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**Datasheet for the decision
of 19 September 2019**

Case Number: T 2385/17 - 3.2.01

Application Number: 12187324.4

Publication Number: 2565149

IPC: B66F9/20, B66F9/075, B66F9/24

Language of the proceedings: EN

Title of invention:

A MATERIALS HANDLING VEHICLE HAVING A CONTROL APPARATUS FOR
VARYING A SPEED LIMIT OF A STEER MOTOR

Patent Proprietor:

Crown Equipment Corporation

Opponent:

STILL GmbH

Headword:

Relevant legal provisions:

EPC Art. 56
RPBA Art. 12(2), 12(4)

Keyword:

Inventive step - main request and first auxiliary request (no)
Not substantiated auxiliary requests - not to be taken into
account

Decisions cited:

T 1890/09, T 0217/10, T 0089/16

Catchword:



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Case Number: T 2385/17 - 3.2.01

D E C I S I O N
of Technical Board of Appeal 3.2.01
of 19 September 2019

Appellant: STILL GmbH
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Decision under appeal: **Decision of the Opposition Division of the
European Patent Office posted on 23 August 2017
rejecting the opposition filed against European
patent No. 2565149 pursuant to Article 101(2)
EPC.**

Composition of the Board:

Chairman G. Pricolo
Members: J. J. de Acha González
A. Jimenez

Summary of Facts and Submissions

I. The appeal of the opponent lies against the decision of the Opposition Division concerning the rejection of the opposition against the European patent 2 565 149.

II. In its decision, the Opposition Division referred inter alia to the following document:

E1: DE 10 2005 058 400 A1.

With its statement of grounds of appeal the appellant further submitted:

E7: DE 199 49 351 A1.

III. Oral proceedings were held before the Board on 19 September 2019.

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

The respondent (patent proprietor) requested that the appeal be dismissed (main request), subsidiarily that the patent be maintained in amended form on the basis of one of the auxiliary requests 1 to 5 as filed during opposition proceedings with letter dated 14 September 2016.

IV. Claim 1 as granted reads as follows (feature numbering as used by the parties and the Opposition Division in its decision):

- (a) "A materials handling vehicle comprising:
- (b) a frame (20) comprising an operator's compartment (30);
- (c) wheels (58, 74) supported on said frame (20);
- (d) a traction motor (72) coupled to one of said wheels (58) to effect rotation of said one wheel (58);
- (e) a steer-by-wire system (80) associated with a steerable wheel (74) to effect angular movement of said steerable wheel (74) about a first axis, said steer-by-wire system (80) comprising:
- (f) a control handle (90) capable of being moved by an operator;
- (g) a steer motor (120) coupled to said steerable wheel (74) to effect angular movement of said steerable wheel (74) about the first axis;
- (h) control apparatus (200) coupled to said steer motor (120) to generate a first drive signal to said steer motor (120) to effect angular movement of said steerable wheel (74) about the first axis and coupled to said traction motor (72) to generate a second drive signal to said traction motor (72) to control its speed;
- (i) **characterized in that** said control apparatus (200) varies said first drive signal to said steer motor (120) as a function of the speed of said traction motor (72) so as to vary a speed limit of said steer motor (120)."

Claim 1 of the first auxiliary request is identical to claim 1 as granted.

The wording of the second to fifth auxiliary requests has no bearing on the present decision.

Reasons for the Decision

1. Main request - inventive step
 - 1.1 The subject-matter of claim 1 as granted does not involve an inventive step in view of E1 in combination with common general knowledge of the skilled person (Article 56 EPC).
 - 1.2 The subject-matter of claim 1 differs from the disclosure of E1 in features (b), (f) and (i). Regarding these features the Board - in line with the respondent - notes that the speed of the traction motor can only be seen as the rotational speed of its output shaft and that feature (i) is not to be read as defining that the controller is suitable for varying the speed limit of said steer motor. The controller of the vehicle controls the first signal as claimed and is not merely suitable for it. The functionality claimed is indeed carried out by the control apparatus of the vehicle.

The appellant defended that these features were inevitably disclosed in E1, when arguing on novelty of the subject-matter of granted claim 1, and that the interpretation by the Board and the respondent of the speed of the traction motor as well as that of feature (i) of claim 1 was too restrictive. This matter can nevertheless be left aside, since the line of argument on inventive step put forward by the appellant is persuasive when considering features (b), (f) and (i) as representing the differences of the subject-matter of claim 1 with respect to E1 and when interpreting the

mentioned features the way the Board and the respondent do.

In its reply, the respondent further considered that E1 did not even disclose a materials handling vehicle (feature (a)). This is not shared. E1 clearly refers to an industrial truck which includes the disclosed drive and steering unit in one of its wheels 10 (see for instance par. [0024] of E1).

- 1.2.1 As regards features (b) and (f) E1 generally refers to an industrial truck including the disclosed traction and steering unit. E1 does not thus specify the kind of industrial truck including the unit. However, these features cannot justify an inventive step since it is notorious knowledge of the skilled person that industrial trucks can be of well known different types, namely trucks running automatically controlled, found usually in modern factories, or trucks driven by an operator sitting on them, or even standing behind them, used for the displacement of stock goods. Consequently, an industrial truck with an operator's compartment, i.e. with feature (b), represents an obvious alternative for the skilled person when reading E1. Accordingly, feature (f) is a straightforward consequence of feature (b), since the operator in the compartment would drive the industrial vehicle using a control handle.

The respondent alleged that the unit disclosed in E1 was not designed to be mounted on a typical forklift truck so that the skilled person would not provide it in an industrial truck being driven by an operator sitting on it. This was apparent from the reference to E7 in E1 (see par. [0002]) which was directed to automatically controlled vehicles such as robots, or

vehicles guided by an operator, such as shopping trolleys, wheelchairs or hospital beds (see column 2, lines 51 to 64 of E7).

