Datasheet for the decision  
of 12 June 2013

Case Number: T 2139/10 - 3.2.03  
Application Number: 99117449.1  
Publication Number: 1039037  
IPC: E01C 23/088, B62D 11/20, B62D 7/04  
Language of the proceedings: EN  
Title of invention: Heavy vehicle for breaking up ground with retracting and steering rear wheels  
Patent Proprietor: CATERPILLAR PAVING PRODUCTS INC.  
Opponent: Wirtgen GmbH  
Headword: -  
Relevant legal provisions: EPC Art. 123(2)  
Keyword: "Added subject-matter (no) ; deletion of features (no)"  
Decisions cited: -  
Catchword: -
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DEcision
of the Technical Board of Appeal 3.2.03
of 12 June 2013

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Decision under appeal: Decision of the Opposition Division of the European Patent Office posted 3 September 2010 revoking European patent No. 1039037 pursuant to Article 101(3)(b) EPC.

Composition of the Board:
Chairman: U. Krause
Members: G. Ashley
K. Garnett
Summary of Facts and Submissions

I. European patent EP-B1-1 039 037 concerns a heavy vehicle having retractable rear wheels or tracks; in order to improve the turning ability of the vehicle, the rear wheels or tracks can be steered. Grant of the patent was opposed on the grounds that the claimed subject-matter lacked an inventive step (Article 100(a) EPC), and that the patent contained subject-matter which extended beyond the content of the application as originally filed (Articles 100(c) and 123(2) EPC).

II. The Opposition Division came to the conclusion that the claims of the patent contravened Article 123(2) EPC and hence decided to revoke the patent; issues under Article 100(a) EPC were not considered. The decision was posted on 3 September 2010.

III. The Patent Proprietor (hereafter the Appellant) filed notice of appeal on 7 October 2010, paying the appeal fee on the same day. A statement containing the grounds of appeal was filed on 3 January 2011.

IV. The Respondent (the Opponent) withdrew the opposition (see letter dated 21 December 2011).

V. In accordance with Article 15 of the Rules of Procedure of the Boards of Appeal, the Board issued a preliminary opinion of the case, together with a summons to oral proceedings. In response (letter dated 27 May 2013) the Appellant submitted new arguments and five sets of claims to be considered as auxiliary requests.
VI. Requests

The Appellant requests that the above decision be set aside and the case be remitted to the Opposition Division for further prosecution on the basis of the patent as granted or on the basis of one of five auxiliary requests filed with the letter of 27 May 2013.

VII. Claims

Granted claim 1 is based on claim 1 of the original application (EP-A-1 0039 037), with the following deletions and underlined additional text:

"1. Machine (1) for breaking up ground, including:

- said machine (1) having a frame (2) supported by means of for breaking up the ground and being connected to said frame (2), at least one driver's cab made out of said frame, at least one pair of steerable front wheels or tracks (3, 3') and by at least one pair of rear wheels or tracks (4, 4') adapted to support said frame (2), a traction systems supported by said frame (2) and adapted to for rotate one or more of said wheels or tracks (3, 3', 4, 4'), and a maneuvering (sic) means (10) for steering said front wheels or tracks (3, 3') and being accessible from said cab (5),

wherein at least one rear wheel or track (4, 4') is steerable about a vertical steering axis (13) in response to said maneuvering means (10),

characterised in that
at least one of said rear wheels or said rear tracks (4, 4') is pivotable between an extended position and a retracted position relative to said frame (2); and

wherein said at least one rear wheel or track (4, 4') is steerable about a vertical steering axis (13) in response to said maneuvering means (10) and to a position signal indicating that said at least one rear wheel or track (4, 4') is in said retracted position.

at least one of said rear wheels or said rear tracks has a horizontal axis (7) belonging to a chassis (8) being an integral part of said frame (2) and provided with at least one first actuator (9) that works with manoeuvring systems (10) accessible from said driver's cab (5) to rotate said rear wheel or track (4) around a vertical axis (13) while turning the front wheels or tracks (3, 3') of the machine."

Dependent claims 2 to 17 describe preferred embodiments of the machine of claim 1.

