS 22, articulation angle sensor 24, surrounding sensors 28, and paragraph [0030] a control unit). The result of the estimation is then transmitted to a data storage placed on the trailer. Only then the towing vehicle may drive away.

The skilled person knows that it would technically not make sense to make the required estimation - in particular to perform the collection of the required parameters - with the towing vehicle driven away. Therefore the skilled person would exclude this option when reading the claim.

1.4 Coupling element being a kingpin

1.4.1 The appellant argued that when the coupling element is a kingpin, the orientation of the kingpin must correspond to the orientation of the trailer (paragraph [0013]), since the kingpin on its own does not have orientation. Consequently, in this specific case, the claim was broad but only one way to carry out the invention was disclosed.

1.4.2 The Board disagrees. Claim 1 defines a coupling element in general, not a kingpin. The description then gives examples ("kingpin" in paragraph [0013] or "drawbar" in paragraph [0014]) and describes how the heading can be estimated even if the coupling element is a kingpin. Thus even in the case of a kingpin, the skilled person gets sufficient information from the application as a whole to carry out the claimed method.

1.5 Automatic uncoupling and coupling

1.5.1 According to the appellant, the patent did not provide any detail of how the automatic coupling and uncoupling should be carried out. Paragraphs [0046] and [0049] only referred to a kingpin, not to a drawbar mentioned in paragraph [0054] (figure 5b). Contrary to the opposition division's opinion, the patent did not provide any details on how the uncoupling or coupling was automated.

1.5.2 The Board is not convinced and agrees with the opposition division, decision, point 2.1.4. Based on the common general knowledge and with paragraphs [0004] and [0046] of the patent the skilled person gets sufficient information to carry out an automatic coupling/ uncoupling of the trailer.

2. Fresh ground for opposition: Article 100(c) EPC

2.1 With the statement of grounds of appeal, the opponent raised for the first time an objection under Article 100(c) EPC.

In the appellant's view, the objection should be admitted as it was closely linked to the objection of sufficiency of disclosure discussed before the opposition division (see point 1.3.1 above). Originally the features were disclosed in the order Fl-F2-F4-F5-F3 but in granted claim 1 the order was Fl to F5. This resulted in an aliud that did not find basis in the original application.

2.2 Even assuming that the objection of added subject-matter is linked, in substance, to the objection of sufficiency of disclosure, still the ground for opposition under Article 100(c) EPC was not submitted and substantiated in opposition proceedings, as acknowledged by the appellant (opponent). It thus constitutes a fresh ground for opposition. As the respondent (patent proprietor) explicitly did not approve the introduction of the new ground for opposition, the objection under Article 100(c) EPC can not be considered in appeal proceedings pursuant to G10/91.

3. Main request: Novelty over D1/D2

3.1 The Board confirms the opposition division's conclusion that the subject-matter of claim 1 as granted is new over the Japanese patent D1 with D2 being an English machine translation thereof.

3.2 Disputed is the disclosure of features F3 to F5.

3.3 Feature F3

3.3.1 D1/D2 does not disclose feature F3.

3.3.2 In the appellant's view, step F3 was disclosed in D2 in paragraphs [0016, 0017] and [0033] to [0037]. Therein an electric cable is described which indicated the connection status of the trailer: when plugged in, a trailer ID as "connected" signal is periodically transmitted, otherwise no signal is transmitted indicating the "not connected" status.
The appellant argued that when the towing vehicle did no longer receive the trailer ID, the trailer was automatically uncoupled and the towing vehicle could drive away from the parked trailer.

3.3.3 The Board does not agree. Feature F3 clearly requires that the automatic uncoupling includes "*that the towing vehicle can drive away from the parked trailer*", i.e. the physical uncoupling - as stated by the respondent. Nowhere in D2 an automatic physical uncoupling is mentioned. Even if the cable referred to by the appellant is disconnected (what actually seems to be done manually) and no trailer ID is transmitted, it does not mean that the trailer is uncoupled such that the towing vehicle can drive away from the parked trailer (F3). It still requires the step of physical uncoupling.