However, E1 refers to ground conveyors in general (see par. [0001]) and does not either explicitly nor implicitly limit the applicability of the traction and steering unit to a specific type of industrial truck. Moreover, even though in the cited passage of E7 examples of application of a plurality of wheel modules are disclosed, it is not limited to those examples. According to column 1, lines 1 to 23 of E7, the wheel modules are used for mounting on vehicles of all kinds and E1 specifically refers to industrial vehicles.

- 1.3 Regarding feature (i), E1 discloses that the steering speed of the steer motor is made dependent on the vehicle speed. The view of the appellant is shared that varying a speed limit of the steer motor as a function of the vehicle speed of the traction motor is a consequence of making the steering speed dependent on the vehicle speed. This function is carried out by the processors (control apparatus; see par. [0015] of E1) which send a drive signal according to a given specific vehicle speed to the steer motor in order to drive it at the steering speed resulting from the defined dependency. This specific associated steering speed represents a limit, whatever the value is. If the steering speed is a function of the vehicle speed then, as a consequence, the steering speed limit is varied because the steering speed is limited to the value resulting from the dependence on the vehicle speed.

The respondent alleged that setting a steering motor speed limit based on a traction motor speed is distinct from setting a steering motor speed. The Board does not

concur. When controlling the steering speed in order to make it dependent on the vehicle speed (E1) or traction motor speed (patent), it only can refer to a steering speed limit. The steering speed could for instance be set low for high vehicle speeds and high for low vehicle speeds. The corresponding steering speed is indeed a limit implemented by the controller which would not drive the steering motor above the set steering speed for a given vehicle speed. This is also the case in the wording of feature (i) where the control apparatus varies the drive signal so as to vary a speed limit of the steer motor.

Consequently, according to E1 the control of the steering speed is carried out as a function of the vehicle speed and not as a function of the speed of the traction motor. In this respect E1 discloses a sensor for the traction motor speed (see par. [0013] to [0015]) but is silent on how the vehicle speed is determined and on the purpose of the traction motor speed sensor. The skilled person when reading E1 and implementing the dependency of the steering speed on the vehicle speed would then be confronted with a filling the gap problem on how to implement the measuring of the vehicle speed.

The Board concurs with the appellant that one of the possible ways of "filling the gap" which would readily occur to the skilled person would be to use the provided rotational speed sensor to determine the vehicle speed since these two speeds are clearly related.

The skilled person would thus arrive at the claimed subject-matter without the need of being prompted by any suggestion or hint in a document but by only

relying on his common general knowledge for solving the posed objective technical problem.

The Board does not share the view of the respondent that this line of argumentation is based on hindsight since it belongs to common general knowledge of the skilled person to determine a vehicle speed based on a rotational speed of its motor.

2. First auxiliary request

Claim 1 of the first auxiliary request is identical to claim 1 as granted. Consequently, its subject-matter does not involve an inventive step for the same reasons as presented above (Article 56 EPC).

3. Second to fifth auxiliary request

These requests have not been taken into account by the Board pursuant to Article 12(2) and (4) RPBA (Rules of Procedure of the Boards of Appeal OJ EPO 2007, 536).

With the reply to the statement of grounds of appeal, the respondent requested that, in the event that the Board did not find the claims of the Main Request to be allowable, the Patent be maintained in amended form, as per the claims of the First, Second, Third, Fourth or Fifth Auxiliary Requests filed during the opposition proceedings on 14 September 2016. No submissions on the merits of the case were made either in the reply to the statement of grounds of appeal or the letter of 1 August 2019. It was merely asserted without any explanation that the subject-matter of these requests was novel and inventive over the cited prior art and that the requirements of Articles 76(1), 123(2) and 123(3) EPC were satisfied for those claim sets also

(see point 9.2 of the reply and point 7.2 of the letter). The respondent further alleged that it was implicit from the reply and the mentioned letter that the explanations were those submitted with the letter of 14 September 2016 during the opposition proceedings.

Pursuant to Article 12(2) RPBA the statement of grounds of appeal and the reply shall contain a party's complete case. They shall set out clearly and concisely the reasons why it is requested that the decision under appeal be reversed, amended or upheld, and should specify expressly all the facts, arguments and evidence relied on.

Further according to Article 12(4) RPBA everything presented by the parties under (1) shall be taken into account by the Board if and to the extent it relates to the case under appeal and meets the requirements in (2) (highlight by the Board).

According to the Case Law of the Boards of Appeal, auxiliary requests which were not substantiated by the respondent in the reply, in the sense that arguments were put forward as to why the amended sets of claims overcome the objections raised by the appellant against the main request in the statement of grounds of appeal, do not meet the requirements stipulated in Article 12(2) RPBA (see Case Law of the Boards of Appeal, 9th edition 2019, V.A.4.12.5, and in particular T 1890/09, reasons 4, T 217/10, reasons 5, and T 89/16, reasons 2).

Also, according to established Case Law, appeal proceedings are not a continuation of the opposition proceedings. Accordingly, the respondent cannot expect the Board to make investigations of its own as to why the submissions made during the opposition proceedings

with respect to these auxiliary requests address the objections presented by the appellant in the statement of grounds of appeal. Even if the submissions made in the mentioned letter, to which the respondent failed to explicitly refer in the reply, were to be considered, the Board cannot see how these submissions could possibly address the objections and arguments subsequently raised on inventive step by the appellant in the statement of grounds of appeal.

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:



A. Vottner

G. Pricolo

Decision electronically authenticated