



European IPR Helpdesk

Fact Sheet

How to search for patent information



*This fact sheet has been developed in
cooperation with*



January 2018¹

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¹ This fact sheet was initially published in November 2011, and first updated in September 2014.

Introduction

The objective of this fact sheet is to introduce patent searching using one of the most used patent databases, Espacenet, which includes smart and advanced search options.

Conducting patent searches is very useful for several purposes, not only for organisations such as SMEs and universities, but also for researchers. Indeed, patents include both technical and legal information and can consequently be used to:

- guide the definition of an organisation's IP strategy (identifying, for example, any barriers to developing an IP strategy, the avoidance of obstacles, etc.);
- define a state of the art (to find out what already exists, to check novelty, to improve the quality of a patent application, to understand the IP landscape surrounding your projects and IP);
- check for freedom to operate (to check if you do not infringe someone else's rights, to search for validity of third parties' IP);
- check if someone is not in a position of infringing your rights (infringement still needs to be proved);
- keep track on who is doing what (continuous monitoring of patent applications filing).

Thus, there are many reasons to learn how to search for patents.

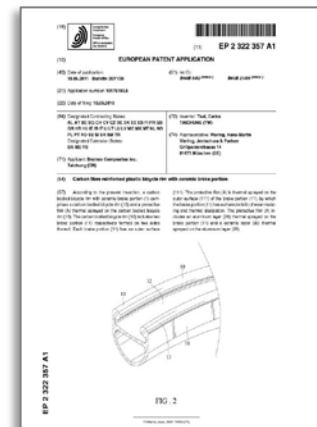
In order to perform good and useful searches, it is essential to understand the structure of patent information, whatever form it can take (full text or bibliographic) as well as where and how to use the search tools available - elements that we also will present in this fact sheet.

1. What information is presented in a patent document²

Patent documents are structured in **3 parts**:

- **The first (front) page** presents general information about the patent:

- The title;
- A summary of the invention;
- The name of the inventors;
- The name of the patent assignee (= patent owner or patent applicant);
- Several dates (priority, publication, etc.);
- Several numbers (publication number, priority number, etc.);
- The legal status of the document (patent application, granted patent, etc.);
- The designated states (states in which protection has been asked for);
- Drawing.



- **The technical description** - beginning on the second page of the document. It presents a description that can cover more than one page, which includes the technical problem which the invention solves, the state of the art, as well as a technical description of the invention.



- **A third part** includes the drawings, the claims (that provide a clear description of what is legally protected) and possibly a search report (see image).



² Example of the European patent.

2. Where to search for patent information?

The easiest way to retrieve patent-related information is to use online databases.

The information presented in databases can take different forms. We can find databases including the full text of patent documents, but also databases presenting a “summary” of them. The latter generally present the information contained on the patents’ first page (possibly enriched with additional information), called the bibliographic reference.

Those databases are respectively called full-text databases and bibliographic databases.

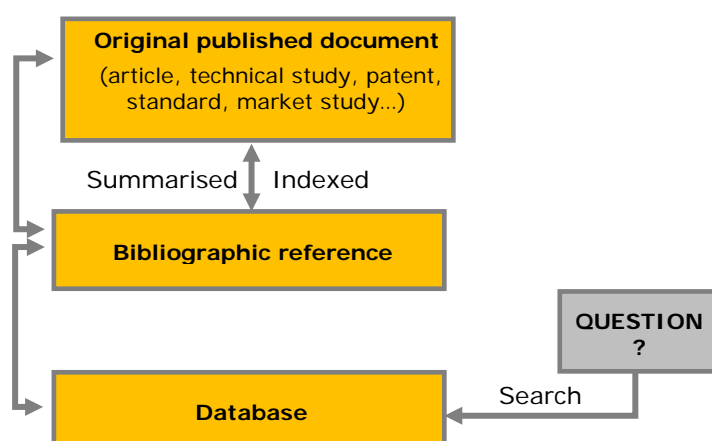


Figure 1: Access to information

It is worth noting that databases can also be classified according to the type of information that they include: technical or legal. Indeed, apart from the legal information that is already included in patent documents, additional databases including information related to the legal status of the patent, the payment of fees and owners and representatives, are also available³.

The most common way used to retrieve patent-related information is the use of bibliographic databases. Such information sources are certainly well structured and allow you to perform efficient searches.

Bibliographic references refer to publications (here, the patents).

A bibliographic reference is a textual document (usually including an image) summarising the original document. Such references give information about patents and help the invention to be identified easily. For easy retrieval, producers of databases generally add information such as internal codes or keywords describing the subject treated in the original document.

