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**Datasheet for the decision  
of 3 May 2018**

**Case Number:** T 1373/17 - 3.2.06

**Application Number:** 99850213.2

**Publication Number:** 1016578

**IPC:** B62B3/06

**Language of the proceedings:** EN

**Title of invention:**

Control device for a tiller truck

**Patent Proprietor:**

Toyota Material Handling Europe AB

**Opponents:**

UniCarriers Europe AB  
Jungheinrich Aktiengesellschaft

**Headword:**

**Relevant legal provisions:**

EPC Art. 100(a), 54(1), 54(2), 56, 114(2)  
RPBA Art. 12(1), 12(2), 12(4)

**Keyword:**

Admissibility of appeal - notice of appeal - name of appellant

Novelty - main request (yes)

Late-filed document - admitted (yes)

Auxiliary request 2a - admitted (yes)

Inventive step - main request (no) - auxiliary request 2a (no)

**Decisions cited:**

T 1775/07

**Catchword:**



**Beschwerdekammern**

**Boards of Appeal**

**Chambres de recours**

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Case Number: T 1373/17 - 3.2.06

**D E C I S I O N**  
**of Technical Board of Appeal 3.2.06**  
**of 3 May 2018**

**Appellant:** UniCarriers Europe AB  
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**Decision under appeal:** **Decision of the Opposition Division of the  
European Patent Office posted on 4 April 2017  
rejecting the opposition filed against European  
patent No. 1016578 pursuant to Article 101(2)  
EPC.**

**Composition of the Board:**

<b>Chairman</b>	M. Harrison
<b>Members:</b>	P. Cipriano
	W. Ungler
	G. de Crignis
	J. Hoppe

## Summary of Facts and Submissions

I. An appeal was filed by the appellant (opponent 1) against the decision of the opposition division to reject the opposition to European patent No. 1 016 578. In support of the appellant's request to set aside the decision and revoke the patent, *inter alia* the following documents were cited:

D1 "The Partner of the Handling Industry for Electricity and Electronics - Power and control units", by I.E.S

D3 "Power and control units - PCU - for pallet trucks and stackers", by I.E.S

D4 "Power and control units PCU", by I.E.S

D9 "The logical step to CAN-open", iVT Materials Handling, p.79-82;

D10 EP 0 319 630 A1

D14 US 5 033 326

D21 Printouts from [www.macchine-legno.com](http://www.macchine-legno.com)

D22b CE conformity statement Master Light S/N 17518

D22c Confirmation order KS06 DTD fax from 17 June 1998

D22d Invoice issued 28 July 1998 for order KS06 DTD corresponding to Master Light 105/29

D22e Instruction manual Master Light 105/29

D23 Brochure: Carrelli Elevatori ECO/ITS 10.3-16.3

- II. With its letter of 20 December 2017 in response to the grounds of appeal, the respondent (proprietor) requested that the appeal be dismissed and the patent be maintained as granted. It also filed auxiliary requests 1, 2, alternative A of auxiliary request 2 (hereinafter auxiliary request 2a), alternative B of auxiliary request 2, auxiliary requests 3, 4, 5, 6 and alternative A of the sixth auxiliary request.
- III. The Board issued a summons to oral proceedings and a subsequent communication containing its provisional opinion, in which it indicated *inter alia* that the subject-matter of claim 1 seemed to be novel over D1, D3 and D4 but might be considered obvious. In addition, the Board mentioned that D21, D22 and D23 might also need to be considered at the oral proceedings, along with the public availability of D21 to D23 which had been contested by the respondent.
- IV. With letter of 25 January 2018, the party as of right (opponent 2) in accordance with Article 107 EPC notified the Board that it would not be attending the oral proceedings. It also filed no observations in the appeal proceedings.
- V. Oral proceedings were held before the Board on 3 May 2018, during which the respondent withdrew all its auxiliary requests apart from auxiliary request 2a. The appellant filed an extract dated 3 May 2018 from the Swedish Companies Registration Office relating to a change of name of the opponent to UniCarriers Europe AB. A coloured copy of pages 79 - 82 of D9 was also filed by the respondent.

