Datasheet for the decision of 23 July 2007

Case Number: T 0144/06 - 3.2.07
Application Number: 96110857.8
Publication Number: 0753471
IPC: B65G 15/36
Language of the proceedings: EN

Title of invention: Steel cable conveyor belt with improved penetration and rip resistance

Patentee: THE GOODYEAR TIRE & RUBBER COMPANY

Opponent: Continental AG

Headword: -

Relevant legal provisions: EPC Art. 54, 56, 104(1), 111(1)

Keyword: "Late filed documents proving general knowledge - admitted into proceedings" "Remittal - no" "Apportionment of costs - no" "Novelty - yes" "Inventive step - no (all requests)"

Decisions cited: -

Catchword: -
Case Number: T 0144/06 - 3.2.07

DECISION
of the Technical Board of Appeal 3.2.07
of 23 July 2007

Appellant: Continental AG
(Opponent)
Vahrenwalder Straße 9
D-30165 Hannover (DE)

Representative: Lippich, Wolfgang
Samson & Partner
Widenmayerstraße 5
D-80538 München (DE)

Respondent: THE GOODYEAR TIRE & RUBBER COMPANY
(Patent Proprietor)
1144 East Market Street
Akron
Ohio 44316-0001 (US)

Representative: Kutsch, Bernd
Goodyear S.A.
Patent Department
LU-7750 Colmar-Berg (LU)

Decision under appeal: Decision of the Opposition Division of the European Patent Office posted 1 December 2005 rejecting the opposition filed against European Patent No. 0753471 pursuant to Article 102(2) EPC.

Composition of the Board:
Chairman: H.-P. Felgenhauer
Members: P. O'Reilly
I. Beckedorf
Summary of Facts and Submissions

I. Opposition was filed against European patent No. 0 753 471 as a whole based on Article 100(a) EPC (lack of novelty and lack of inventive step).

The opposition division rejected the opposition. It held that the subject-matter of claim 1 of the patent as granted was novel and involved an inventive step.

II. The appellant (opponent) filed an appeal against that decision.

III. The appellant requested that the decision under appeal be set aside and the patent be revoked.

The respondent requested that the appeal be dismissed and the patent be maintained unamended (main request). Alternatively, the respondent requested that the patent should be maintained in amended form on the basis of the set of claims according to the first auxiliary request filed with letter of 21 June 2007, or on the basis of the sets of claims according to the second to fifth or seventh auxiliary requests filed during oral proceedings before the Board on 23 July 2007. The sixth auxiliary request was withdrawn during the oral proceedings.

IV. The independent claim of the patent as granted (main request) reads as follows:

"1. A cured conveyor belt (5) with a core member having a series of rubberized parallel longitudinal metallic cables (6), covered on each side with a rubber layer (15), on its top side at least one layer (10) of a
rubberized closely spaced series of transversely positioned metallic cables (9) adhered to the core member, with a rubberized fabric layer (12) adhered below the core member, an upper cover (7) suitable for carrying a load and a pulley cover layer (14) beneath said fabric layer (12).

The independent claim of the first auxiliary request reads as follows (amendments when compared to claim 1 of the main request are depicted in bold):

"1. A cured conveyor belt (5) with a core member having a series of rubberized parallel longitudinal metallic cables (6), covered on each side with a rubber layer (15), on its top side at least one layer (10) of a rubberized closely spaced series of transversely positioned metallic cables (9) adhered to the core member, with a rubberized fabric layer (12) adhered below the core member, an upper cover (7) suitable for carrying a load and a pulley cover layer (14) beneath said fabric layer (12), wherein the belt (5) has a load cover stock (7) above and a pulley stock below the longitudinal cables (6)."

The independent claim of the second auxiliary request reads as follows (amendments when compared to claim 1 of the main request are depicted in bold):

"1. A cured conveyor belt (5) with a core member having a series of rubberized parallel longitudinal metallic cables (6), covered on each side with a rubber layer (15), on its top side at least one layer (10) of a rubberized closely spaced series of transversely positioned metallic cables (9) adhered to the core
member, with a rubberized woven fabric layer (12) adhered below the core member, an upper cover (7) suitable for carrying a load and a pulley cover layer (14) beneath said fabric layer (12)."