³ Note that to check the real legal status of a patent, it is strongly advised to consult national offices to get more accurate results. Legal databases are useful to check the non-validity or withdrawal of patents. Contact details may be found on <http://www.innovaccess.eu>.

Generally, a patent bibliographic reference includes:

- Title;
- Inventor;
- Patent assignee;
- Abstract;
- Codes (classification codes) and numbers (patent numbers and related dates);
- Drawings or images;
- Keywords.

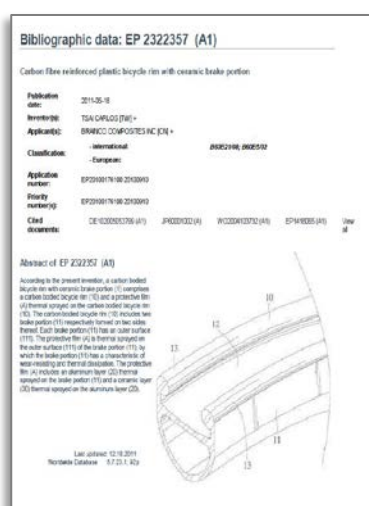
However, a number of differences can be found, according to the producer of the reference and the kind of information, which the original document includes.

Information in bibliographic databases is typically structured in what is called “informational fields”. This means that the same type of content is always placed into the same informational field: the information related to the title is positioned in the title field; the information related to the name of the inventors is always presented in the inventor field, etc.

It is this information structure that allows you to retrieve patents more easily.

Examples of patent bibliographic references:

Espacenet



Commercial server (Questel-Orbit)



3. Search for information: generalities

When searching for information, you have to select keywords that define the object that you are looking for. The first thing to do is to clearly define the object of the search: the different parts or concepts of the search, the geographic area, the firm or time period, etc.

Once these first elements are clearly defined, you should choose the best keywords describing the invention. Find synonyms of the terms describing the invention which you are looking for, and try to avoid terms with a double signification, homonyms or so-called STOP Words (e.g. can). Specifying the context of their use and avoiding words without any technical signification, such as “general”, “system” is essential before running any query.

TIP: To find synonyms, use dictionaries, thesauruses (synonym dictionaries) and even web search engines.

You should then regroup all the terms related to each concept, and associate terms as well as concepts using Boolean operators (AND, OR, NOT) to construct a query.

Example:

You are looking for “warning systems allowing the continuous verification of car tire pressure”.

You can find several concepts and associated keywords in the table below:

Concepts	Associated keywords
Tire	tire, tyre, etc.
Pressure	pressure, etc.
Continuous verification	verification, check, monitoring, etc.
Warning	warning, alarm, etc.

A related query could be:

((tire OR tyre) AND pressure) AND (verify OR check OR monitor) AND (warn OR alarm)

Note: Do not forget that some words could be written differently between UK English and US English (e.g. airplane and aeroplane, tire and tyre), and that some letters can be substituted (“s” and “z”, as in “analyse” and “analyze”).

Do not forget that, generally, searches are also run in patent applications (not all patents available in databases have been granted or are in force). So, according to the purpose of the search, the validity of patents has to be checked.

TIP: Generally, when searching with database engines available on the web, you can use quotation marks (" ") to search for an entire expression.

4. Searching in Espacenet

Espacenet is a database provided by the European Patent Office, which allows free access to about 100 million patent documents from all over the world in four collections:

- Published patent applications from more than 100 countries worldwide
- Collection of published applications in English
- Collection of published applications in French
- Collection of published applications in German

As such, Espacenet is a very interesting multi-database tool to consider when searching for patent information. Among several options, Espacenet allows running a "Smart search" and is available at <https://worldwide.espacenet.com/>.

4.1 How to run a Smart search in Espacenet

Smart search automatically searches in the Worldwide database.



1. In the Smart search mask you can enter your query with or without field identifiers. You can enter up to 20 search terms (a maximum of ten terms per searchable piece of bibliographic data - informational field) and combine them with the Boolean operators AND, OR, NOT.

2. Click on "Search" to get results to your query.

Example Query:

((tire OR tyre) AND pressure) (verify OR check OR monitor) (warn OR alarm)



Espacenet
 Patent search

Deutsch English Français
 Contact
 Change country ▼

About Espacenet Other EPO online services ▼

Search Result list My patents list (0) Query history Settings Help

Smart search
 Advanced search
 Classification search


Espacenet: free access to over 100 million patent documents

Smart search: ⓘ Siemens EP 2007

((tire OR tyre) AND pressure) (verify OR check OR monitor) (warn OR alarm)