VIII. Submissions of the Appellant

(a) The Opposition Division considered that deletion of the following feature from claim 1 of the application was contrary to Article 123(2) EPC:

"...at least one of said rear wheels or said rear tracks (4) has a horizontal axis (7) belonging to a chassis (8) being an integral part of said frame (2) and provided with at least one first actuator (9) that works with manoeuvring systems (10) ... ."
The Appellant submitted that the mere recital of a feature in a claim of the application was not a reason for asserting that it was essential for the invention, otherwise no feature could ever be removed from an independent claim as originally filed. The passages in the description cited by the Opposition Division as evidence of the essential nature of the feature were reciting the wording of claim 1 in order to comply with Article 84 EPC, and hence it was improper to use such passages as an indication of the importance of the features.

In determining what is essential, the application as a whole must be considered. The problem set out in the application is that when the machine turns with retracted rear wheels or tracks, they scrape the ground with considerable resistance. This is overcome by steering at least one of the rear tracks or wheels, and hence this is the essential feature of the invention. Although the use of an actuator for steering the rear wheel or track is an obvious measure, this relates to the implementation of the inventive concept.

(b) The Opposition Division also considered that the feature of steering a rear wheel or track in response to both the manoeuvring means and a position signal indicating that the rear wheel or track is in said retracted position was not disclosed in the application as originally filed.

The Appellant submitted that in considering the teaching of the application as a whole, the
skilled person would realise that the position signal plays a role in steering the rear wheel or track.

The pivotable rear wheel or track must be steered when in the retracted position, but it can be steered when in the extended position. The position signal enables these two situations to be distinguished.

The skilled person is taught that the electronic control unit (35) co-ordinates the operation of travel switch (36), the potentiometric detectors (33) and (34) and solenoid valves (31') and (31") for controlling the turning angles of both the front and rear tracks. This means that the travel switch (36), which detects whether the rear wheels or tracks are in the retracted position, plays a role in the control of the turn.

Although the rear wheels or tracks must be steered in the retracted position, the invention also allows for steering when they are in extended position. Steering in the retracted and extended positions is different; it is based on the geometry of the running gear and must be adjusted accordingly. Hence, even if the rear wheels or tracks are to be steered in both retracted and extended positions, the steering is still based on a signal indicating the position of the rear wheel or track.
Reasons for the Decision

1. The appeal is admissible.

2. Article 100(c) EPC / Article 123(2) EPC

2.1 The Opposition Division revoked the patent because it was of the opinion that it contained subject-matter extending beyond the content of the application. Two reasons were given for the decision. The first one was that an essential feature had been deleted from claim 1 of the application. The second reason was that a feature added to the claim had not been disclosed in the application.

2.2 First Reason

2.2.1 The Opposition Division was of the opinion that the following feature was presented in the application as being essential for the invention:

"...at least one of said rear wheels or said rear tracks (4) has a horizontal axis (7) belonging to a chassis (8) being an integral part of said frame (2) and provided with at least one first actuator (9) that works with manoeuvring systems (10)"

Deletion of this feature from claim 1 was, in the view of the Opposition Division, contrary to Article 123(2) EPC. It was argued (paragraphs 1 to 3 on page 5 of the contested decision) that the problem addressed by the invention is that, when turning, the retracted rear wheel or track scrapes the ground. The proposed solution is to steer the rear wheel or track, for which
a steering actuator capable of rotating the rear wheels or tracks around a vertical axis is indispensable. The fact that this feature was part of the characterising portion of claim 1 of the original application was seen as further evidence that it was essential for the invention.

2.2.2 The Board agrees with the argument of the Appellant, that the mere fact that a feature has been recited in a claim is no reason for concluding that it is essential for the invention. What is important is the understanding of essential features that the skilled person would derive from the application as a whole.

2.2.3 The principal teaching of the patent application is that the problem of retracted rear wheels or tracks scraping on the ground when the vehicle turns is solved by being able to steer one of the rear wheels or tracks (paragraphs [0012] to [0014] of the published application). This feature is included in claim 1 of both the application and of the granted claim.