- VI. The appellant (opponent 1) requested that the decision under appeal be set aside and the European patent be revoked.
- VII. The respondent (patent proprietor) requested that the appeal be dismissed (main request), auxiliarily that the patent be maintained in amended form on the basis of auxiliary request 2a filed with letter dated 20 December 2017.
- VIII. Claim 1 of the main request (patent as granted) reads as follows:  
"1. A tiller truck of the type that includes logic circuits for the control of one or several of the functions of the truck, comprising a communication arrangement between a handle of the tiller truck and the truck itself, characterized in that a logic unit comprising logic circuits is arranged in the handle and the communication between the logic unit and a logic unit in the truck itself takes place via a serial connection, and wherein the arrangement is such that the communication is bi-directional to allow sensors in the truck itself to send its information to the logic unit in the handle."
- Claim 1 of auxiliary request 2a further includes the features of granted claims 2 and 9:  
- that the serial connection takes place via a serial cable  
- wherein the logic unit in the handle together with one or several controls and or keys are united to a control panel (5) removable from the handle.
- IX. The appellant's arguments may be summarised as follows:

*Party status of the appellant*

The appellant's name had changed to UniCarriers Europe AB as was shown by the extract from the Swedish Companies Registration Office. No transfer of the opposition was involved.

*Main request - novelty*

D4 disclosed all the features of claim 1, including feature "the arrangement is such that the communication is bi-directional to allow sensors in the truck itself to send its information to the logic unit in the handle" (hereinafter called feature F6). The command module in the handle, which was considered to be the logic unit, was located on the multiplexed bus. Further, it did not matter if the command module in D4 actually received information from sensors as all logic units inherently had the capability of doing so.

*Admittance of D21-D23*

D21, D22 and D23 were filed to counter an argument developed by the opposition division itself in the oral proceedings for the first time and showed that it was at least a possibility to put a display in the tiller head of a forklift truck.

*Main request - Inventive Step*

When starting from D4, the objective technical problem derivable from providing a particular type of communication was not the reduction of microvibrations. This was achieved by the locating the logic unit in the handle, which was already known from the schematic drawing in D4 which was the starting point for



considering inventive step. The objective problem was merely to find an alternative way of displaying the sensor data.

The skilled person would arrive at the subject-matter of claim 1 using the information available in D4 alone. D4 already disclosed a command and a display module placed together for a scissor lift and the skilled person would do the same in a tiller truck and put the display together with the command module without needing any inventive skill. In this way the sensor signals from the truck would automatically arrive in the display which was in the handle/tiller head. The normal use of a tiller truck, where the user faced away from the tiller arm or had to push the tiller arm up or down or to the sides, did not impose any drawback for the skilled person to putting the display in the handle, since the use of the tiller truck did not require constant monitoring of the display information. D22 and D23 also showed that it was prior art to use a display in a tiller head.

Figure 4 of D9 showed a display and a command module on a dashboard, which was the equivalent to the tiller head in a VNA (Very Narrow Aisle) forklift truck. The skilled person understood that the information in D9 related to all types of forklift trucks as stated on page 80, column 3, line 5, and would thus move the display next to the command module which was in the tiller head of a forklift truck and, without any further measure, achieve the defined limitation of bi-directional communication of sensors with the tiller head.

*Auxiliary request 2a - Admittance*

Auxiliary request 2a was late filed and should not be admitted, because the respondent did not file any auxiliary requests replying to the notice of opposition and the auxiliary request 2a was filed for the first time with the reply to the grounds of appeal.

In addition, claim 1 contained the features of granted claim 2, which did not provide any additional distinction of the claimed tiller truck in relation to D4, because all serial communication was necessarily made through a serial cable. The requirement of Rule 80 EPC was not met since no ground of opposition was overcome.

