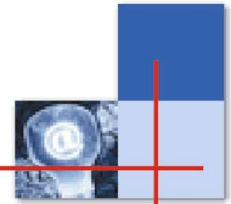


IPI-ConfEx March 2005
Benalmádena, Spain



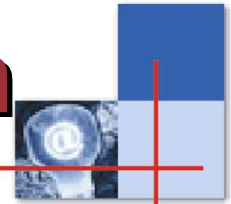
A New Look at Patent Families: FamPat

Questel•Orbit

David T Dickens

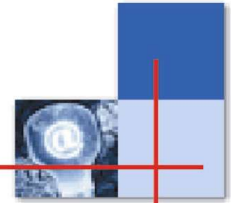
Director Patent Business

FamPat: An Introduction



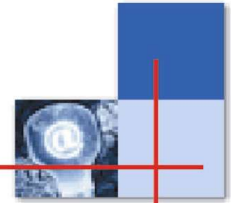
- Questel•Orbit's new international patent family file
- Based on PlusPat
- Organized by families
- Benefits:
 - Enhanced Searching
 - Enhanced Displays
- Interfaces: Qweb, QPAT, Imagination
- PatentExaminer

FamPat Coverage



- **75 Countries**
- **Back to 1920's for some major countries**
- **Updated weekly**
- **English language abstracts**
 - **Some FR abstracts (FR records & EP with FR priority)**
- **Classification**
 - **IPC**
 - **ECLA, USPCL, ICO**
 - Updated and revised
- **Images**
 - **US, EP, PCT, JP, FR, and others**
- **Cited References**
 - **US, EP, PCT, FR, GB**
 - **DE coming soon**

FamPat Benefits



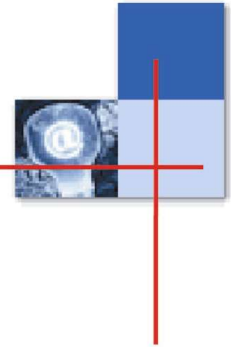
Increased precision and retrieval

- Search all data across all family members

Display Flexibility

- Family display
 - FamPat family and/or Extended family
- Stage Descriptions / Application / Filing Details
- “Drill down” capability
 - Details of individual family members

FamPat Benefits



Powerful System Features

- Statistical analysis
- Crossfile searching
- Value Added Features

Efficiency and Economy

- Fewer search steps
- Fewer records to review

Sample FamPat Record (using ALLL format)



Select All | Unselect All

Fonctionnalités disponibles
©QUESTEL-ORBIT

<input type="checkbox"/> 1 / 1 FAMPAT - img	
FAN	20042790143729
PN	EP0863017 A2 19980909 [EP-863017]
	STG : Pub. Of applic. Without search report
	AP : 1998EP-0301554 19980303
	JP10244684 A 19980914 [JP10244684]
	STG : Doc. Laid open to publ. Inspec.
	AP : 1998JP-0049541 19980302
	EP0863017 A3 19981202 [EP-863017]
	STG : Publi. Of search report
	CN1215662 A 19990505 [CN1215662]
	STG : Unexamined application
	AP : 1998CN-0107145 19980303
	US6239822 B1 20010529 [US6239822]
	STG : U.S. Patent (no pre-grant pub.) after Jan. 2, 2001
	AP : 2000US-0539559 20000331
	FD : Cont. of US805859 19970303 [1997US-0805859]
	FD : Continuation of: US6076920
	EP0863017 B1 20010718 [EP-863017]
	STG : Patent
	DE69801126 D1 20010823 [DE69801126]
	STG : Granted EP number in bulletin
	AP : 1998DE-6001126 19980303

Accession Number - New

PN by ascending date

- Stage description
- Application
- Filing Details

DE69801126 DT 20010823 [DE69801126]
STG : Granted EP number in bulletin
AP : 1998DE-6001126 19980303
 ES2159169 T3 20010916 [ES2159169]
STG : Transl. Compl. Txt. Of grted Eur. Pat.
AP : 1998ES-0301554 19980303
 DE69801126 T2 20011031 [DE69801126]
STG : Trans. Of EP patent
 CN1121322 C 20030917 [CN1121322C]
STG : Granted patent

