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Aktenzeichen / Case Number / N<sup>o</sup> du recours : T 423/88 - 3.2.1

Anmeldenummer / Filing No / N<sup>o</sup> de la demande : 83 104 328.6

Veröffentlichungs-Nr. / Publication No / N<sup>o</sup> de la publication : 0 093 451

Bezeichnung der Erfindung: Improvements to the breaker structure of  
Title of invention: motor-vehicle tyres.  
Titre de l'invention :

Klassifikation / Classification / Classement : B60C 9/18, B60C 9/22

### ENTSCHEIDUNG / DECISION

vom / of / du 20 November 1990

Anmelder / Applicant / Demandeur : Pirelli Coordinamento Pneumatici S.p.A

Patentinhaber / Proprietor of the patent /  
Titulaire du brevet :

Einsprechender / Opponent / Opposant :

Stichwort / Headword / Référence :

EPÜ / EPC / CBE Art. 84

Schlagwort / Keyword / Mot clé : "Clarity of claim"  
"Remittal to first instance"

Leitsatz / Headnote / Sommaire



Case Number : T 423/88 - 3.2.1

**D E C I S I O N**  
of the Technical Board of Appeal 3.2.1  
of 20 November 1990

**Appellant :** Pirelli Coordinamento Pneumatici S.p.A.  
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**Decision under appeal :** Decision of Examining Division 075  
of the European Patent Office dated  
29 March 1988 refusing European  
patent application No. 83 104 328.6  
pursuant to Article 97(1) EPC

**Composition of the Board :**

**Chairman :** F. Gumbel  
**Members :** P. Alting van Geusau  
F. Benussi

## Summary of Facts and Submissions

- I. European patent application No. 83 104 328.6 filed on 2 May 1983 and published on 9 November 1983 was refused by a decision of the Examining Division dated 29 March 1988.
- II. The decision was based on Claims 1 to 10 filed on 12 November 1986. The reason given for the refusal was that the subject-matter of Claim 1 was not clear within the meaning of Art. 84 EPC, in particular when considering the parameter "dynamic shear modulus after a period of 500,000 cycles" and hence this claim was inadmissible.
- III. An appeal was lodged against this decision on 27 May 1988 with payment of the appeal fee on the same day. The Statement of Grounds of Appeal was submitted on 18 July 1988.
- IV. In a communication dated 21 June 1990 the Board expressed its preliminary opinion that Claim 1 did not meet the requirements of Art. 84 EPC insofar as it was not supported in its broadest sense by the description and some points of lack of clarity existed. The Appellant was further informed that should the Appellant file a new Claim 1 which meets the requirement of Art. 84 EPC the application might be referred back to the Examining Division for further prosecution.
- V. With letter of 27 August 1990 the Appellant filed a new Claim 1 and further stated that a subsidiary request for oral proceedings was withdrawn under the provision that the application would be referred back to the Examining Division for further prosecution.

Thus, by implication the Appellant requests that the impugned decision is set aside and the examining

procedure is prosecuted on the basis of Claim 1 as filed on 27 August 1990, Claims 2 to 10 filed on 12 November 1986 and the further application documents as originally filed.

VI. In support of his request the Appellant put forward the following arguments.

Considering clarity, it is of no importance whether or not a parameter used in a claim to define its subject-matter is "usual in the art". Rather it is only important whether the present application gives a clear teaching in which manner the said parameter can be checked or tested. In the description of the present application page 7, line 31 to page 10, line 25, there is explained in great detail the manner in which the said parameter can be determined. The described operation or method for determining said parameter is also clearly applicable for all materials used in the field of question. Thus, the expert in this field when reading the present application can easily determine whether any tested material meets the present invention as defined in Claim 1 including the parameter "dynamic shear modulus after 500,000 cycles" objected to by the Examining Division.

In view of such clear description of the said parameter in the present description there is no danger at all that by using this parameter there can exist a disguise of lack of novelty, as alleged by the Examining Division. Using the test procedure as set out in the description it is quite clear that the claimed product can easily be distinguished reliably from known products which may not fall within the scope of Claim 1.

When defining a feature in a claim it is of course necessary to choose the form that is objectively the most

precise. However, considering the present invention as a whole it cannot be seen how the present basic solution, to maintain the dynamic shear modulus as much as possible at its original value, could be defined more precisely than it has been done in present Claim 1 without unduly limiting the scope of the invention.

In this respect reference was made to the Technical Board of Appeal decision T 68/85 (OJ EPO 1987, 228).

VII. Current Claim 1 reads as follows:

"1. Tyre for vehicle wheels, comprising a radial carcass (3), a tread band (2) disposed in the crown of said carcass and an annular reinforcing structure (breaker) that is circumferentially inextensible, interposed between said carcass (3) and said tread band (2) and having substantially the same width as said band (2), said annular reinforcing structure comprising a single layer (1) of high modulus elastomeric material, reinforced with a strip of cord (4) of a tension resistant material, disposed parallel to each other and oriented according to an angle comprised between 0° and 10° with respect to the circumferential direction of the tyre, said elastomeric material having a dynamic modulus for shearing stresses under cyclic deformation of 4% at a frequency of 50 Hz, after a conditioning of at least 100 cycles and at a temperature of 60°C, comprised within 25 and 35 Megapascals and an index of loss by hysteresis  $\tan \delta$  measured under the same conditions of said modulus, of not over 0.10,

c h a r a c t e r i z e d by the fact that said elastomeric material is selected to comprise the further characteristic of variation of the value of its dynamic modulus, after a period of endurance of 500,000 cycles under a deformation of 4% at a temperature of 60°C,

comprised within 20% of the initial value, measured under the same conditions."