*Auxiliary Request 2a - Inventive step*

In addition to the feature of claim 1 of the main request already not known from D4, D4 also did not disclose the feature "wherein the logic unit in the handle together with one or several controls and or keys are united to a control panel (5) removable from the handle". These features were not functionally interdependent, so it was suitable to formulate partial problems when starting from D4 to assess inventive step. The partial problem relating to the further differing feature in this claim was how to make the pieces in the handle easier to replace or repair. D10 and D14 disclosed the missing feature being used to solve this partial problem, such that the subject-matter of claim 1 did not involve an inventive step.

- X. The respondent's arguments may be summarised as follows:

*Main request - novelty*

Feature F6 was not disclosed in D4. The command module, which was the only module located in the handle, did not receive information. The display module was located on the instrument panel which was not necessarily in the handle. None of the indicators foreseen for the display module in D4 required bi-directional communication. The display module needed to be powered by a power line that could also supply the power voltage of the battery, thus information did not necessarily need to come through the bus.

#### Admittance of D21-D23

D21 to D23 should have been filed earlier and were not *prima facie* relevant, because they did not show logic units or bi-directional communication between the handle and the truck itself. Further, for several reasons, it was not clear if any of D21, D22 or D23 were publicly available at the priority date of the contested patent.

#### *Main request - Inventive step*

Starting from D4 as the closest prior art, the objective technical problem was to limit exposure of the circuit boards in the logic unit to microvibrations as could also be deduced from paragraphs [0006], [0007], [0009] and [0030] of the patent specification. This was furthermore the problem that the Board had formulated in the decision T 1775/07 regarding the same patent application. This problem was also solved by the features of claim 1, since the bi-directional communication was with the tiller head, and the joint of the tiller arm to the truck would not transmit at least the vertical component of the microvibrations to the head.

The skilled person would not arrive at the subject-matter of claim 1 when considering D4 itself and common general knowledge alone. The idea of moving the display next to the command module or combining it with this was not hinted at in D4 and the skilled person would not contemplate moving it there, because trucks with tiller arms were operated in a different way in comparison to other types of fork lift trucks. The user of a tiller truck did not face the handle constantly during operation and this fact would guide the skilled person away from using a display module in the tiller head.

The skilled person would also not consider D9, since its application related to a VNA forklift truck, which had different safety requirements - the user had to press a foot switch control for the forklift to work and to guarantee that the user was not in a dangerous position when the truck was operating in the aisles. This mode of operation was so different to that of the claimed tiller truck that the skilled person would not consider it.

*Auxiliary Request 2a - Admittance*

Auxiliary request 2a was not late filed and was part of the complete case of the party under Article 12(2) RPBA. The amendment combining granted claims 1 and 2 limited claim 1 and therefore fulfilled the provision of Rule 80 EPC.

*Auxiliary Request 2a - Inventive step*

The skilled person would not combine the teaching of D4 with D10 or D14 to arrive at a tiller truck with a

removable control panel according to claim 1 in an obvious manner.

## **Reasons for the Decision**

1. Party status of the appellant
  - 1.1 The appellant filed an extract from the Swedish Companies Registration Office relating to UniCarriers Europe AB dated 3 May 2018 during the oral proceedings supporting its allegation that the appellant's name had changed to UniCarriers Europe AB. Page 2(2) of the Certificate shows under the point "Date of registration of current and previous company names" that the company previously known as "Atlet Aktienbolag" was registered under the name "Unicarriers Europe AB" as of 9 March 2015. The correction of the notice of appeal dated 14 June 2017 reflected this change as it stated that the appellant was "Atlet AB (now UniCarriers Europe AB)". Thus, it is clear from the corrected notice that the opponent and appellant had changed its name to "UniCarriers AB", its name at the time of filing of the notice of appeal. The respondent did not raise any objection to the change of the company's name or the opponent's status.
  - 1.2 The Board has no reason to doubt the authenticity of this information and thus concludes that the appellant's name changed to Unicarriers Europe AB and that the appeal was filed with an indication of the correct appellant.
2. Main request - Novelty

2.1 D4

2.1.1 The appellant argued that the feature

"the arrangement is such that the communication is bi-directional to allow sensors in the truck itself to send its information to the logic unit in the handle" (feature F6)

was also disclosed in D4. It is undisputed between the parties that all the other features of claim 1 are disclosed in D4. The Board also finds no reason to disagree.

