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**Datasheet for the decision
of 8 January 2015**

Case Number: T 1303/11 - 3.2.06

Application Number: 06780605.9

Publication Number: 1888353

IPC: B60C27/18

Language of the proceedings: EN

Title of invention:
ANTISKID DEVICE FOR VEHICLES

Patent Proprietor:
Agripool S.R.L.

Opponent:
Autosock AS

Headword:

Relevant legal provisions:

EPC Art. 123(2)
EPC 1973 Art. 56
RPBA Art. 13(1)

Keyword:

Amendments - added subject-matter - main request (yes)
Late-filed auxiliary requests - admitted (yes)
Inventive step - auxiliary request (yes)

Decisions cited:

Catchword:



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Chambres de recours**

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Case Number: T 1303/11 - 3.2.06

D E C I S I O N
of Technical Board of Appeal 3.2.06
of 8 January 2015

Appellant:
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Decision under appeal:

**Interlocutory decision of the Opposition
Division of the European Patent Office posted on
7 April 2011 concerning maintenance of the
European Patent No. 1888353 in amended form.**

Composition of the Board:

Chairman M. Harrison
Members: M. Hannam
W. Sekretaruk

Summary of Facts and Submissions

I. An appeal was filed by the appellant (opponent) against the interlocutory decision of the opposition division in which it found that European patent No. 1 888 353 in an amended form met the requirements of the EPC. In support of its request to set aside the decision and revoke the patent, the appellant cited:

D2 US-A-3 335 776
D4 DE-A-23 55 291
D5 DE-A-1 605 718

II. The Board issued a summons to oral proceedings including a communication containing its provisional opinion, in which it indicated *inter alia* that compliance of the subject-matter of claim 1 with the requirement of Article 123(2) EPC and that of Article 56 EPC would be a matter for discussion at oral proceedings.

III. With letter of 5 December 2014, the respondent (patentee) filed auxiliary requests 1 to 3.

IV. The appellant also filed a submission on 8 December 2014, and cited:

A8 Composites Engineering Handbook, 1997,
pages 78 to 83

V. Oral proceedings were held before the Board on 8 January 2015, during which the appellant filed:

D6 US-A-3 095 911;

and during which the respondent filed:

1. The webpage: www.treccani.it/enciclopedia/maglieria; and
2. A new auxiliary request 1 to replace auxiliary requests 1 to 3 previously on file

At the conclusion of the oral proceedings, the appellant's request was that the decision under appeal be set aside and the European patent No. 1 888 353 be revoked. The respondent's requests were that the appeal be dismissed or that the European patent be maintained on the basis of the following documents:

Claims 1 to 18, of auxiliary request 1, filed 8 January 2015;

Description cols. 1 to 6 of auxiliary request 1, filed 8 January 2015;

Figs. 1 to 4, as granted.

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

"Antiskid device (1) for vehicles including:
a band (2) suitable for surrounding at least the tread (13) of a vehicle tire, made of fabric (7) and mounting means (10) associated with said band (2) suitable for maintaining said band (2) in position around said tread (13) and for tightening said device (1) on a wheel (14) of said vehicle for preventing unintentional disengagements;
said band (2) presenting engagement means (8) in correspondence with at least a portion of an outer surface (4) of said band (2) itself for increasing the friction between said tire and a road,
characterized in that said engagement means (8) is carried out through said fabric (7) of said band (2) and in that said engagement means (8) includes relief

ribbings (9) arranged according to an angle lower than 30° with respect to a direction perpendicular to a rolling direction of said wheel (14), said fabric (7) being a knitted fabric."