#### Reasons for the Decision

1. The appeal is admissible.
2. The current Claim 1 is essentially a combination of the original Claims 1 and 3.

In order to take account of the points of clarity raised by the Board, Claim 1 now includes that the annular reinforcing structure comprises a single layer of high modulus elastomeric material as stated in the description. Further the term "in the vicinity" in the penultimate line of the original claim was amended to read "within" in order to cover variations which are not close to the value of 20%, such as the value of Example A. This latter amendment finds its support on page 10, second paragraph of the description as filed.

In order to meet the objection of lack of support raised by the Board, Claim 1 now includes in its characterising part the limitation to the selection of particular elastomeric compounds that lead to the wanted properties of the tyre. Such selection is directly derivable from the description of the preferred embodiments.

In these respects current Claim 1 thus meets the requirement of Art. 84 EPC.

- 2.1 The dependent Claims 2 to 10 are repetitions of the original Claims 2 and 4 to 11.

2.2 All claims thus also meet the requirement of Art. 123(2) EPC.

3. In their decision, the Examining Division objected to Claim 1 on the ground that its subject-matter was not clear within the meaning of Art. 84 EPC giving the following reasons: (see page 3 of the Examining Division's decision)

(i) The parameter "dynamic shear modulus after a period of 500,000 cycles" is not a parameter usual in the art.

(ii) The claimed product cannot be distinguished from known products.

(iii) It is not clear how the skilled man could arrive at the claimed product from the known tyre according to the preamble of Claim 1.

3.1 With respect to these points, the Board is of the following opinion:

ad (i) The parameter "dynamic shear modulus" itself is a parameter usual in the art. In this respect attention is drawn to the determination of this parameter described on pages 8 and 9 of the present application and the relating "loss tangent ( $\tan \delta$ )" determination described in GB-A-2 045 701, page 1, lines 57, 58, page 2, lines 36 to 40.

It is further considered acceptable that the applicant may define the value of the dynamic shear modulus after a number of cycles which, in the Board's opinion, defines clear circumstances for determining this parameter. In this respect the

Board follows the Appellant's view in that, as regards clarity, it is important only whether said parameter can be checked or tested. In view of the procedure set out on page 7, line 31 to page 10, line 25 of the original description of the application there is no doubt, in the Board's view, that such determination does not pose any problems to the skilled person.

Under these circumstances it is not considered necessary to evaluate the decision T 68/85 referred to by the Appellant as relevant for proving the above standpoint.

- ad (ii) By cutting elastomeric material out of a tyre and subjecting it to the relevant tests, it is, in the Board's opinion, very well possible to determine differences between known tyres and the tyre defined in Claim 1.
  
- ad (iii) Regarding this objection, the Examining Division obviously considered that Claim 1 essentially defines a tyre by stating its wanted properties without that it is immediately apparent how these features should be realised.

According to the description of the present application, it is the selection of particular rubber compounds that lead to the wanted properties of the tyre. Therefore, the tyre of Claim 1 in the Board's opinion is supported by the description only insofar as the wanted properties are realised by such a selection of rubber compounds and not by other means such as, for example, radiation or heat treatment. In its present form, however, Claim 1 is limited to include that the elastomeric material is



selected to comprise a particular dynamic modulus so that current Claim 1 meets Art. 84 EPC in this respect too (see point 2 above).

- 3.2 In its present form Claim 1 thus meets the requirements of Art. 84 EPC in all respects. No objection on this ground was put forward against the dependent Claims 2 to 10 in themselves in the contested decision and having considered these claims of its own motion the Board sees no reason to doubt the clarity of these claims either.

The Board notes that the Examining Division's opinion with respect to the substantial requirements of novelty and inventive step is not derivable from the proceedings in the first instance and the decision under appeal does not at all deal with any issue other than the sole requirement of Art. 84 EPC.

- 3.3 Under these circumstances the Board deems it appropriate to make use of the power conferred upon it by Art. 111(1) EPC to remit the case to the first instance for further prosecution.

4. If in the course of further prosecution the Examining Division should come to the conclusion that there is patentable subject-matter in the present application, it will also be necessary to adapt the description to the amended claims. Attention is further drawn to the Appellant's statement in the letter dated 27 August 1990 according to which he is not aware of any document which shows all the features of the precharacterising portion of Claim 1 but that he is of the opinion that this combination of features is common technical knowledge.

Order

For these reasons, it is decided that:

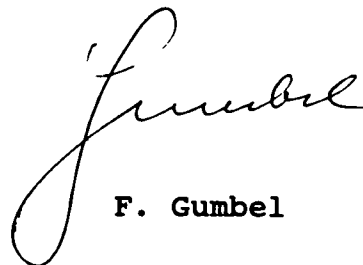
1. The decision under appeal is set aside.
2. The case is remitted to the first instance for further prosecution on the basis of Claim 1 filed on 27 August 1990 and Claims 2 to 10 filed on 12 November 1986.

The Registrar:



S. Fabiani

The Chairman:



F. Gumbel

*Handwritten initials and date*  
23/1/90