2.1.2 Bi-directional communication requires not only that the arrangement be configured to allow the sending of information from the logic unit in the handle to other logic units in the truck, but also that the arrangement be configured to allow the sending of information from sensors in the truck to the logic unit in the handle. It is implied in the expression "bi-directional communication [between the logic units in the truck and in the handle]" that data has to be able to arrive at and leave the logic unit in the handle. Thus it is not sufficient that the data be available in the bus at the disposal of all the logic units for possible bi-directional communication to be established.

Although bi-directional communication between logic units is generally known, the Board finds that logic units may be of several types and are configurable in several ways such that, contrary to the argument of the appellant, bi-directional communication is not inherent to all logic units of D4. For bi-directional communication to take place between two locations,

these locations have to be configured to send and receive data and only clear and unambiguous proof of data transmission and reception would attest to a disclosure of the existence of bi-directional communication in D4.

2.1.3 The schematic electrical diagram on page 2 in D4 discloses a command module, a display module, a lifting module and a traction module, all of these being connected through a 4-wire multiplexed bus. While the modules and the bus are considered to comprise logic units in the sense of claim 1 (and this was not contested) it is only inherent from the schematic diagram that the communication from the command module to the lifting and traction modules has to be established in order for the user to be able to operate the engine and the lifting mechanism of the truck. Since D4 does not disclose any kind of feedback from the traction or the lifting module back to the command module, the communication between the lifting/traction modules and the command module does not necessarily need to be bi-directional.

2.1.4 As mentioned above, the schematic electrical diagram also discloses a display module connected to the bus. D4, page 1, column 1, discloses that the display module indicates the battery charge level, the number of charge/discharge cycles and has an hour meter.

Whilst it is true that powering the display module requires some form of power line to the battery, it would not make sense to a skilled person to connect the display module to the bus and then obtain and route all the information through the power line. It is then implicit to a skilled person that at least part of the information displayed (the battery charge level and/or

the number of charge/discharge cycles) needs to be captured by sensors and arrive at the display module through the bus connection.

However, as stated on column 2 of page 2 in the standard configuration of a pallet truck, the display module is placed "on the vehicle instrument panel", while the command module is "on the tiller head". D4 does not further specify where the instrument panel is located and from the prior art it is known to have displays on the truck chassis. Thus the skilled person reading D4 cannot clearly and unambiguously conclude that said instrument panel is necessarily in the tiller head. The Board thus finds that the display module in D4 receives information from sensors in the truck itself but is not necessarily located in the tiller head, i.e. the sensors send their information to a logic unit which is not necessarily in the handle such that no bi-directional communication with the tiller handle is implicitly established. The subject-matter of claim 1 is thus novel over D4.

3. Admittance of D21, D22 and D23 into the proceedings
- 3.1 Together with its grounds of appeal, the appellant filed D21, D22 and D23. According to Article 114(2) EPC, facts and evidence not submitted in due time may be disregarded. In particular, the relevance of a late-filed document should normally be taken into account when considering how to exercise this discretion. In this respect it is suitable to consider whether D21, D22 and D23 are more relevant than other evidence currently on file insofar as they could change the Board's conclusion regarding the presence of an inventive step in the subject-matter of claim 1.