Assignees and Inventors

TI Ink supply module
PA HEWLETT PACKARD CO
PAO Hewlett-Packard Company, Palo Alto CA [US]
IN CALATAYUD ROSA; GILES ROBERT; RUIZ FELIX; ZAPATA ELIZABETH; GUNTHER MAX S; COINER ERICH; YOUNG MARK E; STEPHENS RONALD D JR
PR 1997US-0805859 19970303
 2000US-0539559 20000331

IPC, ECLA, PCL, ICO

IC B41J-002/175
EC B41J-002/175C
ICO L41J-002/175C1A
PCL ORIGINAL (O) : 347085000
DS (EP-863017)
 DE ES GB
CT (EP-863017)
 Cited in the search report
 US5280300(A)(Cat. X);US4959667(A)(Cat. A);US4437104(A)(Cat. A);US4967207(A)(Cat. A);US5369429(A)
 Cited by applicant
 US8454975(A);US8805859(A)
CT (US6239822)
 US4558326; US5745137; US5751319; US5874976; US6076920; DE9300133
AB (EP-863017)

Cited References

- CITF, CITB available
- Relevancy indicators

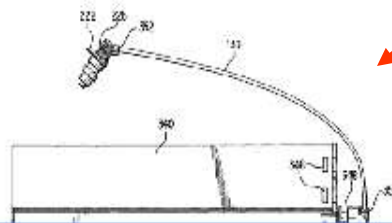


- CT (US6239822)
US4558326; US5745137; US5751319; US5874976; US6076920; DE9300133
- AB (EP-863017)
A replaceable ink supply module which provides replenishment of an inkjet printhead includes a collapsible bag (356), an enclosure box (340), a connective tube (130), and an on/off valve. These four components are incorporated into a composite sealed system which remains intact during shipment, storage, installation and operation. The collapsible bag (356) is placed inside of the protective enclosure box and has an end-connect outlet permanently attached to one end of the connective tube (130). The other end of the connective tube (130) carries a permanently attached on/off valve designed for periodic engagement with an inlet valve of an inkjet printhead.
<IMAGE>
- AB (US6239822)
A replaceable ink supply module which provides replenishment of an inkjet printhead includes a collapsible bag (356), an enclosure box (340), a connective tube (130), and an on/off valve. These four components are incorporated into a composite sealed system which remains intact during shipment, storage, installation and operation. The collapsible bag is placed inside of the protective enclosure box and has an end-connect outlet permanently attached to one end of the connective tube. The other end of the connective tube carries a permanently attached on/off valve designed for periodic engagement with an inlet valve of an inkjet printhead.
- AB (JP10244684)
PROBLEM TO BE SOLVED: To provide a displaceable ink supplying module capable of refilling ink in a moment to a cartridge having an ink jet print head.
SOLUTION: An ink supplying module comprises a foldable bag, a housing box 340, a connection pipe 130 and a needle valve structure which is an on/off valve. The above four components are built in a completely sealed compound system which is in a stable condition during conveying, storing, setting and operating. The foldable bag is placed in the protection housing box 340 and is equipped with an adapter 348 having a terminal connection outlet which is fixedly attached to one end of the connection pipe 130. The other end of the connection pipe supports the needle valve structure which is fixedly attached thereto and is designed so as to be periodically engaged with an inlet valve of a cartridge of an ink jet head.
COPYRIGHT: (C)1998,JPO
- UP 2001-34

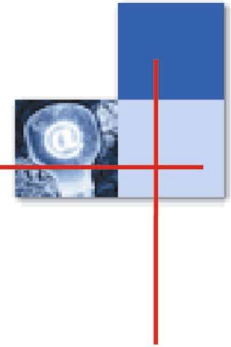
Abstracts

- One or all equivalents can be displayed

Front-page image



Search Benefits



Search same as PlusPat

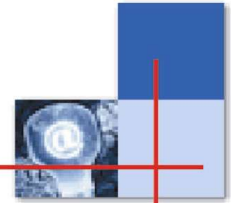
However...

Since combined into families, all family member publication information is searchable across family equivalents

- **Titles and Abstracts**
- **Assignees and Inventors**
- **Classification: IPC, ECLA, USPCL, ICO**
- **Cited References**

Result: Greater precision and retrieval for prior-art

Search Benefits: Better Recall



PlusPat

- Chinese Patents with abstracts = 175,890

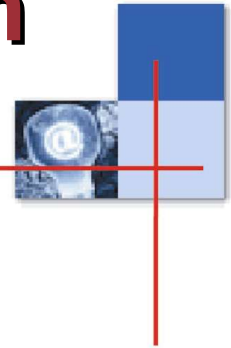
FamPat

- Chinese Patents with abstracts = 406,982

Why is there an increase in abstracts?

