Europäisches Patentamt
European Patent Office
Office européen des brevets

Technology and Policy Information available in the Patent System

W. Pilch PD 4.5

Date (14. March 2007)

The Patent System

- a **transparent** system with regards to

- technical information
- policy information

Patent theory

- A patent is a “contract” between the inventor and the public.
- The inventor agrees to disclose fully the invention to the public
- In exchange, the government grants for a “limited time” a “limited monopoly” on the invention to the inventor if certain “patentability tests” are met.

Patentability tests

- Novelty
- Inventive step
- made or used in any kind of industry (industrial application)

The Patent System

- **technical information**

classification
titles
abstracts
complete description

- **policy information**

based on bibliographic data and technical data

Patent documents

(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) EP 1 714 800 A1

(12) EUROPEAN PATENT APPLICATION

(43) Date of publication:
25.10.2006 Bulletin 2006/43

(51) Int Cl.:
B60C 9/26 *(2006.01)* *B60C 19/00* *(2006.01)*

(21) Application number: 06252119.0

(22) Date of filing: 19.04.2006

(84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR
Designated Extension States:
AL BA HR MK YU

(30) Priority: 21.04.2005 JP 2005123839
28.03.2006 JP 2006088357

(71) Applicant: Bridgestone Corporation
Tokyo 104-8340 (JP)

(72) Inventor: Takanami, Takeshi c/o Bridgestone Corporation
Chuo-ku, Tokyo 104-8340 (JP)

(74) Representative: Whalley, Kevin
Marks & Clerk
90 Long Acre
London WC2E 9RA (GB)

(54) **Radial tire for an airplane and method of manufacturing radial tire for an airplane**

Patent Information

- Classification

Language independent

B60C 9/26

PERFORMING OPERATIONS; TRANSPORTING	**B**
VEHICLES IN GENERAL	**B60**
VEHICLE TYRES (manufacture B29); TYRE INFLATION; TYRE CHANGING OR REPAIRING; REPAIRING, OR CONNECTING VALVES TO, INFLATABLE ELASTIC BODIES IN GENERAL; DEVICES OR ARRANGEMENTS RELATED TO TYRES (testing of tyres G01M17/02) [C9409]	**B60C**
Reinforcements or ply arrangement of pneumatic tyres (inserts having reinforcing means B60C5/08; bead structure, e.g. turnup or overlap construction, B60C15/00; combining rubber with other materials B29H9/00; tyre cords per se D02G3/48; fabrics per se D03D, D04H; metal ropes or cables per se D07B1/06 [N: B]	**B60C9**
	B60C9/00

Patent Information

- Classification

B60C 9/26

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VEHICLES IN GENERAL	B60
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Structure or arrangement of belts or breakers, crown-reinforcing or cushioning layers	B60C9/18
[N: comprising at least one rubberised layer of discrete fibres or filaments]	B60C9/18D
built-up from rubberised plies each having all cords arranged substantially parallel	B60C9/20
[N: consisting of metal cords only]	B60C9/20B
[N: comprising mixed cords or plies of different materials]	B60C9/20D
the plies being arranged with all cords disposed along the circumference of the tyre	B60C9/22
[N: obtained by circumferentially narrow strip winding]	B60C9/22B
built-up of arcuate parts	B60C9/24
Folded plies	B60C9/26
[N: further characterised by an endless zigzag configuration in at least one belt ply, e.g. no cut edge being present] [N9711]	B60C9/26B

Patent Information

- Classification

B60C 9/26

Language independent

B60C 9/00	**Силові елементи або шари пневматичних шин** (внутрішні підсилювальні вставки B60C 5/00; конструкція бортів шин, наприклад конструкція з заворотом або перекриттям, B60C 15/00; шинний корд як такий D02G 3/48; волокна як такі D03D, D04H; металеві канати або кабелі, як такі D07B 1/00) **[4]**
	Примітки При класифікуванні в цій групі стосовно шаруватих виробів B32B класифікування також здійснюється в підкласі . **[4]**
B60C 9/02	· каркаси
B60C 9/04	· · підсилювальні нитки корду в кожному шарі каркасу розташовані в основному паралельно одна одній
B60C 9/18	· структура або розташування брекерних поясів або брекерів, підсилювальних шарів корони шини або амортизаційних шарів
B60C 9/20	· · сформовані з прогумованих шарів, в яких нитки корду розташовані в основному паралельно одна одній
B60C 9/22	· · · шари, в яких усі нитки корду орієнтовані по колу шини
B60C 9/24	· · сформовані з дугоподібних елементів
B60C 9/26	· · складані шари **[4]**
B60C 9/28	· · що характеризуються розмірами брекерного поясу або брекеру, або їх вигином відносно каркаса (B60C 9/30 має перевагу) **[4]**
B60C 9/30	· · асиметричне розташування відносно середнього кругового перерізу шини **[4]**