Clear Search

Maintenance news



Espacenet
Patent search

Deutsch English Français
Contact
Change country ▼

⌵ About Espacenet Other EPO online services ⌵

Search
Result list
My patents list (0)
Query history
Settings
Help

[Refine search](#) → Results page 1

Smart search
Advanced search
Classification search

Result list

☐ Select all (0/26)
 ☐ Compact
 Export (CSV / XLS)
 Download covers
 Print

Approximately **176** results found in the Worldwide database for:
 (([txt = tire OR txt = tyre] AND txt = pressure) AND ([txt = verify OR txt = check] OR txt = monitor)) AND (txt = warn OR txt = alarm) using Smart Search

1

Sort by Publication date
 Sort order Descending
 Sort

#	Title	Inventor	Applicant	CPC:	IPC:	Publication info:	Priority date:
1.	Tire pressure monitor system (TPMS) pairing system on production line and pairing method	* INVENTOR: YOU SHANQUAN GUO ZHENHUA (+4)	APPLICANT: SHANGHAI WEIBIAO AUTO PARTS MFG CO LTD	CPC:	IPC: B60C23/04 B60C23/20 B62D06/00	Publication info: CN100927944 (A) 2017-05-10	Priority date: 2016-12-30
2.	Automobile tire air pressure detection device	* INVENTOR: LI JIANZHONG	APPLICANT: CHONGQING YIKAI TECH CO LTD	CPC:	IPC: B60C23/04 B60C23/20	Publication info: CN206198705 (U) 2017-05-24	Priority date: 2016-09-23
3.	Tire pressure monitoring system based on singlechip	* INVENTOR: GU HAN HONG YING (+1)	APPLICANT: CHANGSHU INST TECHNOLOGY	CPC:	IPC: B60C23/04	Publication info: CN206141240 (U) 2017-05-03	Priority date: 2016-11-11
4.	Tire management system	* INVENTOR: XU JIE	APPLICANT: CONTINENTAL AUTOMOTIVE	CPC:	IPC: B60C23/04	Publication info: CN100515323 (A) 2016-11-20	Priority date:

Related links ➤

The list of results is displayed for analysis.

Note: Words are searched for in the titles and abstracts, description and claims fields; names are searched for in the inventor and applicant fields.

When you enter keywords, numbers or dates in Smart search, the search engine will identify whether you are looking for a number, a date, a name or a keyword in the title or abstract. However, you can fine-tune your searches by using field identifiers, hence telling the search engine in which field you would like to search.

Example: **"ia=smith"** forces the system to look for the word "smith" in the inventor (i) and the applicant (a) fields only, or by typing the name **"Smith"** with a capital letter indicates you wish to search within applicant and inventor fields.

The screenshot shows the Espacenet Patent search interface. At the top, there is a header with the Espacenet logo and navigation links for Deutsch, English, Français, and Contact. Below the header, there is a navigation bar with links for Search, Result list, My patents list (0), Query history, Settings, and Help. The main content area displays a 'Result list' for the search 'la = smith'. It shows three results, each with a star icon, the inventor's name, the applicant's name, the CPC and IPC classification codes, the publication information, and the priority date. The first result is '1. ESTROGEN RECEPTOR MODULATORS AND USES THEREOF' by KAHIRAMAN MEHMET [US] and GÖVEK STEVEN P. [US]. The second result is '2. Method for isolating a chemotherapeutic agent resistant cancer cell with stem cell properties' by GAZDA LAWRENCE [US] and SMITH BARRY [US]. The third result is '3. METHOD AND APPARATUS FOR INSPECTION OF COOLING TOWERS' by STUART OLIVER [GB].

4.2 Advanced search using Espacenet

The advanced search interface on Espacenet provides the possibility to combine different search terms (words, names, dates, numbers and classification symbols). Search terms have to be entered in the respective search field. When introducing search criteria in several fields, the system combines them using the AND operator (each term being searched only in the field within which it has been inserted).

When searching for patents, it is advisable to combine textual search terms with patent classification codes/symbols.

4.2.1 In the worldwide database

The screenshot shows the 'Advanced search' interface on Espacenet. It includes a 'Quick help' section on the left with various search tips. The main search area contains several input fields for different search criteria: 'Select the collection you want to search in' (set to 'Worldwide'), 'Enter your search terms - CTRL-ENTER expands the field you are in', 'Enter keywords' (with fields for Title, Title or abstract, and Keywords), 'Enter numbers with or without country code' (with fields for Publication number, Application number, and Priority number), 'Enter one or more dates or date ranges' (with a field for Publication date), 'Enter name of one or more persons/organisations' (with fields for Applicant(s), Inventor(s), and Address), and 'Enter one or more classification symbols' (with fields for CPC and IPC). A 'Search' button is located at the bottom right.