All FamPat equivalent abstracts are available

Search Benefits: All Search Functions



Subject Search

(+DIRECTION+ 5D OPTICAL) AND WAVELENGTH? AND (DWDM OR WDM)


Classification

H04J-014 /EC OR 385024000 /PCL



3 / 53 FAMPAT - img

FAN 20042802845612

PN  EP1435702 A2 20040707 [EP1435702]

STG : Pub. Of applic. Without search report

AP : 2003EP-0027872 20031204

 US2004131354 A1 20040708 [US20040131354]

STG : Utility Patent Application published on or after January 2, 2001

AP : 2003US-0446523 20030528

 JP2004215272 A 20040729 [JP2004215272]

STG : Doc. Laid open to publ. Inspec.

AP : 2004JP-0000385 20040105

TI Bidirectional WDM self-healing ring network

PA SAMSUNG ELECTRONICS CO LTD

PAO Samsung Electronics Co., Ltd.; 416 Maetan-dong, Yeongtong-gu; Suwon-city, Kyungki-do (KR)

IN DOH SANG-HYUN; KIM JONG-KWON; OH YUN-JE; LEE HAK-PHIL; LEE JUNG-HUN; LEE KI-CHEOL; PARK SE-KANG

PR 2003KR-0000357 20030103

IC G02F-001/00 G02F-002/00

EC H04J-014/02M

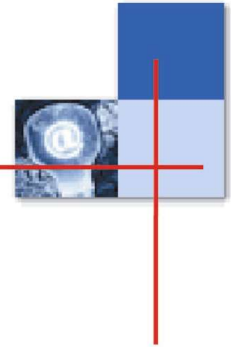
PCL ORIGINAL (O) : 398003000; CROSS-REFERENCE (X) : 398004000

AB (US20040131354)

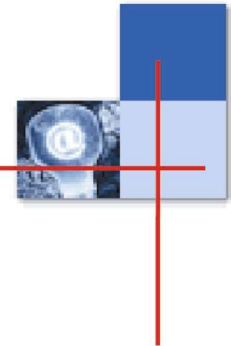
A bidirectional WDM self-healing ring network is provided and includes an outer ring network and an inner network for processing N units of optical signals and for performing a protection switching by using the outer ring network when the inner ring network suffers a link failure. Each node of the ring network includes optical add/drop multiplexers positioned in the inner ring network and the outer ring network; a demultiplexer and a multiplexer having a capacity of 1XN, respectively; a pair of switching devices extending through the outer ring network and the inner ring network and is positioned between the optical add/drop devices and an optical fiber link connected to other node; and, a plurality of WDM filters positioned at both ends of the optical add/drop multiplexers, such that when a link failure occurs in the optical fiber link, the WDM filters transfer optical signals processed in the ring network including the WDM filters to one end of the optical add/drop multiplexer connected to the WDM filters, and transfer optical signals processed in the other ring network

 ECLA Code

Display Benefits

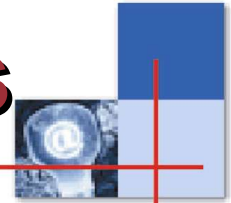


- **Records displayed by FamPat family**
- **Related stage information can be included**
 - **Stage Description**
 - **Application**
 - **Filing Details**
- **Assignees deduplicated**
- **Family members listed by ascending publication date**
- **DETAIL option to see details of individual family members**



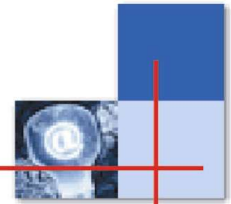
Invention-Driven Family Design

Customer Requirements



- Family search and display
- Keep extended family search and display
- No duplicate patent numbers
- PN display
 - Straight listing
 - PN display with Stage Description, Application, Filing Details
- Value-added features must be available
 - LEGAL, MEMS / GET, etc.
- “I want complete flexibility”