The independent claim of the third auxiliary request reads as follows (amendments when compared to claim 1 of the main request are depicted in bold):

"1. A cured conveyor belt (5) with a core member having a series of rubberized parallel longitudinal metallic cables (6), covered on each side with a rubber layer (15), on its top side at least one layer (10) of a rubberized closely spaced series of transversely positioned metallic cables (9) adhered to the core member, with a rubberized fabric layer (12) adhered below the core member, an upper cover (7) suitable for carrying a load and a pulley cover layer (14) beneath said fabric layer (12), and wherein the transversely positioned metallic cables (9) located above the longitudinal metallic cables (6) are separated at least by an insulating or adhesive rubber layer or coating to bind the two together."

The independent claim of the fourth auxiliary request reads as follows (amendments when compared to claim 1 of the main request are depicted in bold):

"1. A cured conveyor belt (5) with a core member having a series of rubberized parallel longitudinal metallic cables (6), covered on each side with a rubber layer (15), on its top side at least one layer (10) of a rubberized closely spaced series of transversely positioned metallic cables (9) adhered to the core member, with a rubberized fabric layer (12) adhered below the core member, an upper cover (7) suitable for carrying a load and a pulley cover layer (14) beneath said fabric layer (12), and wherein the transversely positioned metallic cables (9) located above the longitudinal metallic cables (6) are separated at least by an insulating or adhesive rubber layer or coating to bind the two together."
member, with a rubberized fabric layer (12) adhered below the core member, an upper cover (7) suitable for carrying a load and a pulley cover layer (14) beneath said fabric layer (12), and wherein a rubberized fabric stock is located between the topside of the longitudinal metallic cables (6) and the at least one layer (10) of a rubberized closely spaced series of transversely positioned metallic cables (9)."

The independent claim of the fifth auxiliary request reads as follows (amendments when compared to claim 1 of the fourth auxiliary request are depicted in bold):

"1. A cured conveyor belt (5) with a core member having a series of rubberized parallel longitudinal metallic cables (6), covered on each side with a rubber layer (15), on its top side at least one layer (10) of a rubberized closely spaced series of transversely positioned metallic cables (9) adhered to the core member, with a rubberized fabric layer (12) adhered below the core member, an upper cover (7) suitable for carrying a load and a pulley cover layer (14) beneath said fabric layer (12), and wherein a rubberized fabric stock is located between the topside of the longitudinal metallic cables (6) and the at least one layer (10) of a rubberized closely spaced series of transversely positioned metallic cables (9), the rubberized fabric stock being woven fabric, embedded in a rubber matrix, wherein the fabric is polyaramide or nylon."

The independent claim of the seventh auxiliary request reads as follows (amendments when compared to claim 1 of the main request are depicted in bold):
"1. A method of making a cured conveyor belt (5) with a core member having a series of rubberized parallel longitudinal metallic cables (6), covered on each side with a rubber layer (15), on its top side at least one layer (10) of a rubberized closely spaced series of transversely positioned metallic cables (9) adhered to the core member, with a rubberized fabric layer (12) adhered below the core member, an upper cover (7) suitable for carrying a load and a pulley cover layer (14) beneath said fabric layer (12), the method comprising plying up said different conveyor belt layers and curing them at a pressure of 1,38 MPa to 3,45 MPa (200 to 500 psi) from 30 to 90 minutes."

V. The documents cited in the present decision are the following:

D1: H. Westphal: Handbuch für Fördergurte, Leipzig, 1964,
D2: H. Flebbe: Untersuchungen von Fördergurten auf ihre dynamische Festigkeit, Braunkohle, Juni 1982, pages 186-191,
D3: DE-A-2 557 025,
D4: DD-A-265 858,
D5: G. Matthée: Lexikon der Fertigungstechnik und Arbeitsmaschinen, Stuttgart, 1967,
D6: H. Westphal: Fördergurte Herstellung und Anwendung, Leipzig, 1983,
D7: DIN Vornorm 22131, Februar 1965,
D8: Conveyor Equipment Manufacturers Association: Belt Conveyors for Bulk Materials, 3rd Edition, USA, 1988,
D9: Glückauf, 124 (1988), Nr. 6, page 319,
VI. The arguments of the appellant may be summarised as follows:

(i) The documents D5 to D8 are filed with the appeal since the appellant was surprised by the interpretation of the term "rubberized" by the opposition division during the oral proceedings. The opposition division changed its opinion from the one which it had given in its provisional opinion.

Since the documents only concern the general knowledge of the skilled person already asserted they do not change the line of argumentation of the appellant so that there is no need to remit the case on admittance of the documents.