3.2 The fax confirmation order D22c concerns an order KS06 DTD from Smålands Truck AB dated from 10 June 1998 for a Master Light Truck 105/29. The invoice D22d concerns the order KS06 DTD and shows a Master light Truck with the serial number 17518 has been shipped together with its instruction manual D22e (dated January 1998 - see page 1-1) to Smålands Truck AB in July 1998. CE conformity statement D22b shows that the forklift truck with the serial number 17518 was inspected and considered to be in conformity on 6 August 1998. The Board finds no reason to doubt that the sale and delivery of the forklift truck with the serial number 17518 was concluded before the priority date of 30 December 1998 and that the instruction manual D22e was also delivered with it. It was the standard practice of the skilled person in 1998 to handwrite the serial number and the construction year in the instruction manual as seen under item 1.4. The printed dotted lines create a blank field that is to be filled by hand. Thus, contrary to the argument of the respondent, there is a link between the instruction manual D22e and the Master Light Truck 105/29 with the serial number 17518 sold. Both the truck and its manual are therefore state of the art under Article 54(2) EPC.

3.3 D23 is a brochure for a forklift truck from the company "Carrelli Elevatori". Contrary to the argument of the respondent that there was no date for the availability of D23 to the public, D23 discloses on page 2 of the brochure the numbers "4/90" written vertically on the right side of the table. The Board does not doubt that these numbers indicate that this brochure was printed around April 1990, i.e. more than eight years before the priority date of the patent and therefore was publically available before the priority date and

belongs to the state of the art under Article 54(2) EPC.

3.4 D22e, Fig. 4.2 and D23, page 1, picture on the left, disclose a LED display that monitors the battery charge condition. The fact that the battery charge condition in D22e and D23 may possibly not be provided by a sensor signal, as argued by the respondent, does not reduce the relevance of these documents since the starting point D4 already discloses such sensor signals. As discussed above under item 2.1.4, D4 already discloses bi-directional communication between a display and sensors in the truck and only differs from claim 1 in that the display in D4 is not specifically in the tiller head. Since D22e and D23 show a display in the tiller head, a feature that no previous document on file disclosed clearly and unambiguously before, these documents are considered relevant to the assessment of inventive step.

3.5 The further argument from the respondent that the documents D22 and D23 should have been filed earlier is also not accepted by the Board. It was the opposition division itself that brought forward the argument at the end of the oral proceedings that the high mobility of the tiller handle lead the skilled person away from placing displays in the tiller handle, since the visibility was not always the best (see page 6, last 2 paragraphs of the minutes). The appellant was therefore never in a position before the opposition division's decision was taken where it could reasonably have been expected to submit new evidence to support its position.

3.6 The Board thus exercises its discretion under Article 114(2) EPC and admits D22 and D23 into the proceedings.

The question of the possible admittance of D21 is not relevant to the decision and may be left undecided.

4. Main request - Inventive step

4.1 As also accepted by both parties, D4 is found by the Board to present the most promising starting point for considering inventive step. As discussed above under item 2.1, D4 discloses all the features of claim 1 with the exception of feature F6.

4.2 The respondent argued that the objective technical problem was to limit exposure of the logic units to microvibrations as could be deduced from paragraphs [0006], [0007] and [0009] of the patent specification. The Board cannot however accept this as the objective technical problem to be solved. Paragraphs [0006], [0007] and [0009] disclose that the above effect is the effect of locating a logic unit in the handle and not of having a particular type of communication, such as the one defined in feature F6. This issue was also addressed in the Board's communication prior to the oral proceedings (see item 2.2 thereof). D4 already discloses a logic unit positioned in the handle (the command module) and a solution to the problem of vibrations. D4, page 2, column 1 under the item "Technology", states that the entire system is encapsulated in resin to protect it from vibrations, which the Board finds would also encompass the referred microvibrations. So, whilst the adaptation of D4 to bi-directional communication may implicitly require moving a further logic unit to the handle or adapting the logic unit in the handle to operate the display, such a moving or adaptation of a logic unit does not necessarily solve any problem related to microvibrations.