FamPat Family Design



Precision AND Retrieval required for Prior-art searching

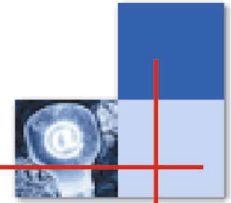
Two Family Models Evaluated

- EPO Strict Family
- INPADOC Extended Family

Guidelines / Issues

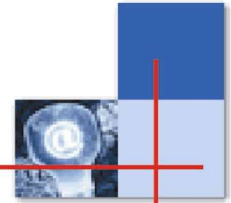
- Different office definitions of “invention”
- Links between EP and PCT applications
- US Provisionals / PGPs / Continuations / CIPs
- Families are in constant flux
- 100% Automated

EPO Strict Family



- “for two documents to be described as equivalents, all their priorities must be the same.”
- Very precise
- Highly accurate for invention-based prior-art searching
- Perhaps too narrow...

Example



PN - JP2001000583 A 20010109 [JP2001000583]
TI - SOLID GOLF BALL
PA - BRIDGESTONE SPORTS CO LTD
AP - JP17363599 19990621 [1999JP-0173635]
PR - **JP17363599 19990621 [1999JP-0173635]**

PN - JP2001000584 A 20010109 [JP2001000584]
TI - SOLID GOLF BALL
PA - BRIDGESTONE SPORTS CO LTD
AP - JP17363699 19990621 [1999JP-0173636]
PR - **JP17363699 19990621 [1999JP-0173636]**

PN - JP2001000587 A 20010109 [JP2001000587]
TI - SOLID GOLF BALL
PA - BRIDGESTONE SPORTS CO LTD
AP - JP17363799 19990621 [1999JP-0173637]
PR - **JP17363799 19990621 [1999JP-0173637]**

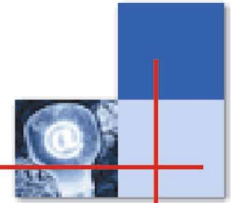
PN - US6361453 B1 20020326 [US6361453]
TI - Solid golf ball
PA - BRIDGESTONE SPORTS CO LTD (JP)
AP - US49764100 20000203 [2000US-0497641]
PR - **JP17363599 19990621 [1999JP-0173635]**
- **JP17363699 19990621 [1999JP-0173636]**
- **JP17363799 19990621 [1999JP-0173637]**

•Four records /
Four Strict
Families

•However...
US claims all JP
applications as
priority documents

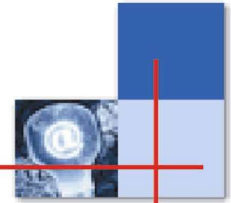
•FamPat lists all as
one family

INPADOC Family



- **Linked by priorities**
 - Directly or Indirectly linked
- **Excellent for finding all family members that are even remotely related**
- **Much too broad and can make it difficult to find the exact relationship of one patent to the other**
- **Prior-art Search**
 - Imprecise, False drops
- **Better for Display (Extended Family)**

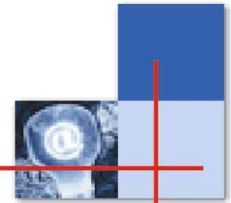
INPADOC Family



PN - EP0519664 A2 19921223 [EP-519664]
- EP0519664 A3 19930224 [EP-519664]
- EP0519664 B1 19960327 [EP-519664]
- CA2093971 A1 19940213 [CA2093971]
- CA2093981 A1 19940213 [CA2093981]
- CA2093981 C 20010320 [CA2093981]
- CN1215662 A 19990505 [CN1215662]
- CN1121322 B 20030917 [CN1121322B]
- DE19540472 A1 19960502 [DE19540472]
- DE19710677 A1 19971030 [DE19710677]
- DE19710678 A1 19971030 [DE19710678]
...
- EP0561051 A3 19940112 [EP-561051]
- EP0561051 B1 19960424 [EP-561051]
- EP0583153 A2 19940216 [EP-583153]
- EP0583153 A3 19940420 [EP-583153]
- EP0583153 B1 19970702 [EP-583153]
...
- HK92497 A 19970801 [HK9700924]
- JP10128995 A 19980519 [JP10128995]
- JP10244684 A 19980914 [JP10244684]
- JP10244685 A 19980914 [JP10244685]
- JP10244686 A 19980914 [JP10244686]
...
- US5953033 A 19990914 [US5953033]
- US5963238 A 19991005 [US5963238]
- US5966156 A 19991012 [US5966156]
...
- US6076920 A 20000620 [US6076920]
- US6109741 A 20000829 [US6109741]
- US6113229 A 20000905 [US6113229]
- US6120132 A 20000919 [US6120132]
- US6239822 B1 20010529 [US6239822]
- US6341853 B1 20020129 [US6341853]
TI - (A2) Continuous refill of spring bag reservoir in
an ink-jet printer/plotter
PA - (A2) HEWLETT PACKARD CO (US)