(ii) The subject-matter of claim 1 of the patent as granted lacks novelty over sample 23a of D2. It is self-evident that the conveyor belt has a load cover and a pulley cover. There is no disclosure whatsoever of a pre-treatment of the longitudinal metallic cables in the patent so that the claim cannot be interpreted to imply this. Such a treatment would be exceptional. The skilled person would realise that the transverse cables disclosed in D2 have to be closely spaced in order to function as reinforcement so that this feature is implicitly disclosed.

(iii) The subject-matter of claim 1 of the patent as granted lacks an inventive step. If the feature that the transverse metallic cables are closely
spaced is not considered to be disclosed in D2 it is nevertheless an obvious measure. These cables act as reinforcement and can only carry out this function if they are close together though they must be spaced by a small amount to allow the rubber to pass between them to allow for the rubberizing. D2 indicates that the spacing of the cables is an important parameter, and the close spacing has not been shown to produce any surprising effects.

(iv) The subject-matter of claim 1 of the first auxiliary request does not involve an inventive step. The materials of the cover layers only have to be suitable for the purpose and the cover layers which would be used for the conveyor belt known from D2 would have been suitable for their purposes.

(v) The subject-matter of claim 1 of the second auxiliary request does not involve an inventive step. The only advantage in providing the fabric as a woven fabric is in the production process wherein it would be difficult to hold transverse metallic cables in place. However, this problem is known and the solution of using a woven structure is already known from D10. Also, D6 and D8 show that the use of woven fabrics was standard.

(vi) The subject-matter of claim 1 of the third auxiliary request does not involve an inventive step. It is normal that the differing layers making up the conveyor belt are bound together as
shown by D9. The effects alleged by the respondent have not been proven.

(vii) The subject-matter of claim 1 of each of the fourth and fifth auxiliary requests does not involve an inventive step. An extra woven layer beneath the longitudinal cables cannot have any effect on the bounce. It is moreover known from D8 that there may be several fabric layers. There is no special effect resulting from the use of polyaramide or nylon for this layer.

The amendments to claim 1 of each of the fourth and fifth auxiliary requests add subject-matter.

(viii) The subject-matter of claim 1 of the seventh auxiliary request does not involve an inventive step. Pressure and treatment time alone do not give enough information regarding the vulcanisation process. As shown by D1 the material and its thickness as well as the process temperature are other necessary parameters which have not been specified in the claim. Moreover the specified values overlap with known values as also shown by D1.

VII. The arguments of the respondent may be summarised as follows:

(i) The documents D5 to D8 are late filed and should not be admitted into the proceedings. The appellant held the documents back in the opposition proceedings when it could have filed
them. The documents disclose more than just general knowledge.

The respondent has the right to have its case heard before two instances so the case should be remitted if the documents are admitted into the proceedings. In which case there should also be an apportionment of costs.

D9 is filed in response to an auxiliary request of the respondent so there is no objection to its admittance.

(ii) The subject-matter of claim 1 of the main request is novel over D2. In particular D2 does not disclose the following features of claim 1: a) an upper cover and a lower cover; b) the longitudinal metallic cables are rubberized; and c) the transverse metallic cables are closely spaced.

The claim specifies an upper load carrying cover and a lower pulley cover which are inherently different. D2 is silent regarding the covers.

Claim 1 requires that there is a pre-treatment of the cables with rubber before they are covered with the rubber layers as was recognised by the opposition division. D2 does not mention such a pre-treatment.

There is no mention in D2 of the spacing of the transverse cables so that the feature of the close spacing of these is not disclosed therein.
(iii) The subject-matter of claim 1 of the main request involves an inventive step. The term "closely spaced" means that the spacing between the cables is no more than the diameter of the cables. D2 gives no indication of the spacing and the skilled person would not recognise that such a close spacing would have an advantageous effect of increasing damage resistance at the same time as maintaining trough-forming ability and the bounce effect. There are many parameters that the skilled person could vary and there was no indication to optimise the spacing.

(iv) The subject-matter of claim 1 of the first auxiliary request involves an inventive step. The additional features of this claim show that there are specific and differing materials for the upper and lower covers. There is no indication in D2 of providing such differing materials.

(v) The subject-matter of claim 1 of the second auxiliary request involves an inventive step. The use of a woven fabric means that the bounce effect is improved and that the production of the layer is simplified. D2 gives no hint in this direction. D10 is a rather remote document. D3 is mainly directed to transverse cords which are not woven.