4.3 The respondent also argued that a universal joint connecting the handle to the body of the truck minimized the transmission of at least the vertical component of microvibrations to the handle where the logical units are located. The Board cannot accept this argument, since a universal joint is not claimed and, even if it were to be regarded as implicit in the claimed tiller truck, the universal joint would not provide the desired effect. The transmission and damping of vibrations depends on many factors relating to the design, construction and materials employed in the truck chassis as well as the handle, such that the general provision of a universal joint would not necessarily minimize the transmission of microvibration in tiller trucks.

Thus, to the extent that a problem of microvibrations is solved at all by only those features which are defined in claim 1 (which itself is anyway not accepted), the solution to such a problem is already known from D4.

4.4 As explained above under item 2 above, the differing feature with regard to D4 is only feature F6. D4 already discloses a logic unit (command module) in the handle and sensor information is sent to a display module located in an instrument panel, the location of which is not specified. To send sensor information of D4 to the handle where the command module is located and so arrive at bi-directional communication thus only provides the effect of allowing to display said sensor information in the handle. This being the case, the objective technical problem, i.e. the problem which can be seen to have been actually solved in the light of the closest prior art D4 and the features present in

claim 1, is thus to provide a suitable alternative placement for sensor data display.

- 4.5 Although the respondent argued that the objective technical problem regarding vibrations and protection from shocks was considered to be the problem to be solved in decision T 1775/07 (Reasons 3.1), this does not apply to the present case, since that problem was formulated in the light of a different starting point taken as the closest prior art, which starting point disclosed less features of claim 1 than D4 (in particular it did not disclose any logic unit in the handle or serial communication).
- 4.6 D4 considering common general knowledge
- 4.6.1 The Board finds that it is common general knowledge that command modules and display modules are combinable in the field of fork lift trucks. For example, D4, page 2, column 2 under item "Standard configurations" already discloses an embodiment regarding a scissor lift where the platform command and the display module form a single module, and D9, which is discussed in detail below and concerns the development of a network protocol applicable to all types of forklift trucks, discloses an operator dashboard comprising a display and a command module in figure 4. Thus the skilled person would contemplate arrangements used in other types of fork lift trucks when looking for a solution to the technical problem.
- 4.6.2 The Board does not accept the argument of the respondent that the skilled person could but would not move the display of D4 to the handle in a tiller truck due to its particular handle configuration. The respondent argued that, for example, where the handle

would be in a vertical position when stopped and unmanned, such as when charging was taking place, the display would be upside down and the displayed information would not be readable. In its opinion, such a display was considered an intelligent display needing to show such an amount of information that the user would not consider mounting it in a way that it could be upside down.

The Board however finds that, whilst the user of a tiller truck does not face the handle all the time while he is using the tiller truck, it is also true that the type and amount of information being displayed (such as the battery charge level or other other sensor values in D4) does not require constant monitoring and needs only to be verified occasionally. Further, assuming that the tiller truck is stopped and unmanned, it is not immediately clear why a display in the handle would be "less" readable than in any other part of the truck, since this is dependent on the side of truck in which the display is placed and/or the way the truck is parked and approached by the user. As can be seen for example from D22 or D23, displaying information in the tiller handle has been done in the past and thus there is no technical prejudice for the skilled person to overcome, such that placing the display in the tiller head is merely one of several obvious alternatives for the skilled person.

- 4.6.3 The argument that D22 and D23 do not display sensor information but simply the reading of a battery charge level, and that the skilled person would not consider these documents, is also not accepted by the Board. As mentioned under 4.4, D4 already discloses sensor information and the solution to the technical problem is obtained simply through the placement of the display

in the tiller head. D22 and D23 teach the skilled person that displays have already been placed on the tiller head and that this display location was a known possibility in the prior art.

4.6.4 When starting from D4, and taking into account common general knowledge in the art, the skilled person looking for a suitable alternative placement for the sensor data display would thus place the display module of the pallet truck in D4 in the handle of the tiller truck and therefore arrive at the subject-matter of claim 1 in an obvious manner.