- 195 Patent Numbers
- 61 Priority Numbers
- Very difficult to find relationship with each other
- 58 family records (inventions) in FamPat

FamPat Family Design



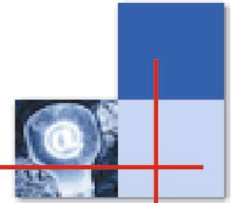
- Variation of EPO Strict Family
- “Strict-Modified” or FamPat Family

FamPat Family Rules:

Links made by

- Comparing Priority and Application numbers
- Specific rules by country
- Information gathered from other sources
 - National files
 - Legal Status

FamPat Family Rules



Strict

- “Strict” Family

EP & PCT Route

- Members countries linked to EP and PCT as indicated

Euro/PCT

- EP applications and the corresponding PCT document as identified in EP national file

US/PCT

- US applications and corresponding PCT document

Legal

- Legal Status check for indication of direct relationship

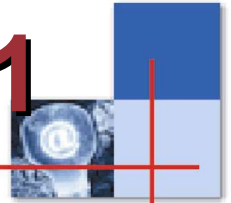
US PGP/Grant/Provisional

- Links as identified in the filing details of USPTO/DocDb

JP

- Multiple JP priorities claimed in US, PCT and other countries

FamPat Family Example 1



**Comprehensive retrieval of families and
incorporating information from Legal
Status**

~~PN - WO200041093 A2 20000713 [WO200041093]~~

STG: Publ. Of int. Appl. W/out int. Search rep

AP : 1999WO-US29499 19991213

- GB0019609 D0 20000927 [**GB200019609**]

STG: Application for patent

AP : 2000GB-0019609 19991213

- GB2348994 A 20001018 [GB2348994]

STG: Application published

- DE19982999 T0 20010809 [DE19982999]

STG: Trans. Of publ. Of internat. Application

AP : 1999DE-1082999 19991213

- WO200041093 A9 20010907 [WO200041093]

STG: Complete corrected document

- WO200041093 A3 20020919 [WO200041093]

STG: Subsqu. Publ. Of int. Search report

- JP2003518659 T 20030610 [**JP2003518659**]

STG: Unexam. Pat. Appl. On foreign appl.

AP : 2000JP-0592751 19991213

- GB2348994 B 20040204 [GB2348994]

STG: Patent granted

- US2004098547 A1 20040520 [US20040098547]

STG: Utility Patent Application published on or
after January 2, 2001

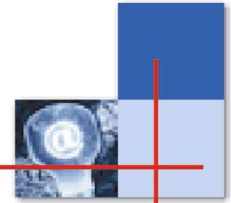
AP : 2003US-0610011 20030630

FD : Cont. of: US 09224637 - 19981231

[~~1998US-0224637~~] PENDING



Legal Status Links



LGST(C) EPO

PN - WO200041093 A2 20000713 [WO200041093]

- WO200041093 A9 20010907 [WO200041093]

- WO200041093 A3 20020919 [WO200041093]

AP - WOUS9929499 19991213 [1999WO-US29499]

ACTE- 20000713 WO/AK [+]

DESIGNATED STATES CITED IN A SUBSEQUENTLY PUBLISHED
SEARCH REPORT

DE GB JP KR SE

- 20000809 WO/ENP

ENTRY INTO THE NATIONAL PHASE IN:

{GB 200019609A [2000GB-0019609]} GB app. linked to PCT

- 20000829 WO/ENP

ENTRY INTO THE NATIONAL PHASE IN:

{JP 2000 592751A [2000JP-0592751]} JP app. linked to PCT

FamPat Family Example 2



**Example of what is not considered a
FamPat family member**

- **Granted US patent as appears in filing details of FamPat family member**
- **But not included in family**