Search is possible in the following fields:

- ✓ Title;
- ✓ Title or abstract;
- ✓ Publication number;
- ✓ Application number;
- ✓ Priority number;
- ✓ Publication date;
- ✓ Applicant;
- ✓ Inventor;
- ✓ Cooperative Patent Classification (CPC);
- ✓ International Patent Classification (IPC).

4.2.2 In the collection of published applications in English, French or German (full-text searching)

Search is possible in the following fields:

- ✓ Title, abstract and full text;
- ✓ Publication number;
- ✓ Application number;
- ✓ Priority number;
- ✓ Publication date;
- ✓ Applicant;
- ✓ Inventor;
- ✓ Cooperative Patent Classification (CPC);
- ✓ International Patent Classification (IPC).

4.3 What are patent classification codes/symbols?

Patent classification symbols indicate the technical field or fields to which the patent application relates. The most used classification is the **International Patent Classification (IPC)**.

There are also other classifications, such as **the Cooperative Patent Classification (CPC)**, a bilateral system which has been jointly developed by the European Patent Office (EPO) and the United States Patent and Trademark Office (USPTO).

CPC replaces the former European Patent Classification, combines the best classification practices of the two offices and is also based on the IPC but is more detailed. It is in fact an extension of the IPC that has been developed because it is considered that the IPC classification entries are too broad (thereby retrieving too many documents); CPC splits them up into more sub-groups than the IPC⁴.

Classification symbols are given to patents following the examination of their content by the IP office, and consider the elements protected according to the patent's claims.

⁴ Some countries like the USA or Japan have also developed their own classification system. Classifications developed by patent database producers have also been developed in order to allow more efficient searches, such as the Derwent classification.

The IPC consists of a hierarchical classification system comprising:

- Sections;
- Classes;
- Subclasses;
- Groups (main groups and subgroups).

It includes 8 sections, classified as follows:

- Section A HUMAN NECESSITIES
- Section B PERFORMING OPERATIONS TRANSPORTING
- Section C CHEMISTRY; METALLURGY
- Section D TEXTILES; PAPER
- Section E FIXED CONSTRUCTIONS
- Section F MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING
- Section G PHYSICS
- Section H ELECTRICITY

Each section being divided into classes, for example:

Section A HUMAN NECESSITIES

Subsection: Agriculture

Class A 01 AGRICULTURE; FORESTRY; ANIMAL HUSBANDRY; HUNTING; TRAPPING; FISHING

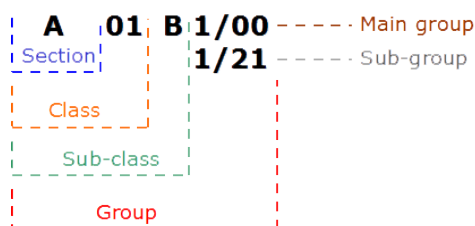
Subsection: Foodstuffs; Tobacco

Class A 21 BAKING; EQUIPMENT FOR MAKING OR PROCESSING DOUGHS; DOUGHS FOR BAKING

Class A 22 BUTCHERING; MEAT TREATMENT; PROCESSING POULTRY OR FISH

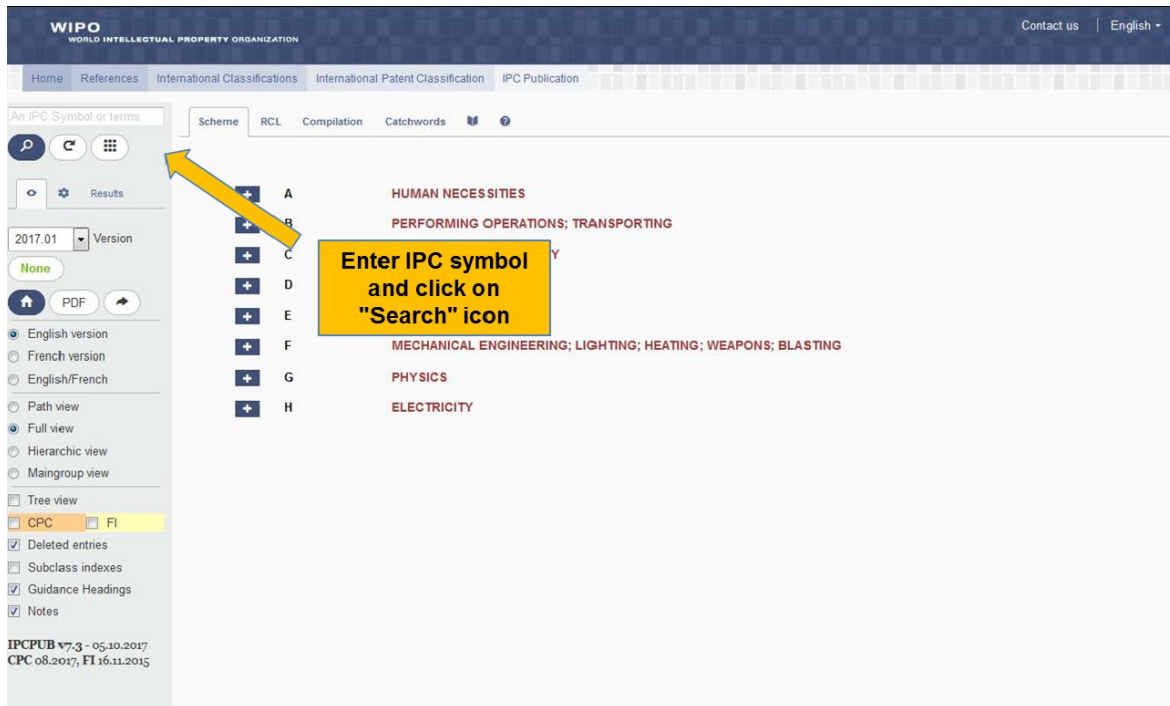
Class A 23 FOODS OR FOODSTUFFS; THEIR TREATMENT, NOT COVERED BY OTHER CLASSES

