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Datasheet for the decision of 19 April 2012

Case Number: T 2220/10 - 3.2.08

Application Number: 05425228.3

Publication Number: 1679452

IPC: F16D 65/092

Language of the proceedings: EN

Title of invention:
Disc brake pad for railway vehicles with special arrangement of resiliently attached friction elements

Applicant:
Cofren S.r.L.

Opponent:
-

Headword:
-

Relevant legal provisions:
EPC Art. 84, 123(2)

Keyword:
"Clarity (main request, no)"
"Added subject-matter (First and second auxiliary request)"

Decisions cited:
-

Catchword:
-

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Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 2220/10 - 3.2.08

D E C I S I O N
of the Technical Board of Appeal 3.2.08
of 19 April 2012

Appellant: (Applicant)
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Decision under appeal:
Decision of the Examining Division of the European Patent Office posted 24 June 2010 refusing European patent application No. 05425228.3 pursuant to Article 97(2) EPC.

Composition of the Board:

Chairman: T. Kriner
Members: M. Alvazzi Delfrate
I. Beckedorf

Summary of Facts and Submissions

I. By decision posted on 24 June 2010 the examining division refused the European patent application No. 05 425 228.3 on the grounds of Article 84 EPC.

II. The appellant lodged an appeal against this decision on 11 August 2010, paying the appeal fee on the same day. The statement setting out the grounds of appeal was filed on 17 September 2010.

III. Oral proceedings before the board of appeal were held on 19 April 2012.

The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of one of the sets of claims filed as main request and first auxiliary request with letter dated 6 March 2012 and filed as second auxiliary request during the oral proceedings.

IV. Claim 1 of the main request reads as follows:

"A disc brake pad (1) to be used in railway field and comprising a base plate (2), on which elastic support elements (4) for supporting friction elements (3) are fixed; said friction elements (3) being mounted in pair on the ends of support elements (4); said supports elements (4) being fixed spaced on the base plate (2) by fixing means (5), in such a way that the friction elements (3) are placed on the projecting and freely movable ends of said support elements (4); said disc brake pad (1) being characterized in that said support elements (4) are placed on said base plate (2) in such

a way that all line segments linking two centres of the two friction elements (3) of respective pairs of friction elements (3) mounted on a single support element (4) can be oriented at the same time with their respective midpoint perpendicular to a radius passing through the centre of a brake disc on which the disc brake pad is applied."

Claim 1 of the first auxiliary request reads as follows:

"A disc brake for railway comprising a brake disc and a disc brake pad (1); said disc brake pad (1) comprising a base plate (2), on which elastic support elements (4) for supporting friction elements (3) are fixed; said friction elements (3) being mounted in pair on the ends of support elements (4); said supports elements (4) being fixed spaced on the base plate (2) by fixing means (5), in such a way that the friction elements (3) are placed on the projecting and freely movable ends of said support elements (4); said disc brake assembly being characterized in that said support elements (4) are placed on said base plate (2) in such a way that line segments linking two centres of the friction elements (3) of respective pairs of friction elements (3) mounted on a singular support element (4) are oriented with their respective midpoint perpendicular to a radius passing through the centre of said brake disc."

Claim 1 of the second auxiliary request differs from claim 1 of the first auxiliary request by the addition of the wording

"every friction elements having an irregular polygonal shape of five sides and its centre is defined as the centre of a circle inner to the irregular polygonal shape and tangent to at least four of the five sides."

V. The arguments of the appellant can be summarised as follows:

Main request- Clarity

Claim 1 of the main request was directed to a disk brake pad comprising support elements on which friction elements were mounted. Its characterising part defined the orientation of the support elements on the disc brake pad by reference to a brake disc. This definition applied to all the support elements and not to only one of them. As a consequence, said orientation was clearly defined with respect to any brake disc, although a brake disc was not part of the claimed product. Accordingly, claim 1 did not lack clarity.

First auxiliary request

Figures 1, 3 and 5 of the application as originally filed showed arrangements wherein, for each support element, the line segment linking the centres of the two friction elements mounted on each support element was oriented perpendicular to the radius passing through the centre of the brake disc and the midpoint of said segment. Hence, the corresponding feature according to the characterising part of claim 1 of the first auxiliary request, although not recited in the description and the claims as originally filed, was disclosed in the drawings. Since it was possible to

base an amendment on the drawings as originally filed, the amendment was allowable and the application had not been amended contrary to Article 123(2) EPC.