PN - EP0863017 A2 19980909 [EP-863017]
STG: Pub. Of applic. Without search report
AP : 1998EP-0301554 19980303

- JP10244684 A 19980914 [JP10244684]
STG: Doc. Laid open to publ. Inspec.
AP : 1998JP-0049541 19980302

- EP0863017 A3 19981202 [EP-863017]
STG: Publi. Of search report

- CN1215662 A 19990505 [CN1215662]
STG: Unexamined application
AP : 1998CN-0107145 19980303

- **US6239822 B1 20010529 [US6239822]**
STG: U.S. Patent (no pre-grant pub.) after Jan. 2,
2001
AP : 2000US-0539559 20000331
FD : Cont. of US805859 19970303 [1997US-0805859]
FD : Continuation of: **US6076920**

- EP0863017 B1 20010718 [EP-863017]
STG: Patent

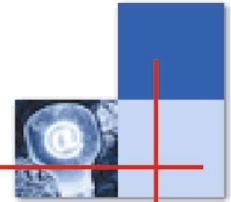
- DE69801126 D1 20010823 [DE69801126]
STG: Granted EP number in bulletin
AP : 1998DE-6001126 19980303

- ES2159169 T3 20010916 [ES2159169]
STG: Transl. Compl. Txt. Of grted Eur. Pat.
AP : 1998ES-0301554 19980303

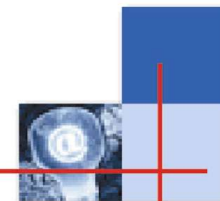
- DE69801126 T2 20011031 [DE69801126]
STG: Trans. Of EP patent

- CN1121322 C 20030917 [CN1121322C]
STG: Granted patent

PR - **1997US-0805859** 19970303; 2000US-0539559 20000331
EC - ~~B41J 002/175C~~

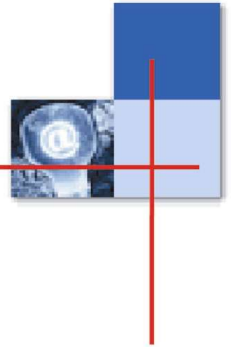


New Art



PN - US6076920 A 20000620 [US6076920]
STG: United States patent
AP : 1997US-0805859 19970303
FD : C.I.P. of US726587 19961007 [1996US-0726587]
FD : C.I.P. of US454975 19950531 [1995US-0454975]
FD : Continuation-in-part of: US5745137
FD : Continuation-in-part of: US5874976
TI - Replaceable ink supply module (bag/box/tube/valve) for
replenishment of on-carriage inkjet printhead
PA - HEWLETT PACKARD CO
PA0 - Hewlett-Packard Company, Palo Alto CA [US]
IN - CALATAYUD ROSA; RUIZ FELIX; ZAPATA ELIZABETH; GUNTHER
MAX STEPHEN; COINER ERICH; GILES ROBERT R; YOUNG MARK E; STEPHENS JR RONALD D
PR - 1995US-0454975 19950531; 1996US-0726587 19961007;
1997US-0805859 19970303
EC - B41J-002/175C
- B41J-002/175L

Dynamic Family Design



Analysis shows

- Patent families are in constant flux
- “Basic” concept imposes constraints on the underlying family composition
- Could result in incomplete families

Leads to:

- Inconsistent families
- Duplicate patent numbers in family records

FamPat incorporates a dynamic family structure

Dynamic Family Example

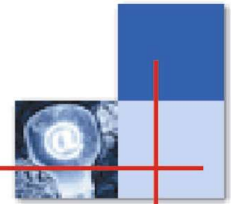
PN - JP2001000583 A 20010109 [JP2001000583]
TI - SOLID GOLF BALL
PA - BRIDGESTONE SPORTS CO LTD
AP - JP17363599 19990621 [1999JP-0173635]
PR - JP17363599 19990621 [1999JP-0173635]

PN - JP2001000584 A 20010109 [JP2001000584]
TI - SOLID GOLF BALL
PA - BRIDGESTONE SPORTS CO LTD
AP - JP17363699 19990621 [1999JP-0173636]
PR - JP17363699 19990621 [1999JP-0173636]

PN - JP2001000587 A 20010109 [JP2001000587]
TI - SOLID GOLF BALL
PA - BRIDGESTONE SPORTS CO LTD
AP - JP17363799 19990621 [1999JP-0173637]
PR - JP17363799 19990621 [1999JP-0173637]