Example of an IPC symbol:



4.3.1 How can I find out what an IPC symbol means?

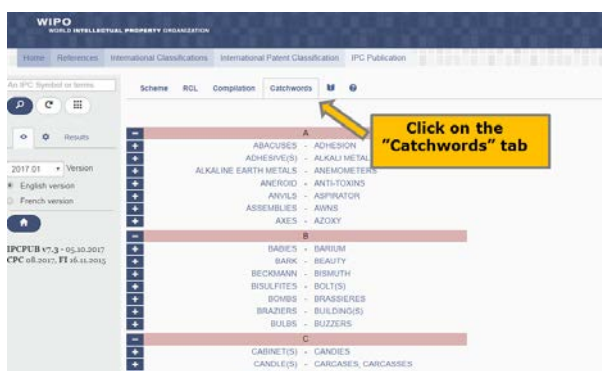
The official publication of the IPC, administered by the World Intellectual Property Organization (WIPO), provides a comprehensive collection of IPC symbols together with their titles and definitions, which indicates the technology represented by each symbol. The official publication of the IPC can be found at <http://www.wipo.int/ipcpub/>.



4.3.2 How can I find IPC symbols relevant to a particular technology?

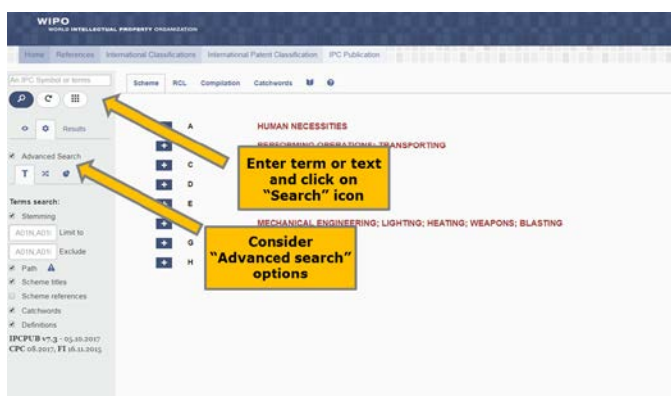
In addition to symbols and their titles with definitions, the official publication of the IPC also contains a number of useful tools and features that can help you to identify IPC symbols relevant to a particular technology. Using these tools and features can help you to avoid navigating the complex structure of the IPC in order to find the right IPC symbol.


Browse the Catchword Index



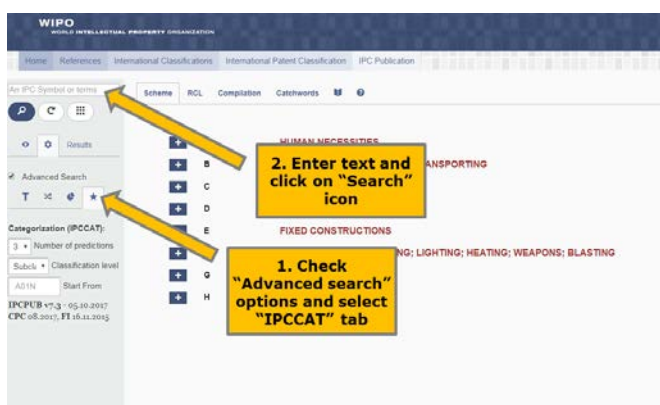
You can browse through a list of technical terms, matched with appropriate IPC symbols, by selecting the "Catchwords" tab.