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(54) **Radial tire for an airplane and method of manufacturing radial tire for an airplane**

Patent Information

- Article 12 of the Paris Convention

Article 12
Special National Industrial Property Services

- (1) Each country of the Union undertakes to establish a special industrial property service and a central office for the communication to the public of patents, utility models, industrial designs, and trademarks.
- (2) This service shall publish an official periodical journal. It shall publish regularly:
- (a) the names of the proprietors of patents granted, **with a brief designation of the inventions patented;**

Patent Information

- *Article 83 54*

  Disclosure of the invention

  •The European patent application must disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.

Patent Information

The published technical information allows to

- find free technology
  - elapsed patents
  - patent not applied for and not granted in a certain country
  - patent never granted

Patent Information

The published technical information is of

- Benefit for
  - the public as a whole
  - companies trying to expand their production
  - developing countries

Important improvements

deferred examination
publication of applications (not only grants)
family systems
optical media collections

Patent Information

The published technical information allows to

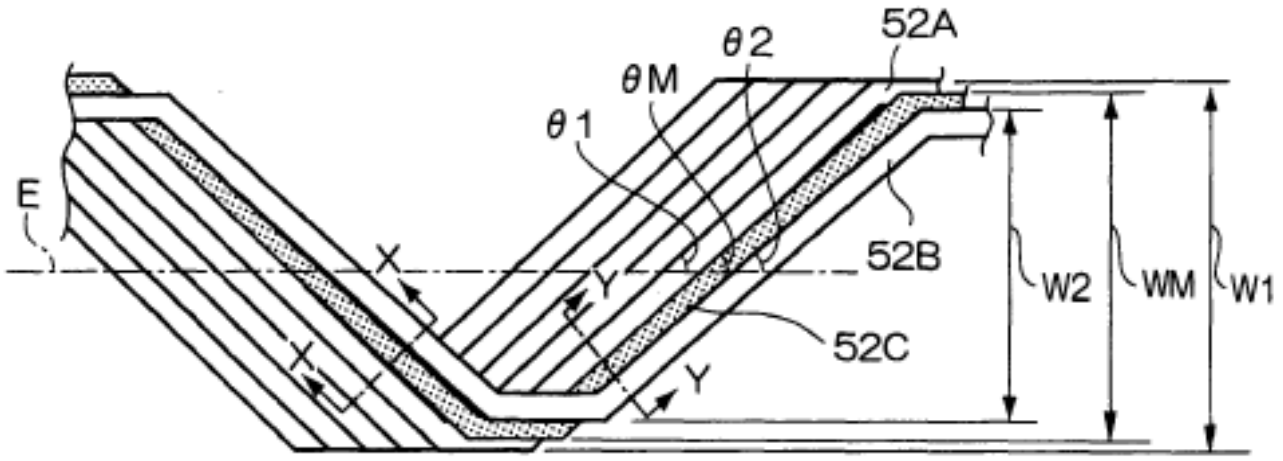
- avoid infringements

Abstract

(54) **Radial tire for an airplane and method of manufacturing radial tire for an airplane**

(57) In a belt layer structured by a plurality of zigzag endless belts which are layered in a tire radial direction and are folded-over at both ends in a tire widthwise direction and are disposed uniformly over an entire region, an angle θ1 of an inner side cord portion and a tire equatorial plane, an angle θ2 of an outer side cord portion and the tire equatorial plane, and an angle θM of an intermediate cord portion and the tire equatorial plane, are θ1 > θM > θ2.

FIG. 6A



Description

Description

BACKGROUND OF THE INVENTION

Field of the Invention

[0001] The present invention relates to a radial tire for an airplane which is used in airplanes such as passenger jet planes or the like, and to a method of manufacturing the radial tire for an airplane.

Description of the Related Art

[0002] Conventionally, structures such as disclosed in WO 2003/061991 have been known as a radial tire for an airplane. As shown in Fig. 7, the radial tire for an airplane disclosed in WO 2003/061991 has an endless zigzag belt ply in which cords, which extend in the circumferential direction while zigzagging by being folded over at both ends of the ply, are embedded substantially uniformly at the entire region

Anyhow a volume problem exists

- WIPO reported for 2004

- 584,955 granted patents
- an average of 30 pages per patent = 17,548,650 pages
- 500 pages of A4 paper = 5.6 cm

- the granted patents create a tower of paper approximately 1.97 km. high

  - in a single year
  - in multiple languages
  - not forgetting the unexamined cases!