PN - US6361453 B1 20020326 [US6361453]
TI - Solid golf ball
PA - BRIDGESTONE SPORTS CO LTD (JP)
AP - US49764100 20000203 [2000US-0497641]
PR - JP17363599 19990621 [1999JP-0173635]
- JP17363699 19990621 [1999JP-0173636]
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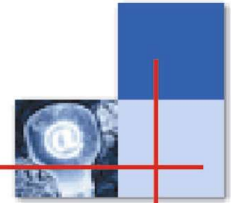
FAN - 20042792221112
PN - JP2001000587 A 20010109 [JP2001000587]
STG: Doc. Laid open to publ. Inspec.
AP : 1999JP-0173637 19990621
- JP2001000584 A 20010109 [JP2001000584]
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AP : 1999JP-0173635 19990621
- US6361453 B1 20020326 [US6361453]
STG: U.S. Patent (no pre-grant pub.) after Jan. 2,
2001
AP : 2000US-0497641 20000203
TI - Solid golf ball
PA - BRIDGESTONE SPORTS CO LTD
PA0 - Bridgestone Sports Company, Ltd., Tokyo [JP]
IN - YAMAGISHI HISASHI; MARUKO TAKASHI; MASUTANI YUTAKA;
NAKAMURA ATSUSHI
PR - 1999JP-0173635 19990621; 1999JP-0173636 19990621;
1999JP-0173637 19990621
IC - A63B-037/04 A63B-037/06
EC - A63B-037/00G
- A63B-037/04
- A63B-037/06
PCL - ORIGINAL (O) : 473371000; CROSS-REFERENCE (X) :
473374000 473376000 473377000
UP - 2001-07



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 - dwdm (65/90)
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 - air bags (3)
 - complete set (2/72)**
 - feet (0/0)
 - motorcycles (3/3)
 - golf ball (5)
 - collection (23/57)
 - composition (0/0)
 - construction (0/0)
 - dimples (0/0)
 - others (2/2)
 - recycle bin (2)

Groups

Workfiles

air bags	complete set
Select all Unselect all	
<input type="checkbox"/> CA2266192	★★★★★
(A1) ACCIDENTAL AIRBAG DEPLOYMENT PROTECTION DEVICE ENBOK MARC D (CA) 2003-51	
<input type="checkbox"/> E10004307	★★★☆☆
(A1) Airbag-System für ein Motorrad oder einen Motorroller (A1) RAAB ANDREAS (DE) Update: 2001-31	
<input type="checkbox"/> DE10030471	★★★★★
(C1) Automobile airbag module has mechanical locking device and electrical contact device for connecting gas generator detonation device to control device (C1) BOSCH GMBH ROBERT (DE)	
<input type="checkbox"/> 2046	★★★★★
ichtung zum Schutz der unteren Gliedmaßen des Fahrers und/oder Beifahrers eines Kraftfahrzeuges (A1) SAI AUTOMOTIVE SOMMER IND NANT (FR) Update: 2001-06	
<input type="checkbox"/> DE10039661	★★★★★
(A1) Passenger vehicle safety system includes inflatable airbags onto lower leg and feet to flex knee and swing leg back thus reducing pelvic load assisted by seat belt restraint. (A1) TRW REPA GMBH (DE); TRW INC (US) Update: 2001-09	
<input type="checkbox"/> DE10046886	★★★★★
(A1) Inflatable foot mat for motor vehicles consists of multi-layer mat with airbag-type chamber to protect driver's/passenger's self	

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Address http://pexmdvt.questel.atos-infogerance.fr/jsp/frm_document.jsp?key=1470

My workfiles K < EP1342653 > > | (A2) Air bag apparatus for a scooter type motorcycle
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Biblio Abstract Description **Claims** First page **Drawing** Complete