Claim 1 of auxiliary request 1 reads:

"Antiskid device (1) for vehicles including:
a band (2) suitable for surrounding at least the tread (13) of a vehicle tire, made of fabric (7) and mounting means (10) associated with said band (2) suitable for maintaining said band (2) in position around said tread (13) and for tightening said device (1) on a wheel (14) of said vehicle for preventing unintentional disengagements;
said band (2) presenting engagement means (8) in correspondence with at least a portion of an outer surface (4) of said band (2) itself for increasing the friction between said tire and a road,
wherein said engagement means (8) are carried out through said fabric (7) of said band (2) and wherein said engagement means (8) include relief ribbings (9) arranged according to an angle lower than 30° with respect to a direction perpendicular to a rolling direction of said wheel (14), characterized in that said fabric (7) is a knitted fabric, and wherein said fabric (7) presents a thickness of at least 0.3 mm and said ribbings (9) present a relief of at least 0.8 mm with respect to said outer surface (4) of said fabric (7)."

VII. The appellant's arguments may be summarised as follows:

Main request

The use of the definite article 'the' in the expression 'the knitted fabric used' at the top of page 13 of the

application as originally filed indicated that a very specific fabric was disclosed as being knitted. Claim 1 however covered a large range of knitted fabrics. The specific fabric was that manufactured with a raschel-type linear textile machine, as described on page 7. The other machines disclosed on page 7, such as the rectilinear needle loom, were not necessarily knitting machines. The statements on page 6, according to which the fabric 'must' have certain attributes, was also an indication that the claimed fabric was disclosed only in a form including such attributes. Furthermore, the conical or cylindrical sections of the band on page 8, lines 3 to 5 were not to be overlooked while the mounting means disclosed from line 20 onwards were also disclosed as always being part of the invention. Consequently, the subject-matter of claim 1 did not meet the requirement of Article 123(2) EPC.

Auxiliary request 1

Regarding the admissibility of this request, it was not *prima facie* clear that at least the further characteristics of the fabric disclosed on page 6, lines 1 to 13 were not required in the claim. The issue was too complex to consider fully at such a late stage of proceedings, such that the newly filed claim 1 should not be admitted into proceedings.

The subject-matter of claim 1 lacked an inventive step when starting from D2 and combining this with the teaching of D4. Fig. 4, 5 or 6 of D2 could be used as the starting point, whereby each embodiment, when compared to the subject-matter of claim 1, solely failed to disclose a knitted fabric; the fabric thickness and ribbing relief dimension were implicitly known from D2. The objective technical problem was to provide an antiskid device with improved wear

resistance. D4 disclosed an antiskid device of a knitted construction aimed at improving durability (see page 2, first paragraph). It was thus obvious for the skilled person to replace the tape band of D2 with the knitted fabric of D4, thus solving the technical problem and reaching the subject-matter of claim 1. If the objective technical problem were to achieve a better fit of the antiskid device on the tyre, page 83 of A8 discussed the conformability of knitted yarns, such that the combination of D2 with D4 would again be obvious to the skilled person.

The subject-matter of claim 1 also lacked an inventive step with respect to a combination of D2 with D5. D5 disclosed an antiskid device manufactured on a raschel-type machine (see the last paragraph on page 3) which was thus clearly a knitted fabric.

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

Main request

It was clear from the patent description as a whole that the only fabric referred to in the patent was a knitted fabric. This was particularly elucidated through the three machine types cited on page 7 of the originally filed application being knitting machines, and Fig. 4 which clearly showed knitted ribbing in the fabric. The description of the invention from the middle of page 4 to page 5, line 8 included all necessary features of the antiskid device according to claim 1; page 5, lines 8 to 24 clearly related to a preferred embodiment of the invention and so did not have to be included in claim 1 for its subject-matter to meet the requirement of Article 123(2) EPC.

Auxiliary request 1

The amendment made to claim 1 of this request comprised the addition of granted sub-claims and so could not be considered unexpected nor was it too complex for the appellant to deal with at oral proceedings. The request should thus be admitted.