Search by terms



You can also search the titles associated with symbols as well as the Catchword Index, by entering terms and clicking the "Search" icon  to perform a "Smart search" with automated search optimisation or by making use of "Advanced search" options.

Use automatic text categorisation



IPCCAT allows you to use whole segments of text, for example abstracts from patents or scientific articles, to identify relevant IPC symbols.

Another way of finding relevant IPC symbols is by looking at specific patent documents or using the analysis features provided by the free PATENTSCOPE search service provided by WIPO, available at <http://www.wipo.int/patentscope/en/>.


You can use any of the interfaces offered by PATENTSCOPE to do a keyword search. The Cross-Lingual Information Retrieval, or CLIR, interface will take one or more keywords and generate synonyms and variants in a number of different languages, helping you overcome differences in spelling and terminology mentioned earlier.

You will find the Cross-Lingual Information Retrieval interface under the search menu as shown.



You will then be able to enter your query or term, just click "Submit query" and you are off!

Approach 1: Look at a specific patent document

You can look through your results list to find relevant documents based on their title and abstract and take the IPC symbols associated with these documents. By hovering over the icon  next to IPC symbols in the results list, you can immediately see what each symbol means.

Approach 2: Analyse your results

Once you have your results, you can also analyse them using the tool built into PATENTSCOPE. Clicking on the "Analysis" bar (just above the list of bibliographic references provided as a result to your query) will open this tool and show you the top patent offices, applicants, and inventors, but also the most frequent IPC symbols in your results. If you have chosen your keywords well, these IPC symbols are likely to be relevant to the technology in which you are interested.

Countries		Main IPC		Main Applicant		Main Inventor		Pub Date	
Name	No	Name	No	Name	No	Name	No	Date	No
United States	171702	B90C	81926	BRIDGESTONE CORP	9597	Gyu Zeyou	292	2004	22242
Japan	95987	B29D	22095	YOKOHAMA RUBBER CO LTD THE	4204	OGAWA YUICHIRO	161	2005	23420
European Patent Office	63822	B29C	19663	SUMITOMO RUBBER IND LTD	3497	TURCHENKOV VLADIMIR ILICH	156	2006	24143
PCT	48548	H02K	19423	株式会社ブリヂストン	3005	Проконевко Максим Викторович	151	2008	25996
China	40949	F16C	18644	BRIDGESTONE CORPORATION	2349	SANDSTROM PAUL HARRY	145	2009	26663
Canada	35818	C08L	15822	GOODYEAR TIRE & RUBBER	2102	OCHI NAOKA	124	2010	27088
Republic of Korea	24573	F16D	15136	General Electric Company	1764	Sandstrom Paul Harry	123	2011	26651
Russian Federation (RUSSE data)	17421	F16L	13221	TOYOTA MOTOR CORP	1672	CARETTA RENATO	123	2012	24522
Spain	16483	C08K	12070	NTN CORP	1650	ISHIYAMA MAKOTO	103	2013	26647
Mexico	3916			HONDA MOTOR CO LTD	1807	MIYAZAKI SHINICHI	99	2014	2716
Brazil	3427								

4.4 Patent search using patent classification symbols

If we re-use the example of the Espacenet “Smart search”, we can also search for relevant IPC symbols before searching for patents. To do so, we can for example get the help from the automatic text categorisation and classification assistance function IPCCAT from the IPC official publication by WIPO.

If we introduce the description of the invention we are looking for, “warning systems allowing the continuous verification of car tire pressure”, we have the following results:

The screenshot displays the WIPO International Patent Classification (IPC) website. The search term "warning systems allowing to confirm" is entered in the search bar. The results are categorized by IPC class, with a focus on the B60C 23/00 class. A yellow arrow points to the IPCCAT predictions section on the left, which lists the following predictions:

- ★ Predictions
- 5 B60C 23/00
- 3 B29D 30/00
- 3 B60C 11/00

The main results table shows the following classification hierarchy:

- B** PERFORMING OPERATIONS; TRANSPORTING
- B60** VEHICLES IN GENERAL
- B60C** VEHICLE TYRES (manufacture, repairing B29); TYRE INFLATION; TYRE CHANGING; CONNECTING VALVES TO INFLATABLE ELASTIC BODIES IN GENERAL; DEVICES OR ARRANGEMENTS RELATED TO TYRES (testing of tyres G01M 17/02) [5]
- B60C 23/00** Devices for measuring, signalling, controlling, or distributing tyre pressure or temperature, specially adapted for mounting on vehicles (measuring in general G01, e.g. G01L 17/00; remote signalling in general G06; Arrangement of tyre inflating devices on vehicles, e.g. of pumps, of tanks (air pumps *per se* F04; tanks *per se* F17C); Tyre cooling arrangements [2006.01])
 - Signalling devices actuated by tyre pressure [2006.01]
 - • mounted on the wheel or tyre [2006.01]
 - Signalling devices actuated by deformation of the tyre (wear-indicating arrangements B60C 11/24) [2006.01]
 - • by touching the ground [2006.01]
 - Arrangement of tyre-inflating pumps mounted on vehicles [2006.01]
 - • operated by a running wheel [2006.01]
 - • operated by the prime mover of the vehicle [2006.01]
 - Arrangement of air tanks mounted on vehicles [2006.01]
 - Tyre cooling arrangements [2006.01]
 - • for dissipating heat [2006.01]
 - Devices for measuring or signalling tyre temperature [2006.01]