3.4 Features F4, F5

3.4.1 Features F4 and F5 are disclosed in paragraphs [0019], [0029], [0037], [0040], [0042] and [0047] of D2. Therein it is described that the position and the

orientation of the mounted vehicle is acquired by the positioning function of the navigation system and transmitted to a storage medium. The current position information and the orientation is seen as the current position and orientation of the trailer. The position and the orientation of the trailer are then displayed on a digital map screen as shown in figure 5 of D1. The position is indicated by circles and squares, the orientation of the trailer is indicated by arrows.

3.4.2 The respondent argued that the claimed position and heading of the coupling element of the trailer was more specific and spatially more limited than the geographic position of the towing vehicle as disclosed in D1/D2. Therefore, the acquired position and heading of the towing vehicle of D1/D2 could not be seen as an estimation of the position and heading of the trailer's coupling element.

3.4.3 However, as argued by the appellant (opponent), feature F4 only requires an unspecific, rough estimation of the position and heading of the coupling element. The method according to claim 1 defines that a trailer is parked, the heading and the position of the trailer's coupling element is estimated by the towing vehicle and transmitted to a data storage device, and after uncoupling, the towing vehicle can drive away. None of these steps imposes any additional requirements on the estimation in terms of precision or accuracy.
Therefore, the term "estimate" in claim 1 as granted can be understood broadly.
As the coupling element is a part attached to the trailer at a predetermined location, the displayed data as shown in figure 5 of D1 for the trailer can also be seen as a rough estimation of where the coupling element of the trailer is positioned and how it is

oriented.

4. Main request - Inventive step starting from D1/D2

4.1 The method of claim 1 as granted does not involve an inventive step over D1/D2 combined with common general knowledge or D3.

4.2 D1/D2 can be seen as an appropriate starting point as it addresses a similar purpose as the patent in suit, i.e. to improve the utilization rate of trailers (D2, paragraph [0005], patent in suit, paragraph [0010]). As explained in precedent point 3, claim 1 only differs from D1/D2 in feature F3 defining the step of automatically uncoupling the trailer from the towing vehicle.

4.3 The underlying technical problem can be seen in providing a convenient uncoupling process.

4.4 The Board shares the appellant's view that the patent itself acknowledges that automatic trailer couplings are generally known. As an example of known automatic couplings, D3 is cited in paragraph [0004] of the patent in suit.

4.5 The skilled person recognizes that the concept of an automatic trailer uncoupling synergizes with the process of D1. Thus the provision of the automatic trailer uncoupling is obvious in view of D1 with common general knowledge.

4.6 Alternatively the skilled person would consider D3 (paragraphs [0043, 0044]) disclosing an automatic uncoupling that solves the problem posed. The Board agrees with the opposition division's opinion (impugned

decision, point 4.4.2) that "*the skilled person might obviously use the automatic uncoupling of D3 [...] into D1*".

4.7 The respondent was of the opinion that D1 was not a promising starting point as it did not relate to methods for assistance in conjunction with automatic uncoupling/ coupling of a trailer. The claimed solution, however, had the technical effect that a trailer could not only be automatically found but also be approached in order to perform automatic coupling.

4.8 However, the approach and the automatic coupling are not part of claim 1 but only defined in claim 2 or described in paragraph [0007] of the patent in suit as an optional feature.

5. Auxiliary request 1

5.1 Claim 1 is a combination of granted claims 1 and 2. Claim 1 additionally requires inter alia that based on the estimated position and heading of the coupling element of the parked trailer, the towing vehicle is positioned in a position in which the parked trailer can be automatically coupled to the towing vehicle (steps F7, F8).

5.2 Novelty over D1/D2 is given as already outlined for claim 1 as granted (see point 3 above).

5.3 Inventive step starting from D1/D2

5.3.1 During oral proceedings before the Board, the appellant argued that D1/D2 disclosed the additional features F6 to F9 of claim 1 of auxiliary request 1. In particular steps F7 and F8 (positioning and automatic coupling)

were disclosed in paragraphs [0006] and [0007] of D2. In D2, based on the estimated position and heading of the trailer, the towing vehicle was navigated by route guidance to the trailer and of course, the trailer could then automatically be coupled.
The only distinguishing feature was thus F3 which was not inventive in view of common general knowledge or D3 - as held for claim 1 as granted.

In writing the appellant argued with the automatic coupling not being disclosed in D2. However, this step of coupling the trailer after positioning the towing vehicle did not establish an inventive step for the same reasons as the automatic uncoupling of step F3.