The subject-matter of claim 1 involved an inventive step when considering the cited documents. Each embodiment of D2 failed to disclose the thickness and relief dimension of the claimed fabric. Thus, even if D2 and D4 were to be combined, these attributes of the resultant fabric would be missing. Furthermore, the device of D2 was secured to the tyre through a pressure sensitive adhesive which would be ineffective for securing the net-like device of D4 to the tyre due to the reduced area of contact for adhesion. Since the antiskid device of D5 also consisted of a net-like fabric, a combination of D2 and D5 would also not be pursued by the skilled person trying to solve the technical problem of increasing the wear resistance or improving the fit of the antiskid device on a tyre.

Reasons for the Decision

1. *Main request*

1.1 *Article 123(2) EPC*

1.1.1 The subject-matter of claim 1 fails to meet the requirement of Article 123(2) EPC.

1.1.2 The subject-matter of claim 1 comprises the features of claims 1 to 3 as originally filed in combination with

the feature 'said fabric being a knitted fabric' which is extracted from page 13, lines 1 to 2. The use of the definite article 'the' in this passage of the description ('This is due to the natural elasticity of the knitted fabric used') indicates to the skilled reader that it is a specific fabric which is being described as being knitted in this passage, rather than a general reference to any knitted fabric. Since a specific fabric is clearly intended in this passage, it is held that the physical features necessarily comprised in such fabric are at least given in the broadest disclosure of a fabric according to the invention; this broadest disclosure is to be found in lines 21 to 24 of page 5, in which the fabric thickness and ribbing relief dimension are disclosed, in combination with the further features of the antiskid device disclosed from the middle of page 4 to line 8 of page 5. It thus follows that the claimed feature regarding the fabric used, which is knitted, is clearly and unambiguously disclosed to the skilled reader only in combination at least with the fabric thickness and ribbing relief dimension of the fabric.

Since the features of the fabric disclosed in lines 21 to 24 of page 5, in which the fabric thickness and ribbing relief dimension are also disclosed, are not included in the subject-matter of claim 1, this fails to meet the requirement of Article 123(2) EPC.

- 1.1.3 Regarding the respondent's argument that a single preferred embodiment was disclosed on page 5, from line 8 to 24, this is not accepted. While the passage on page 5, line 8 begins, 'In a preferred embodiment...', lines 21 to 24 on page 5 starting, 'Furthermore, the fabric...' refer more generally to the fabric of the invention, as disclosed from the middle of page 4 to

line 8 of page 5, rather than specifically to the fabric of the preferred embodiment. This is particularly apparent since the passage immediately before the preferred embodiment addresses the relief ribbings on the fabric, which is picked-up once more in the passage starting 'Furthermore, the fabric...' by providing dimensions for the ribbing relief. It thus follows that the fabric dimensions provided on page 5, lines 21 to 24 are in fact included in the broadest disclosure of 'the fabric' according to the invention and thus inextricably part of the fabric referred to as 'the knitted fabric used' on page 13.

1.1.4 The finding that these fabric dimensions are included in the broadest definition of the fabric disclosed in the context of claims 1 to 3 as filed, is further supported by the reference within the description of the first embodiment to 'a fabric 7 having the features above described' on page 9, lines 4 to 5. When referring back to the fabric which is intended here (i.e. that fabric as 'above described'), the skilled person would necessarily, as indicated above, refer to the broadest disclosure of the fabric 7 in the context of the combination of features of claims 1 to 3 as filed, which themselves make up the rest of claim 1 of the main request. In other words, the skilled person would necessarily refer to that fabric disclosed in the general portion of the description relating to the fabric from the middle of page 4 to page 5, line 8 and page 5, lines 21 to 24 when reading the expression 'the knitted fabric used' on page 13.