- All this information has to be processed into databases for alerting and searching

Technical information is available

- How can it be searched
  - Conventional libraries
  - Collections of documents on optical carriers
    - Digital libraries
  - Data bases
    - Free data bases
    - Value added databases

Policy Information

Compare strategies of companies in different countries
Compare strategies of companies in one country

Patent Information

- Policy Information

- Available information to analyse clusters
  - » Technical area
  - » Patent families
  - » Applicant (company) names
  - » Inventor names

Family list 18 family members for: CN1183512C Derived from 14 applications

Patent families

18 family members for: CN1183512C

Derived from 14 applications

[19] 中华人民共和国国家知识产权局

[12] 发 明 专 利 说 明 书

[21] ZL 专利号 99813620.4

[45] 授权公告日 2005 年 1 月 5 日

[11] 授权公告

[51] Int. Cl[7]
G10L 19/00

(21) Appl. No.: **09/391,768**

(22) Filed: **Sep. 8, 1999**

Related U.S. Application Data

(60) Provisional application No. 60/109,555, filed on Nov. 23, 1998.

PCT WORLD INTELLECTUAL PROPERTY ORGANIZATION International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 7 : G10L	A2	**(11) International Publication Number:** WO 00/31719 **(43) International Publication Date:** 2 June 2000 (02.06.00)

(21) International Application Number: PCT/SE99/02023

(22) International Filing Date: 8 November 1999 (08.11.99)

(30) Priority Data:
60/109,555 23 November 1998 (23.11.98) US
09/391,768 8 September 1999 (08.09.99) US

(71) Applicant: TELEFONAKTIEBOLAGET LM ERICSSON (publ) [SE/SE]; S-126 25 Stockholm (SE).

(72) Inventors: EKUDDEN, Erik; Fjärilsvägen 23, S-184 38 Åkersberga (SE). HAGEN, Roar; c/o Bryland, Hägervägen 62, S-122 39 Enskede (SE). JOHANSSON, Ingemar; Regnvägen 89, S-976 32 Luleå (SE).

(74) Agent: ERICSSON RADIO SYSTEMS AB; Patent Support/Ericsson Research, S-164 80 Stockholm (SE).

(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published
Without international search report and to be republished upon receipt of that report.

Structure

Application US 391 768 Filed 8 September 1999

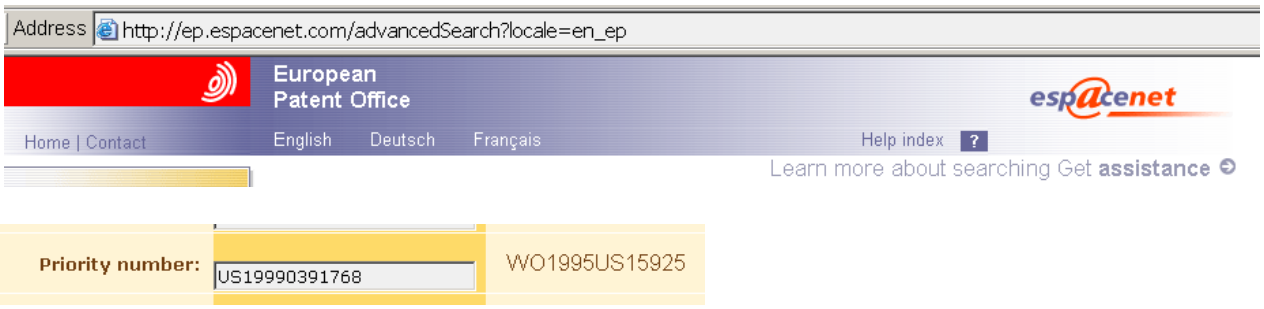
•	CA	2349944	A1	2000-06-02
•	WO	00/31719	A2	2000-06-02
•	AU	1591100	A	2000-06-13
•	BR	9915577	A	2001-11-13
•	EP	1145222	A2	2001-10-17
•	TW	469423	N	2001-12-21
•	CN	1354872	A	2002-06-19
•	WO	00/31719	A2	2003-03-20
•	AR	28.468	A1	2003-05-14
•	EP	1145222	A3	2003-05-14
•	AU	760447	B2	2003-05-15
•	JP	2003529950	T	2003-10-07
•	EP	1145222	B1	2004-05-26
•	DE	69917677	D1	2004-07-01
•	RU	2237296	C2	2004-09-27
•	CN	1183512	C	2005-01-05
•	DE	9917677	T2	2005-06-02
•	US	7124079	B1	2006-10-17