In claim 1 of the granted patent, it is said that "... at least one rear wheel or track is steerable about a vertical steering axis...". Claim 1 of the application goes on to define a means by which steering of the rear wheel or track can be achieved, ie by using an actuator that works with the manoeuvring means in the cab. Although, as argued by the Appellant, this is the most obvious way of steering the rear wheels or tracks, the exact means by which the rear wheels or tracks can be steered is not essential for achieving the invention; what is important is that the rear wheels or tracks are
steerable. Consequently, deletion of the feature in question does not infringe Article 123(2) EPC.

2.3 Second Reason

2.3.1 An additional reason given by the Opposition Division for its decision was that, although the original application discloses steering the rear wheel or track in response to the manoeuvring means, it does not disclose steering also in response to a position signal indicating that the rear wheel or track is in the retracted position.

2.3.2 This issue concerning Article 123(2) EPC arises, as nowhere in the application is it explicitly stated that steering is carried out in response to such a position signal. However, the Appellant argues that on the basis of the disclosure of the application as a whole, the skilled person would immediately recognise that this is the case.

As mentioned above, the patent addresses the problem of rear wheels or tracks in the retracted position scraping on the ground when the vehicle turns, and proposes the solution of steering at least one of the retracted wheels or tracks.

It is thus clear that for the invention to function the rear wheel or track must be steered when it is in the retracted position.

Figure 7 is a control diagram showing the hydraulics for the tracks, and the wiring of the control unit. The degree of turn of the front and rear tracks is detected
by potentiometers (34) and (33) respectively. A position signal from travel switch (36) detects when the rear track is in its retracted position (paragraph [0047] of the application). The potentiometers (34) and (33) and the travel switch (36) are connected to control unit (35), which co-ordinates their operation and controls the turn (paragraph [0042]).

Given that the aim is to steer the rear wheel or track when it is in the retracted position, and information about the position of the rear track is communicated to the control unit that co-ordinates and controls the turn, it is reasonable to conclude that steering of the rear wheel or track is conducted in response to a position signal indicating that it is in the retracted position.

2.3.3 The Opposition Division was of the view that the mere fact that the travel switch is wired to the control unit does not necessarily mean that the rear wheel or track is steerable in response to a signal indicating that it is in the retracted position.

Whilst the position signal may indeed merely inform the driver of the position of the rear wheels or tracks, this nevertheless has to be considered in the context of the invention, ie that the rear wheels or tracks have to be steered when retracted. With this in mind, the skilled person would immediately realise that a control unit, responsible for steering the rear wheels or tracks and which receives a signal indicating whether these are extended or retracted, would act upon this signal.
2.3.4 According to paragraph [0048], the rear track can also be steered when it is in the extracted position. The Opposition Division viewed this as evidence that the retracted position is not a condition which is to be taken into account for steering the rear wheel or track (last paragraph on page 5 of the decision).

However, use of the word "also" in paragraph [0048] indicates that the rear track must at least be steered when it is in the retracted position, and this is indicated by the position signal, i.e., steering is carried in response to the position signal.

In addition, as argued by the Appellant, the steering of the rear wheels or tracks in the retracted and extended positions is different; it is based on the geometry of the running gear and must be adjusted according to the arrangement of the rear wheels or tracks. Hence, even if the rear wheels or tracks are to be steered in both retracted and extended positions, the steering would still be based on a signal indicating the position of the rear wheel or track.

2.3.5 The Board therefore concludes that the amendments contained in claim 1 of the granted patent meet the requirements of Article 123(2) EPC.

3. Remittal

Inventive step has not been considered by the Opposition Division, and the Appellant requests that, should the claims be found to comply with Article 123(2) EPC, the case be remitted to the Opposition Division for further prosecution.
Although the Opponent has withdrawn its opposition, attention is drawn to Rule 84(2) EPC, which provides for continuation of opposition proceedings under such circumstances should the Opposition Division consider that any of the outstanding issues are prejudicial to the maintenance of the patent.

4. Auxiliary Requests / Oral Proceedings

Since the main request of the Appellant is allowable and the case is to be remitted to the Opposition Division in accordance with the request of the Appellant, there is no reason to consider the auxiliary requests, nor is it necessary to hold oral proceedings.
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 for further prosecution.

The Registrar: 

The Chairman:

C. Spira 

U. Krause