1.1.5 The respondent's suggestion that any fabric referred to in the patent was necessarily to be understood as solely a knitted form of the fabric, irrespective of the fabric, is not accepted. With reference to the

examples of devices on which the fabric of the antiskid device can be obtained on page 7 as originally filed, while a raschel-type linear textile machine is undisputably a knitting machine, the same cannot be said for e.g. a rectilinear needle loom, even if such a loom may also be used for knitting when provided with specific types of needles or knock-over devices to form the knitted loops. As the skilled person understands, a rectilinear needle loom is a well-known designation also for a machine used to needle or felt fabrics such as non-wovens, and is thus a machine designation not only related to knitting fabrics (see, for example, D6 which is merely an example showing a rectilinear needling machine not used for knitting). It is thus not unambiguous that when claim 1 as filed referred to the antiskid device being 'made of fabric', that this necessarily implied (when read together with page 13 and page 7) that any fabric could be knitted without implying further features to be present in the fabric or the antiskid device so-produced. The depiction of a knitted fabric in Fig. 4 also fails to prove more than that the particular fabric depicted therein, which is related to the general description of relief ribbings on page 5 rather than all fabrics encompassed by the claims, is a knitted fabric.

- 1.1.6 Regarding the appellant's contention that further features from the description are also necessary for inclusion in claim 1 in order to meet the requirement of Article 123(2) EPC, the Board finds otherwise.

The description from lines 5 to 13 on page 6 concerns the yarn used for the fabric and the yarn's resistance to wear and low temperatures. Whilst the yarn material is clearly of importance for the longevity of the fabric, the broadest disclosure of the fabric includes

features to the relief ribbings, their angle with respect to the rolling direction and the fabric thickness (see references above to pages 4 and 5); the features relating to yarn characteristics are further attributes of the fabric which are required to ensure 'an adequate action effectiveness' As such, it is unambiguous that the details given here, even when subsequently described in the same paragraph as 'must have a remarkable friction and wear resistance...' and 'it must not absorb water', do not necessarily have to be present but are merely necessary if a particular characteristic (namely 'adequate action effectiveness'), which is not stated in claim 1, is also to be ensured.

The features regarding the conical or cylindrical sections of the band on page 8, lines 3 to 5 are clearly optional for the invention as indicated through inclusion of the word 'can' in the phrase, 'the band 2 can show both a cylindrical and a conical sections' (sic) and since the description states that this is the case 'in the various embodiments of the inventive concept described' which is unambiguously referring to preferred aspects. The mere fact that the section does not state which other sections may be used in the context of the invention (as argued by the appellant) cannot be used to infer that there are no other embodiments possible.

Similarly, the skilled person would understand that the features on page 8 from line 20 onwards are not part of the invention as defined in claims 1 to 3 as filed together with the knitted fabric used. Whilst the expression 'always according to the invention' is used with respect to the mounting element in lines 20 to 24, the use of the word 'alternatively' bridging lines 24

and 25 contradicts the foregoing 'always according to the invention' such that both mounting element disclosures in this paragraph would be unambiguously understood by the skilled person as being alternative embodiments and not inextricably linked to the earlier disclosure of the fabric in the description.

1.1.7 Since claim 1 does not include features relating to the disclosure of the claimed fabric of the invention as described on page 5, its subject-matter fails to meet the requirement of Article 123(2) EPC. The main request is thus not allowable.

2. *Auxiliary request 1*

2.1 *Admittance (Article 13(1) RPBA)*

2.1.1 Article 12(2) of the Rules of Procedure of the Boards of Appeal (RPBA) specifies that the statement of grounds of appeal and reply must contain the respective party's complete case. After filing the grounds of appeal or the reply, any amendment to a party's case may be admitted and considered at the Board's discretion, which is set out in Article 13(1) RPBA, such discretion being exercised in view of *inter alia* the complexity of the new subject-matter, the current state of the proceedings and procedural economy.

2.1.2 The respondent filed auxiliary request 1 during oral proceedings. The request thus represented a change to the respondent's complete case as defined in Article 12(2) RPBA) and its admittance was to be considered at the Board's discretion under Article 13(1) RPBA.