Second auxiliary request

Claim 1 of the second auxiliary request was limited to the embodiment shown in Figure 5, which depicted an arrangement wherein clearly all the support elements were oriented in accordance with the characterising part of claim 1. In order to define the specific shape of the friction elements of said embodiment and their centre, the claim specified that every friction element had an irregular polygonal shape of five sides, whose centre was defined as the centre of a circle inner to the irregular polygonal shape and tangent to at least four of the five sides. Since said circle was shown in one of the friction elements of Figure 5, situated on the left of the element with the reference 3, this definition did not represent an amendment contrary to Article 123(2) EPC.

Reasons for the Decision

1. The appeal is admissible.

2. Main request

Claim 1 of the main request is directed to a disk brake pad comprising a base plate, on which support elements with pairs of friction elements mounted on them are fixed. The way in which said support elements are placed on the base plate is essential for achieving the

noise reduction aimed at in the present invention (see paragraphs [0008] and [0009]). The characterising portion of claim 1 attempts to define this arrangement by reference to the orientation of the support elements in relation to a brake disc.

However, the brake disc itself is not part of the claimed product. Moreover, neither its dimensions nor the way in which the disc brake pad is to be arranged on it are defined in the claim.

It is true that the definition of the characterising part of claim 1 applies to all the support elements and not to only one of them. However, as the claim does not state their number, pads with two support elements are also within its scope. For those pads, whatever the orientation of the support elements is (with the exception of two non-aligned parallel support elements), it is always possible to find a brake disc and an arrangement of the pad on it, such that the line segments linking the two centres of the friction elements of the pair of friction elements mounted on them are oriented perpendicular to the radii passing through the centre of the brake disc and the midpoints of said segments. Accordingly, the claim fails to define how the support elements are placed on the pads and, as a consequence, lacks clarity. For this reason the main request is already not allowable.

3. First auxiliary request

Claim 1 of the first auxiliary request refers to a disc brake which includes a brake disc. Therefore, the objection above is overcome. This claim comprises the

feature according to which the support elements are placed on the base plate in such a way that line segments linking two centres of the friction elements of respective pairs of friction elements mounted on a singular support element are oriented with their respective midpoint perpendicular to a radius passing through the centre of said brake disc (this feature is also comprised in claim 1 of the main request).

Neither the originally filed claims nor the description state this feature. The appellant submitted that said amendment was based on Figures 1, 3 and 5, which showed arrangements wherein, for each support element, the line segment linking the centres of the two friction elements mounted on the support element was oriented perpendicular to the radius passing through the centre of the brake disc and the midpoints of said segments.

It is true that it is possible to amend a claim by adding a feature disclosed only in the drawings. However, according to the established case law of the boards of appeal this possibility is limited to the inclusion of features the structure and function of which are clearly, unmistakably and fully derivable from the drawings by the skilled person and not at odds with the other parts of the disclosure, nor can any element be dropped (see Case Law of the Boards of Appeal of the European Patent Office, 6th edition 2010, III.A.5, first paragraph).

In the present case these conditions are not satisfied. Far from clearly and unmistakably disclosing arrangements in accordance with claim 1, Figures 1 and 3 clearly show that not all the support elements are

arranged as submitted by the appellant. In Figure 1 at least the support element with the reference 4 and the support element fixed by a rivet with the reference 5 exhibit line segments linking the two centres of the friction elements which are not oriented perpendicular to the radii passing through the centre of the brake disc and the midpoints of said segments. The same is true with respect to Figure 3 at least for the support element with a friction element indicated by the reference 3. As to Figure 5, it shows a specific embodiment wherein the friction elements have the shape of an irregular polygon with five sides, a feature which is not comprised in claim 1 of the first auxiliary request. Moreover, as it is not clear which point could be regarded as the centre of said irregular polygon, the feature according to the characterising part of claim 1 is not clearly and unmistakably disclosed in Figure 5.

Therefore, the first auxiliary request comprises amendments contrary to Article 123(2) EPC and is not allowable for this reason.

4. Second auxiliary request

Claim 1 of the second auxiliary request has been amended to limit the shape of the friction elements to an irregular polygonal shape of five sides and to define the centre of said friction elements as the centre of a circle inner to the irregular polygonal shape and tangent to at least four of the five sides.

The appellant indicated as the basis for these amendments Figure 5, which showed, for the friction

element on the left of the element with the reference 3, a circle inner to said friction element and tangent to four of its five sides.

This view cannot be shared. It is true that Figure 5 depicts, in the friction element on the left of the element with the reference 3, a draft of a circle. However, said draft is incomplete and unclear, since not all the points of contact or intersection with the sides of the friction elements are shown. Hence, a circle tangent to four of the five sides of the friction element is not clearly, unmistakably and fully derivable from said drawing. On the contrary, there appears to be no contact at all with the drafted circle for at least two sides of the friction element. As a consequence, the second auxiliary request is also not allowable on the basis of Article 123(2) EPC.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

V. Commare T. Kriner