(vi) The subject-matter of claim 1 of the third auxiliary request involves an inventive step. The provision of this feature improves the damage resistance properties of the belt. There is no indication in D2 to provide such an extra layer.
(vii) The subject-matter of claim 1 of each of the fourth and fifth auxiliary requests involves an inventive step. The provision of an extra layer of woven material probably improves the bounce effect. This is further increased when the material is polyaramide or nylon which are more elastic than steel.

(viii) The subject-matter of claim 1 of the seventh auxiliary request involves an inventive step. There is no disclosure in D2 of the method of making the disclosed conveyor belts. The presence of a large amount of metal due to the metallic layers means that normal process parameters would not be expected to apply. It is therefore surprising that they do actually work.

Reasons for the Decision

1. Admissibility of the late-filed documents

1.1 The documents D5 to D8 were filed with the appeal grounds. D5, D6 and D8 are extracts from handbooks. D7 is a DIN Vornorm. From their nature these documents disclose the general knowledge of the skilled person. In its provisional opinion the opposition division had expressed an opinion considered the meaning of the term "rubberized" as used in claim 1 of the patent as granted. In its decision the opposition division changed its opinion completely on this point. It is therefore reasonable that the appellant files proof of its assertion regarding the general understanding of the skilled person concerning this term. There is no change
in the factual or legal framework since the cited documents merely support the assertions which the appellant had made as opponent and had been accepted provisionally by the opposition division.

No proof was supplied by the respondent for its allegation that it was an abuse of the procedure by the appellant who had access to the documents during the opposition proceedings but held them back. The appellant in fact had no cause to look for and find evidence for its assertion of the meaning of "rubberized" since the opposition division had accepted this assertion. Moreover, the documents were filed at the start of the appeal proceedings so that the respondent had ample opportunity to respond.

The Board therefore admitted these documents into the proceedings.

1.2 D9 was filed shortly before the oral proceedings before the Board. The respondent did not object to its admittance into the proceedings since it was directed to one of the auxiliary requests filed by the respondent during the appeal proceedings. The Board accordingly admitted the document.

1.3 In the discussion of the second auxiliary request which was filed for the first time during the oral proceedings the appellant referred to D10 which had been mentioned in the grant proceedings. The respondent did not object to this reference and the Board also saw no reason to object in view of the late filing of the request.
2. **Requests for remittal and an apportionment of costs**

2.1 The respondent requested that the case be remitted if the documents D5 to D8 were admitted into the proceedings. However, as indicated above the documents do not change the factual or legal framework of the case so that a remittal pursuant to Article 111(1) EPC is not warranted.

2.2 Since the request for an apportionment of costs pursuant to Article 104(1) EPC was based on the extra costs which would occur due to a remittal there is no reason for an apportionment in the absence of such remittal. Therefore no apportionment is ordered.

**Main request**

3. **Novelty**

3.1 The only document for which lack of novelty of the subject-matter of claim 1 was alleged by the appellant is D2. In particular the appellant concentrated on a test sample identified as sample 23a in the document. The respondent identified three features of the claim which it considered were not disclosed in D2. These features are the following:

(a) there is an upper cover and a lower cover;

(b) the longitudinal metallic cables are rubberized;

(c) the transverse metallic cables are closely spaced.
3.2 According to the respondent the claim specified differing types of covers which have differing functions, i.e. to support the objects to be carried or to interact with the conveyor pulleys, whereas there is no information in D2 with regard to sample 23a so that the orientation of sample 23a is not known. The Board cannot agree with this argument. It is stated in the document that the various samples have differing transverse reinforcements. In sample 23a it is stated that there is a steel reinforcement on one side and a reinforcement of polyamide on the other side. Since one of the purposes of the disclosed conveyor is to resist damage from sharp objects it is clear that the steel reinforcement must be above the core. Also, the conveyor must form a trough which requires the more elastic reinforcement to be below the core. The skilled person would understand that this must be the arrangement of sample 23a. Also such a sample must have an upper cover and a pulley cover in order to function. The Board concludes therefore that feature a) is disclosed in D2.

3.3 The term "rubberizing" has been much discussed in the opposition proceedings. The opposition division agreed with the argument of the respondent that the claim requires that the longitudinal cables are pre-treated with a rubber coating before being laid parallel and covered with a rubber layer.