2.1.3 As regards this request being filed at such a late stage in the appeal procedure, it was noted that only

upon receiving the Board's opinion regarding non-compliance of the main request with Article 123(2) EPC and its indication of which features it saw as necessary, did it become clear to the respondent that its previous set of auxiliary requests did not circumvent these objections. It is further noted that claim 1 of the new request comprises a combination of claims 1, 3 and 4 as granted, the added features in claims 3 and 4 as granted also corresponding to claims 5 and 6 as originally filed. The Board thus holds that, despite an independent claim comprising these added features having been filed only during oral proceedings before the Board, the appellant had been aware of these features as part of the invention since the opposition procedure. It was thus held that the new subject-matter was not of such complexity that it could not be dealt with by the appellant during the oral proceedings. Procedural efficiency was thus not adversely affected by the request being admitted.

- 2.1.4 The appellant's argument that it was not *prima facie* clear that the fabric features from page 6, lines 5 to 13 were not to be included in claim 1 in order to meet the requirement of Article 123(2) EPC is also not persuasive. As identified already for the main request under point 1.1.2 above, the disclosure of the necessary fabric in the description is included from the middle of page 4, to line 8 of page 5 in conjunction with lines 21 to 24 of page 5. It is thus solely the fabric features included in these portions of the description which are necessary for inclusion in claim 1 in order for the requirement of Article 123(2) EPC to be met. The further description from lines 5 to 13 on page 6 concerns the yarn used for the fabric and the yarn's resistance to wear and low temperatures. As stated above, these features relating to yarn

characteristics are however further attributes of the fabric, and are evidently only preferred. The Board thus sees nothing contradicting the *prima facie* allowability of the request with regard to the complexity in regard to the requirement of Article 123(2) EPC.

The appellant also confirmed that no further arguments relating to Article 123(2) EPC were to be made in view of the extra features added, but relied nevertheless in its arguments on those already made, stating additionally that by adding new features the complexity of the considerations to be made in this respect were increased.

2.1.5 With the auxiliary request 1 being neither too complex nor adversely affecting procedural efficiency if admitted, the Board exercised its discretion under Article 13(1) RPBA to admit this request.

2.2 *Inventive step (Article 56 EPC 1973)*

2.2.1 The subject-matter of claim 1 involves an inventive step (Article 56 EPC 1973) over the document combinations and arguments submitted by the appellant.

Taking any one embodiment of Figure 4, 5 or 6 of D2 as a starting point, the subject-matter of claim 1 differs therefrom at least in that the fabric of the band is knitted. Based on this differentiating feature at least, the objective technical problem may be seen as how to achieve a better fit of the antiskid device of D2 on a tyre.

D4 discloses an antiskid fabric ('netzartige Rutschsicherung') in which a knitted twine or yarn (see

page 1, lines 1-2) is intermeshed (page 4, 1st and 2nd paragraph after figure description) to produce the fabric. The individual knitted twines are intermeshed ('vermaschten Einzelschnüren') in a knot-free manner (see page 4, 2nd paragraph after figure description). It thus follows that D4 discloses a fabric comprising individually knitted yarns which are then intertwined to produce a fabric. Whether this is, or is not, a knitted fabric within the meaning of claim 1 can however be left unanswered for the purposes of this decision, since, even if the fabric of D4 were seen to be knitted, this fabric has a net-like construction (see Fig. 1) which is wholly unsuited to replace the traction tape of D2. This tape is secured to the tyre with a pressure sensitive adhesive and, according to col.3, lines 40 to 51, is prone to detaching from the tyre. Indeed, even the tape proposed in D2 has to be kept reasonably thin otherwise it might 'not stick tenaciously' to the tyre. It follows that replacing the traction tape with the net-like fabric of D4 would still further aggravate the challenge of reliable attachment of the antiskid device to the tyre due to the large open spaces in the net-like fabric leaving only relatively limited areas of knitted twine for adhesion to the tyre. The skilled person would thus clearly be dissuaded from combining the fabric of D4 with the antiskid device of D2. The subject-matter of claim 1 consequently involves an inventive step when starting from any one of the Fig. 4, 5 or 6 embodiments of D2 and combining this with the teaching from D4 in order to solve the objective technical problem, since this would not be an obvious combination for the skilled person.