4.7 D4 in combination with the teaching of D9

4.7.1 Although the Board finds that the subject-matter of claim 1 lacks an inventive step for the reasons already given above, it is important to consider the teaching of D9 in this regard, since the respondent relied on this in part to demonstrate a difference between different types of forklifts and thus a perceived incompatibility between them. The skilled person would also take into consideration D9, an article in a magazine directed to industrial vehicle technology which describes the application of CAN protocols to fork-lift trucks. While it is true that Figure 2 of D9 discloses an order picker where the user stands on a platform in a cabin, line 5 of the third column of page 80, discloses that such a CAN network could be "used in all classes of fork lifts". The skilled person would thus consider that the teaching of D9 is also applicable to tiller trucks, which also form part of a class of fork-lift trucks, when looking for a solution to the technical problem.

4.7.2 D9 discloses on the first column of page 80 that fork-lift CAN networks generally integrate LCD or graphic displays and encoders, sensors or actuators. Figure 2 and the paragraph "VNA Truck components" on page 81 are directed to a VNA fork-lift truck, which is a fork-lift of a special type that is used in very narrow isles (VNA). Figure 2 discloses an "operator display" box indicating battery condition, the steering angle and the height readout, i.e. parameters requiring sensor information. Figure 4 further shows a dashboard comprising a display and a command module to operate the truck. Whilst it is true that VNA trucks and tiller trucks are different types of fork-lift trucks and that VNA trucks have different safety requirements and may require more sensors, the skilled person is taught that the information in D9 applies to all types of vehicles and no compelling reason can therefore be seen that such teaching would be restricted to a particular type of forklift truck as already explained under item 4.6.1 above. It would thus be obvious for the skilled person having regard to Figure 4 of D9 to place a display together with a command module in a tiller head of the fork-lift truck of D4, i.e. place the display close to where the operator is necessarily present for steering/controlling the truck.

4.8 For the above reasons, the subject-matter of claim 1 of the main request does not involve an inventive step (Article 100(a) and 56 EPC) when starting from D4 and given the technical problem to be solved, either when considering common general knowledge of the skilled person or with the teaching of D9.

5. Auxiliary request 2a - Admittance



- 5.1 Article 12(4) RPBA requires the Board to take into account everything presented by the parties under Article 12(1) RPBA if and to the extent that it relates to the case under appeal and meets the requirements in Article 12(2) RPBA. Nevertheless, according to Article 12(4) RPBA, the Board has the discretionary power to hold inadmissible facts, evidence and requests that could have been presented or were not admitted in the first instance proceedings.
- 5.2 Auxiliary request 2a was filed together with the reply to the grounds of appeal (see Article 12(1)(b) RPBA) and is considered part of the respondent's complete case under Article 12(2)(a) RPBA.

In the present case, the opposition division had never given any negative provisional opinion regarding the patentability of the main request, had rejected the oppositions and considered the subject-matter of the claims of the main request to be both novel and to involve an inventive step. Given the positive development and the outcome of the proceedings in its favour, the respondent had no reason to file any particular auxiliary request during the opposition proceedings. Faced with an appeal challenging the novelty and inventive step of its main request, not least on the basis of new prior art, the Board finds that it is legitimate for the respondent to file auxiliary requests directed to limitations of such a main request, to cover the case that the Board might set the decision of the opposition division aside. Claim 1 of the present request is a combination of granted claims 1, 2 and 9 and as such it is directed to such a limitation.

5.3 The appellant's argument that the features of granted claim 2 do not provide any additional distinction of the claimed tiller truck in relation to D4 and therefore the amendment did not fulfill the requirement of Rule 80 EPC is not accepted by the Board.

Rule 80 EPC specifies *inter alia* that the claims may be amended, provided that the amendments are occasioned by a ground for opposition under Article 100 EPC.