Patent Information

- Policy Information

- Available information for deep analysis
  - » IPC landscapes
  - » Time series
  - » Intangible asset evaluation

esp@cenet



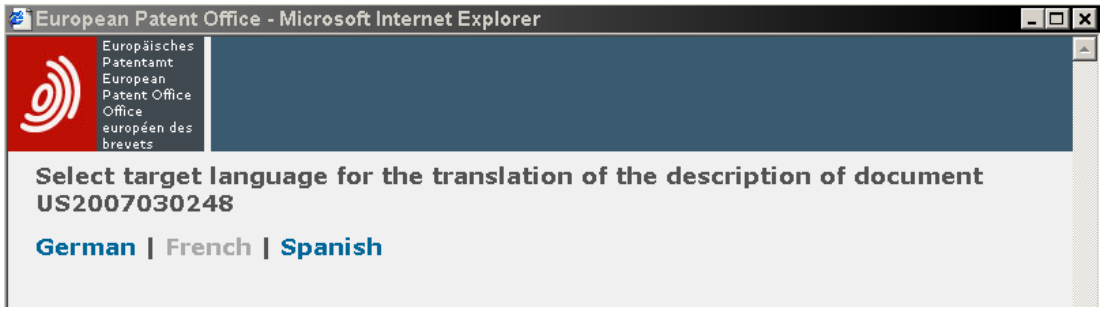
SPEECH CODING WITH COMFORT NOISE VARIABILITY FEATURE FOR INCREASED FIDELITY

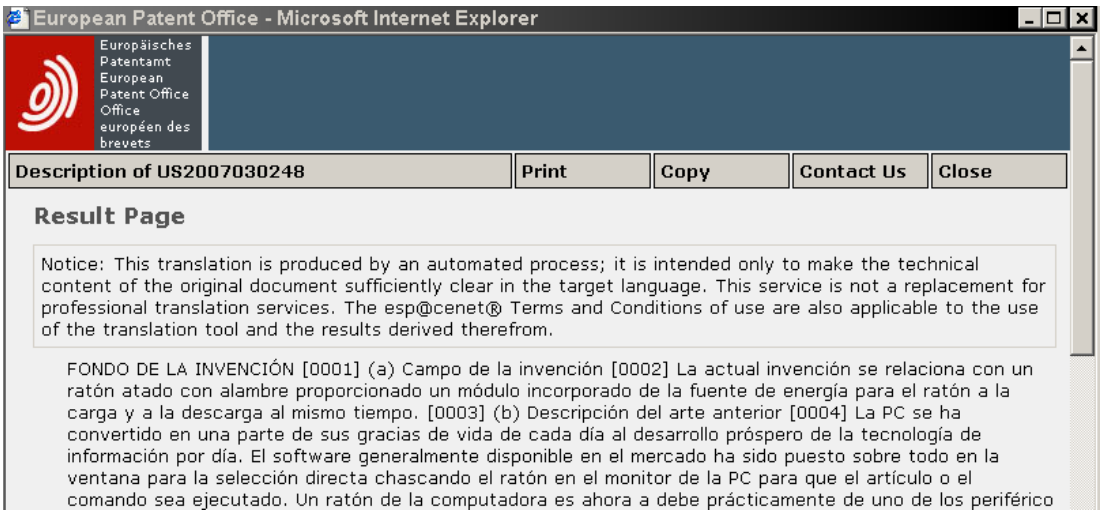
Bibliographic data | Description | Claims | Mosaics | Original document | INPADOC legal status

Publication number: AR028468
Publication date: 2003-05-14
Inventor:
Applicant: ERICSSON TELEFON AB L M (SE)
Classification:
- international: ***G10L19/00; H04B14/04; H04M1/00; H04M1/725;*** **G10L19/00; H04B14/04; H04M1/00; H04M1/72;** (IPC1-7): G10L19/00
- European: G10L19/00N
Application number: AR1999P105964 19991123
Priority number(s): US19980109555P 19981123; US19990391768 19990908

Also published as:
WO0031719 (A3)
WO0031719 (A2)
EP1145222 (A3)
EP1145222 (A2)
US7124079 (B1)
more >>

Automatic translation





Patent Information

- Available Tools
- Basic services like patent family search
- Advantage of IPC search
- Complete document sets (CD ROM collections)
- Free Internet services

- Value added services for specialists

Patent Information

- Policy aspects
- Patents are rights to exclude, not active rights (Biotech, etc.)
- Patent information makes the system transparent on a global scale

Thank you for your attention

European Patent Office
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1031 Vienna AUSTRIA

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http://www.epo.org