2.2.2 The Board can concur with the appellant's argument regarding a lack of inventive step insofar as the

various embodiments of D2 fail to disclose a knitted fabric. However, the formulated objective technical problem of providing an antiskid device with improved wear resistance is not clearly derived from the characterising features of the fabric and the fact that it is defined as being knitted, since, according to paragraph [0018] of the patent, it is the yarn materials which influence the wear resistance. The knitted nature of the fabric, according to paragraph [0043] of the patent, whilst additionally mentioning wear resistance in relationship to a natural elasticity of the knitted fabric, further suggests optimal adaptation of the device to the tyre resulting from the knitted construction. Since this device characteristic is attributable, according to the skilled person's reading of the patent, alone to the knitted nature of such a fabric, this also presents the appropriate basis for the objective technical problem as used above in point 2.2.1, namely, how to achieve a better fit of the antiskid device of D2 on a tyre.

As presented above under point 2.2.1, the combination of documents starting from D2 and combining this with the teaching from D4 in light of the problem to be solved does not however deprive the subject-matter of claim 1 of an inventive step.

2.2.3 The appellant's reference to page 83 of A8, disclosing the conformability of knitted yarns, has no effect on the above finding regarding the presence of an inventive step in the subject-matter of claim 1 in view of D2 and D4. The fact that knitted fabrics may be conformable is not as such in dispute, albeit that A8 in fact relates to composites and particularly laminate composites, something which is anyway not related to the claimed invention. Thus nothing changes the

conclusion that the knitted fabric construction in D4 comprises a net-like structure (see Fig. 1) which has limited yarn area for contact with the tyre via the pressure sensitive adhesive (which is used to secure the traction tape of D2 to the tyre). The combination of the net-like fabric of D4 with the antiskid device of D2 would thus result in an essentially unworkable antiskid device in which the fabric would be inadequately secured to the tyre. Thus, while the skilled person could make such a combination, this would clearly not be done when taking into account the operational requirements put on an antiskid device of this type.

2.2.4 The appellant's argument starting from D2 and combining with the knitted fabric known from D5 also changes nothing in the above finding. Similarly to D4, the fabric of D5 is a net-like structure with large spaces between the yarns of the fabric (see particularly Figs. 1 and 2). As a result similar difficulties would exist when trying to adhere the fabric of D5 to the tyre as found for the fabric of D4 in point 2.2.1 above.

2.2.5 Additionally, whilst certain embodiments in D2 have fibres (e.g. in the embodiments shown in Fig. 3 or Fig. 4) or ridges (e.g. Fig. 5) which would act as ribbings in the sense of claim 1 of the first auxiliary request, these ribbings in D2 are arranged at an angle of approximately 0° to the direction perpendicular to a rolling direction of the wheel. While the ribbing angle of 0° is in accordance with the ribbing angle defined in claim 1 (i.e. lower than 30° with respect to the rolling direction of the wheel), nothing in D4 or D5 indicates that the nets thereof should be placed such that the individual yarns thereof when forming ribbings would lie in the antiskid device so as to provide an

angle of lower than 30° . In fact the contrary appears to be the case when considering e.g. Figs. 1 and 2 of D5, where the angle at which the individual yarns of the net are depicted appear well above the 30° limit defined in claim 1. The same can be gleaned from Fig. 1 of D4. Thus, a combination of D4 or D5 with D2 would not result in an antiskid device fulfilling the angle requirement of claim 1 unless a still further adaptation were made, for which adaptation there is however no incentive.

2.2.6 In summary therefore, in view of the documents cited by the appellant in relation to inventive step and the arguments presented by the appellant in support of its objection, the subject-matter of claim 1 is considered to involve an inventive step (Article 56 EPC 1973).

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 with the order to maintain the European patent with the following documents:

Claims 1 to 18, of auxiliary request 1, filed 8 January 2015;

Description cols. 1 to 6 of auxiliary request 1, filed 8 January 2015;

Figs. 1 to 4, as granted.

The Registrar:

The Chairman:



C. Spira

M. Harrison

Decision electronically authenticated