In granted claim 1, the communication is defined as taking place via a serial connection. As explained in paragraph [0005] of the patent, said communication only "preferably" takes place by means of a serial cable and other possibilities to establish a serial connection such as a wireless transfer via radio or optically are possible. Thus, when amending the subject-matter of claim 1 such that a "serial connection" takes place via a serial cable, the possibilities of wireless transfer via radio or optical are excluded, such that the claim 1 is limited in relation to the granted claim. Such a limitation of the claim is unequivocally an amendment aimed at overcoming an objection to lack of novelty and/or inventive step. Whether it is successful in providing an allowable claim is an entirely different matter, not concerned with Rule 80 EPC. The amendment is thus found to be occasioned by a ground of opposition under Article 100(a) EPC and is not contrary to Rule 80 EPC.

Thus, since there was no reason for the Board to hold this request inadmissible, the Board exercised its discretion under Article 12(4) RPBA to admit auxiliary request 2a into the proceedings.

6. Auxiliary request 2a - Inventive step

- 6.1 In addition to the features of the main request, this request further includes the features:  
A) that the serial connection takes place via a serial cable  
B) wherein the logic unit in the handle together with one or several controls and or keys are united to a control panel (5) removable from the handle.
- 6.2 The respondent did not contest the appellant's argument that the serial communication of the bus in D4 is by wire, specifically the serial cable, such that D4 also discloses feature A). The Board also finds no reason to disagree with this.
- 6.3 Regarding feature B), although the respondent argued that it was the logic unit that was removable from the handle, the Board finds that the wording of claim 1 can logically be understood such that it is the control panel that is removable from the handle. At the very least, claim 1 cannot be understood to mean that only the logic unit itself is removable since, according to the wording of claim 1, the logic unit and the controls or keys are "united" (i.e. form a unit) with the control panel. By making a control panel removable from the handle, it becomes easier to exchange the control panel, or access any part inside it e.g. in case of damage. This effect and the effect of the differing feature F6 (see item 4.3 above - allowing to display sensor information in the handle) do not mutually influence each other to achieve a technical result over and above the sum of their respective individual effects (i.e. there is no synergy).

Since features F6 and B), by which claim 1 differs over D4, are not functionally interdependent each feature leads to an independently formulated partial problem

and to an independent assessment of inventive step under the problem-solution approach.

- 6.4 The objective partial problem solved by feature F6 has been dealt with above under items 4.3 to 4.6.2 and is considered not to involve an inventive step.

The objective partial problem solved by feature B) was argued by the appellant as being to make the pieces in the handle easier to replace or repair. The respondent did not argue against the formulation of this as the partial problem, and thus the Board also finds no reason to disagree with this indeed being the partial problem.

- 6.5 The skilled person faced with this partial problem would look into e.g. D14, which also deals with tiller trucks. D14 also addresses on column 1, lines 18 to 25 and 57 to 62, the problem of replacing the parts of the handle when they are damaged. The solution proposed in D14 is to have a handle formed by two cup elements which are detachably connected with one another. D14, Figure 1 and column 2, lines 37 to 48, discloses that the steering head consists of two detachably connected cup elements 8 and 9, the second cup element 9 having "an horn shaped part 10 which receives the switches, control devices on which gripping handles are disposed ". This second cup element 9 is then a control panel as defined in claim 1 and a control module as disclosed in D4, to which a logic unit in the handle together with one or several controls are united. The skilled person faced with problem of making the pieces in the tiller handle of D4 easier to replace or repair, would thus learn from D14 that, when applied to a casing such as in D4, it would make the control module of D4 removable in an easier manner. The teaching of D14 would thus

lead the skilled person to solve the partial problem B) when starting from D4 without the use of inventive skill.

6.6 For the above reasons, the subject-matter of claim 1 of auxiliary request 2a does not involve an inventive step (Article 56 EPC) when starting from D4 and given the two partial problems to be solved, when considering common general knowledge or the teaching of D9 for one of the partial problems and the teaching of D14 for the second partial problem, respectively.

## 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