The IPCCAT predictions section is highlighted with a yellow box and a yellow arrow pointing to it.

In the second step, we can use the “Advanced search” interface of Espacenet to search for patents and introduce keywords and IPC symbols in the related fields.

European Patent Office
Espacenet
Patent search

About Espacenet Other EPO online services

Search Result list My patents list (0) Query history Settings Help

Smart search
Advanced search
Classification search

Quick help

Enter the collection you want to search in
Worldwide - collection of published applications from 100+ countries

Enter your search terms - CTRL-ENTER expands the field you are in

Enter keywords
Title: plastic and bicycle
Title or abstract: (title OR type) AND pressure (verify OR check OR monitor) (warn OR alarm)

Enter numbers with or without country code
Publication number: WO2008014520
Application number: DE201310112935
Priority number: WO1995US15625

Enter one or more dates or date ranges
Publication date: 2014-12-31 or 20141231

Enter name of one or more persons/organisations
Applicant(s): Institut Pasteur
Inventor(s): Smith

Enter one or more classification symbols
CPC: F03G7/10
IPC: B60C23

Clear Search

This will provide this result list:

European Patent Office
Espacenet
Patent search

Deutsch English Français Contact Change country

About Espacenet Other EPO online services

Search Result list My patents list (0) Query history Settings Help

Result list

Approximately 151 results found in the worldwide database for (title OR type) AND pressure (verify OR check OR monitor) (warn OR alarm) as the IPC classification

Sort by: Publication date Sort order: Descending

Inventor	Applicant	CPC	IPC	Publication info	Priority date
★ YOU SHANQUAN YOU SHANQUAN	SHANGHAI WEBB AUTO PARTS MPO CO LTD	CPC: B60C23/04 B60C23/00	IPC: B60C23/04 B60C23/00	CN105527844 (A) 2017-05-10	2016-12-30
★ LI JIANQING	CHONGQING YIKAI TECH CO LTD	CPC: B60C23/04 B60C23/20	IPC: B60C23/04 B60C23/20	CN208188158 (U) 2017-05-24	2016-04-23
★ GU HAN HONG YING	CHANGSHU NET TECHNOLOGY	CPC: B60C23/04	IPC: B60C23/04	CN208141242 (U) 2017-05-23	2016-11-11
★ XU JIE QI CHONGHENG	CONTINENTAL AUTOMOTIVE FAWET (SHANGHAI) CO LTD	CPC: B60C23/04	IPC: B60C23/04	CN105115323 (A) 2017-03-02	2016-11-25
★ GU HAN HONG YING	CHANGSHU NET TECHNOLOGY	CPC: B60C23/04	IPC: B60C23/04	CN105115321 (A) 2017-03-02	2016-11-11
★ GUO RUPENG GAO XIAOPENG	HEFEI HANXIN INTELLIGENT CONTROL TECH CO LTD	CPC: B60C23/02 H02J50/12	IPC: B60C23/02 H02J50/12	CN208179339 (U) 2016-12-07	2016-05-26
★ GUO YUNJIA	JIANSHI HUICANGJIA INFORMATION TECH CO LTD	CPC: B60C23/02	IPC: B60C23/02	CN105424247 (A) 2016-12-21	2016-03-24
★ WANG LINGA	TIANJIN YUEHENG CONSTRUCTION ENG CO LTD	CPC: B60C23/02	IPC: B60C23/02	CN105711349 (A) 2016-06-29	2016-04-26

Alternatively, Espacenet offers a Classification search tool. This service allows users to search for the most appropriate IPC symbol according to keywords or search within the classification symbols for finer sub-classes based on CPC classification:

Available at:

<http://worldwide.espacenet.com/classification>. You use it by entering terms or classification symbols in the search mask.