The Board cannot agree with this interpretation. First of all the claim is directed to a product whereas the concept of a pre-treatment is a method step. No evidence has been filed showing that this would lead to a discernable difference in the final product.
Furthermore, the claim is ambiguous in that it indicates that the longitudinal cables are rubberized and that they are covered on each side with a rubber layer. The description as originally filed referred on page 2, line 23 to the "rubberized longitudinal cable" without reference to a pre-treatment. On page 3, line 35 to page 4, line 2 there is reference to "a series of rubberized longitudinal parallel steel cables" without reference to a pre-treatment. On page 4, lines 30 to 33 it is stated that: "The longitudinal steel cables 6 are covered or embedded in a rubber compound 15". None of these references in the description as originally filed give any hint to a pre-treatment. The skilled reader would thus understand the wording of the claim to mean that there is a single rubberizing step due to the covering by the rubber layers.

Since D2 refers to rubberizing the core steel cables (see sentence bridging pages 188 and 189) feature b) is also disclosed in D2.

3.4 With respect to feature c) the expression "closely spaced" might be considered to be unclear. However, even if the limit as to what is closely spaced, i.e. the maximum distance apart of the transverse cables whilst remaining "closely spaced", is disputable it is clear that certain separations would be so great that they could never be considered to be "closely spaced". The expression must therefore be considered to have some meaning in that some situations are definitely excluded. D2 refers to the spacing as being an important parameter (page 90, second paragraph from the bottom which
mentions the "Teilung"), but it is silent concerning the extent of the spacing of the transverse cables.

In the absence of any information regarding the spacing of the cables this feature cannot be considered to be disclosed in D2.

3.5 Therefore, the subject-matter of claim 1 is novel in the sense of Article 54 EPC.

4. Inventive step

4.1 The closest prior art is sample 23a of D2 which discloses all the features of claim 1 except for the feature c) as explained above with respect to novelty.

According to D2 the use of steel cables is not alone a guarantee that the reinforcement functions. The diameter and the spacing of the transverse cables are stated to be important. Since D2 does not give any explicit information regarding the spacing the skilled person has to decide upon the spacing when implementing its teaching. Since one of the purposes of the cables is to prevent sharp objects from cutting into the conveyor belt it is clear that the skilled person will avoid a wide spacing and be inclined towards a closer spacing. Dependent upon the purpose of the conveyor, i.e. the size and weight of the objects to be conveyed, the skilled person will choose a close spacing when appropriate.

4.2 The respondent argued that there are many parameters that can be varied and the skilled person would not know which one to vary. However, the respondent overlooks the
fact that it is not a question of changing the spacing, but of the necessary step of setting the spacing which is already referred to as an important parameter (see page 190, second paragraph from the bottom). The respondent argued that feature c) solved the problem of increasing the resistance to damage whilst maintaining good trough-forming and bounce properties. The respondent supplied no proof that feature c) actually solved this problem so that this argument can be discounted.

4.3 The Board concludes that the provision of feature c) in the conveyor belt according to sample 23a of D2 would have been an obvious measure for the skilled person.

4.4 Therefore, the subject-matter of claim 1 of the main request does not an inventive step in the sense of Article 56 EPC.

First auxiliary request

5. Inventive step

5.1 Although the wording of claim 1 of this request is not as clear as would be preferred there is still no difficulty for the skilled person to understand that it specifies that the upper layer is made from load cover stock and the pulley cover layer is made from pulley stock.

The respondent argued that these are two differing materials and that there was no indication in D2 to provide differing materials for the two sides of the conveyor belt.
5.2 Putting aside the question of whether the wording the claim really does imply two differing materials, the Board considers that the skilled person has to choose a material for each side of the belt, i.e. for the load side and for the pulley side. It is clearly obvious that the skilled person would choose a load cover stock and a pulley stock, i.e. the material designated for these purposes, for the respective load and pulley sides.

5.3 The Board concludes that the provision of the extra features of claim 1 of the first auxiliary request is an obvious measure for the skilled person.

5.4 Therefore, the subject-matter of claim 1 of the first auxiliary request does not an inventive step in the sense of Article 56 EPC.

Second auxiliary request

6. Inventive step

6.1 Claim 1 of the second auxiliary request includes the extra feature that the fabric of the fabric layer is a woven fabric.

According to the respondent this feature improved the bounce effect and helped in the production process.

6.2 The appellant disagreed regarding the bounce effect but agreed that it would help in production since it would make it easier to keep the transverse cables of D2 in place during production. In this respect the appellant
referred to D3, D8 and D10 arguing that woven fabric was known for the lower reinforcing layer.