5.3.2 The Board does not agree.
First of all, as for the automatic uncoupling, D2 is silent about automatic coupling and thus also about positioning an towing vehicle in preparation for the automatic coupling. Features F7 and F8 are thus not disclosed in D1/D2.

Furthermore, in claim 1 of auxiliary request 1 all features need to be seen in context. Feature F7 defines that based on the received position and the heading of the coupling element of the trailer, the towing vehicle can be positioned in a position in which the parked trailer can be automatically coupled to the towing vehicle. As brought forward by the appellant (opponent) themself, such a positioning requires a certain precision of the estimation performed in step F4.

Consequently, because the estimated position and the heading of the coupling element of the trailer are used to enable the automatic coupling, the term "estimation" in feature F4 needs to be evaluated in this more

restrictive context. The estimation now implicitly requires more precise data - as argued by the respondent. Contrary to the appellant' opinion, the rough estimation as disclosed in D1/D2 does no longer fall within the wording of the claim.

5.3.3 Consequently, claim 1 differs from D1/D2 at least in features F3, F4, F7 and F8. Furthermore, the transmitted and received data in D1/D2 do not correspond to the estimated data as claimed as they do not have the required precision to automatically couple the trailer to the towing vehicle. Step F5 and F6 are thus likewise not disclosed.

5.3.4 The attacks D1 with common general knowledge, with D3 or D4 can not convince as they are only based on the distinguishing features F3 and F8.

The following is noted:
D1 aims to provide a method for a tractor crew to quickly and easily find back a trailer (D2, e.g. paragraph [0055]) and is silent about an automatic coupling, in particular based on the position estimation executed after parking the trailer.

D3 (paragraphs [0041], [0042]) and D4 (page 2, last paragraph, page 3, first paragraph) both relate to the step of automatic coupling/ uncoupling itself. Both are silent about the positioning of the towing vehicle in preparation to the automatic coupling.

The combination of D1 and D3 would only result in a method wherein the trailer is located according to the method disclosed in D1 and wherein the towing vehicle is then manually positioned to allow the automatic coupling according to D3. Nowhere in the prior art the

skilled person is hinted to combine the distinct methods of D1 and D3 and to use data from one method to allow performing the other method.

5.4 Starting from D5, as submitted in writing

5.4.1 Claim 1 involves an inventive step over D5 combined with common general knowledge, with D3 or D4.

5.4.2 Starting from D5, paragraphs [0008], [0010] and [0020] to [0022], the appellant argued in the statement of grounds of appeal - as for D1/D2 as closest prior art - that claim 1 differs from D5 only in features F3 and F8.

5.4.3 However, contrary to the appellant's opinion, D5 additionally does not disclose features F4 to F7.

D5 relates to a control system which calculates a path in order for a coupled trailer to be moved from an actual position to a preset position where it can be located underneath a frame (e.g. a container that is to be picked up and transported on the trailer), see paragraphs [0008] and [0019], [0022], [0023].
Even if in D5 a position and heading of the trailer is estimated, this estimation is not performed for the parked trailer but always for the moving trailer to calculate the path 6 to the parked frame (see figure 1).
Thus, D5 is not directed at all at a trailer that becomes uncoupled or coupled. Consequently, D5 can not prompt the skilled person to steps F3 to F8 - be it under consideration of the common general knowledge or of D3 or D4 (see point 5.3.4 above).

5.4.4 Furthermore, as both D3 and D4 are also silent about at least step F7, any possible combination can not render the claimed method obvious - as submitted by the respondent.

6. Description

Auxiliary request 1 includes not only the set of claims as filed with the patent proprietor's reply but also an adapted description as filed during oral proceedings before the Board.
The parties agreed that the description of auxiliary request 1 does not need further adaptation to the claims according to auxiliary request 1.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the opposition division with the order to maintain the patent as amended in the following version:

Description of the patent as granted with paragraph [0007] replaced by amended paragraph [0007] received during oral proceedings.

Claims 1 to 19 according to auxiliary request 1 filed with the reply.

Drawings of the patent specification.

The Registrar: The Chairman:

M. Schalow G. Pricolo

Decision electronically authenticated