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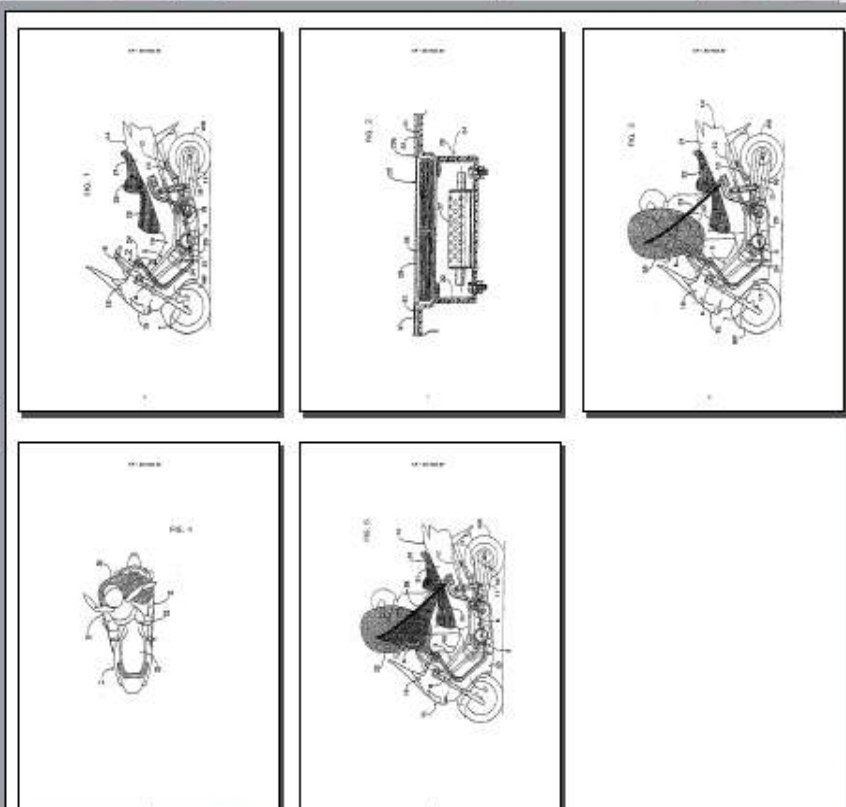
Claims

1. An air bag apparatus for a scooter type motorcycle, having an air bag (26) that is capable of restraining an operator on a seat (22) from a front direction, in response to expansion of said air bag, wherein, said air bag (26), and a vehicle body (14) in the rear of said seat (22), are linked via restraining belts (31) or restraining nets (35) being a pair at right and left, which are stored in said vehicle body (14) when said air bag (26) is in a state of folded, and which become in a state of tension on both exterior sides at right and left of the operator on the seat (22), when said air bag (26) expands.

2. An air bag apparatus for a scooter type motorcycle as defined by claim 1, wherein, a vehicle body cover (15) constituting said vehicle body (14) together with a vehicle body frame (5) having a head pipe (6) on a front end thereof, said head pipe supporting a front fork (7) in orientation-manipulative manner, comprises a front cover (16), which covers a circumference of said head pipe (6), and an air bag housing (25) for storing said air bag (26) is installed at a forward position of said seat (22) and in the rear of said front cover (16).

3. An air bag apparatus for a scooter type motorcycle as defined by claim 2, wherein, said vehicle body cover (15) comprises, in addition to said front cover (16), leg shields (17), being a pair at right and left for covering forward portions of the operator's legs, said leg shields being joined with both right and left sides of the front cover (16), respectively, footrest sections (18), being a pair at right and left connecting respectively to the leg shields (17) for supporting feet of the operator, and a rear cover (21) jointed with the footrest sections (18) for covering both right and left sides of a rear part of said vehicle body frame (5), wherein, said restraining belts (31) or said restraining nets (35), an end of which is fixedly linked with said air bag (26) and another end of which is linked with said rear cover (21), are stored in storage grooves (33), being a pair at right and left, which are provided over along said front cover (16), said leg shields (17), said footrest sections (18) and said rear cover (21), in such a manner as allowing said restraining belts (31) or said restraining nets (35) to be pulled out, in response to a tensions thereof, with expansion of said air bag (26).

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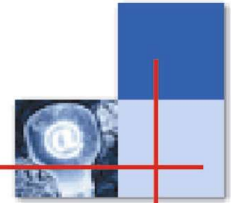
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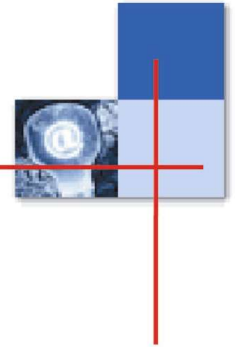
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