6.3 The Board agrees with the appellant that there is no reason to conclude that the problem of improving bounce had been solved by the extra feature of the claim. There is no indication of such an effect in the description of the patent. Compared to the disclosure of D2 the effect of a woven material as opposed to the transverse cables disclosed in D2 is that there are extra longitudinal members. However, these are situated beneath the main longitudinal steel cables so that they cannot have any direct effect upon the bounce.

In D3 it is explained that transverse elastic cables can be replaced by woven fabric whilst obtaining the same effect (see page 6, lines 1 to 14). It is therefore clear that the provision of a woven fabric is a standard measure. This view is reinforced by D10 which explains that longitudinal threads are woven around transverse threads to aid in the positioning of the transverse threads during production (see column 2, lines 36 to 48).

6.4 The Board concludes that the provision of the extra feature of claim 1 of the second auxiliary request is an obvious measure for the skilled person, i.e. to facilitate the manufacturing of the conveyor belt.

6.5 Therefore, the subject-matter of claim 1 of the second auxiliary request does not involve an inventive step in the sense of Article 56 EPC.
Third auxiliary request

7. Inventive step

7.1 According to claim 1 of this request there is an extra layer between the transverse layer of metallic cables and the longitudinal layer of metallic cables which serves to bind these two together. The appellant argued that this extra layer improved the resistance to damage of the conveyor belt.

The effect of the extra feature is to bind the longitudinal and transverse cable layers together. In D9, which is an advertisement, it is indicated that good binding between the transverse layers is a desirable property. It is also clear that where layers are intended to function together as a single entity then this can only occur if they are held together. The claim specifies that the extra layer may be insulating, adhesive rubber or coating. Nothing in these options gives rise to any special effects.

7.2 The Board concludes that the provision of the extra feature of claim 1 of the third auxiliary request is an obvious measure for the skilled person.

7.3 Therefore, the subject-matter of claim 1 of the third auxiliary request does not involve an inventive step in the sense of Article 56 EPC.
Fourth and fifth auxiliary requests

8. **Inventive step**

8.1 According to these requests there is an extra layer of rubberized fabric stock between the longitudinal metallic cables and the transverse metallic cables (fourth auxiliary request) and this fabric stock is woven and made of polyaramide or nylon (fifth auxiliary request).

8.2 The respondent considered that these features probably improved the bounce effect though it could offer no proof for this assertion. Since the layer is above the layer of longitudinal metallic cables it is, however, unlikely that such an effect could occur.

8.3 According to D8 it is normal to have one or more fabric plies above or below the core layer. No special effect has been shown for the features that the fabric is woven and is made from polyaramide or nylon (which is a polyamide). Indeed, according to D3 polyaramide is relatively inextensible whereas polyamide is highly elastic. It is improbable that two materials which have opposite elastic effects could each improve the bounce which is an elastic effect. The features are standard options available to the skilled person and produce no proven advantage.

8.4 The Board concludes that the provision of the extra features of claim 1 of each of the fourth and fifth auxiliary requests is an obvious measure for the skilled person.
8.5 Therefore, the subject-matter of claim 1 of each of the fourth and fifth auxiliary requests does not involve an inventive step in the sense of Article 56 EPC.

**Seventh auxiliary effect**

9. **Inventive step**

9.1 The single claim of the seventh auxiliary request is a method claim based on claim 8 as granted. In addition to the product features of claim 1 the method specifies the ranges of pressure and time for process for curing the conveyor belt.

9.2 As pointed out by the appellant the time for curing will depend upon the nature of the material and the thickness as shown by Table 42 on page 311 of D1. The temperature also clearly will play a role as indicated by the fact that vulcanisation presses are heated (see page 284 of D1) and by the general knowledge that all physical-chemical processes depend upon the temperature. In the absence of information about the materials and the vulcanisation temperatures there is not enough information to be able to derive any special effects from the pressure and time ranges specified in the claim. These ranges must be considered therefore as normal in the art in the absence of proof to the contrary. Indeed the respondent accepted that they were normal in the art but argued that the skilled person would not expect the normal ranges to work. The respondent offered no evidence for this view which can therefore be discounted.
9.3 The Board concludes that the provision of the extra features of claim 1 of the seventh auxiliary request is an obvious measure for the skilled person.

9.4 Therefore, the subject-matter of claim 1 of the seventh auxiliary request does not an inventive step in the sense of Article 56 EPC.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The patent is revoked.

The Registrar: 

G. Nachtigall

The Chairman:

H-P. Felgenhauer