The screenshot shows the Espacenet Patent search interface. At the top, there's a header with the Espacenet logo and navigation links. Below the header, there's a search bar with the placeholder text 'Type keywords or classification symbol'. To the right of the search bar, there's a 'Search' button. Below the search bar, there's a table of classification symbols and their descriptions. The table has two columns: 'Symbol' and 'Classification and description'. The symbols listed are A, B, C, D, E, F, G, H, and Y. The descriptions are: A: HUMAN NECESSITIES, B: PERFORMING OPERATIONS; TRANSPORTING, C: CHEMISTRY; METALLURGY, D: TEXTILES; PAPER, E: FIXED CONSTRUCTIONS, F: MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING, G: PHYSICS, H: ELECTRICITY, and Y: GENERAL TAGGING OF NEW TECHNOLOGICAL DEVELOPMENTS; GENERAL TAGGING OF CROSS-SECTIONAL TECHNOLOGIES SPANNING OVER SEVERAL SECTIONS OF THE IPC; TECHNICAL SUBJECTS COVERED BY FORMER USPC CROSS-REFERENCE ART COLLECTIONS (XRACS) AND DIGESTS.

A list of classification symbols are provided as a result to your query.

The screenshot shows the Espacenet Patent search interface. At the top, there's a header with the Espacenet logo and navigation links. Below the header, there's a search bar with the placeholder text 'Type keywords or classification symbol'. To the right of the search bar, there's a 'Search' button. Below the search bar, there's a table of classification symbols and their descriptions. The table has two columns: 'Symbol' and 'Classification and description'. The symbols listed are B60C 23/00, B60C 29/00, H01H 35/00, B60R 25/00, B29C 35/00, F16P 20/100, Y10T 132/00, H01G 1/00, B29D 30/00, and B60R 16/00. The descriptions are: B60C 23/00: Devices for measuring, signaling, controlling, or distributing tyre pressure or temperature, specially adapted for mounting on vehicles (measuring in general B01, e.g. B01, 17/00; remote signaling in general B01; Arrangement of tyre inflating devices on vehicles, e.g. of pumps, of tanks (supplying air for tyre inflation B60C 3/54); Tyre cooling arrangements), B60C 29/00: Arrangements of tyre-inflating valves to tyres or rims; Accessories for tyre-inflating valves, not otherwise provided for (tools for mounting or demounting valves B60C 29/16; valves per se; valve shut-off B60C), H01H 35/00: Switches operated by change of a physical condition (operated by change of magnetic or electric field B60C 35/00; thermally-actuated switches B60C 37/00; time switches H01H 43/00; relays H01H 45/00 - H01H 61/00; sensing elements for providing continuous conversion of a variable into mechanical displacement B60C), B60R 25/00: Fittings or systems for preventing or indicating unauthorized use or theft of vehicles (locks for vehicles B60R 71/00-B60R 85/00), B29C 35/00: Heating, cooling or curing, e.g. crosslinking, vulcanizing; Apparatus therefor (moulds with incorporated heating or cooling means B29C 33/02; Thermal after-treatment of shaped articles B29C 75/02; curing devices for plastic dental prostheses B60C 32/15; before moulding B60C 13/00; chemical aspects C08A 3/00), F16P 20/100: Fail safe, Y10T 132/00: Resilient tires and wheels, H01G 1/00: Details of, or arrangements associated with, perials (arrangements for varying orientation of directional pattern H01G 3/00), B29D 30/00: Producing pneumatic or solid tyres or parts thereof (producing inner tubes B29D 33/04; constructional form of tyres or parts thereof B60C; connection of valves to inflatable elastic bodies B60C 29/00; testing of tyres B60M 17/02), B60R 16/00: Electric or fluid circuits specially adapted for vehicles and not otherwise provided for; Arrangement of elements of electric or fluid circuits specially adapted for vehicles and not otherwise provided for (circuits for protecting vehicle occupants in case of accidents B60R 24/00; safety belts B60R 22/00; sensor door locking B60R 49/00; B60R 77/00).

By clicking on the title of a given classification symbol, the sub-classes can be opened.

If you tick the square to the left of a classification symbol, it will automatically appear in the "Selected classifications" box.

You can, then, either search for patents classified in this area of technology or you can choose to copy it to your search form.

The screenshot shows the Espacenet Patent search interface. The top navigation bar includes the Espacenet logo, language options (Deutsch, English, Français), and a 'Change country' dropdown. Below the navigation bar, there are tabs for 'Search', 'Result list', 'My patents list (0)', 'Query history', 'Settings', and 'Help'. The 'Settings' tab is highlighted with a yellow arrow. The main content area displays the 'Cooperative Patent Classification' (CPC) tree. The left sidebar contains search options (Smart search, Advanced search, Classification search) and a 'Selected classifications' box. The main area shows the CPC hierarchy for B60C 25/00, with various sub-classes listed and their descriptions. A yellow arrow points to the 'Settings' menu in the top navigation bar.

TIP: When using Espacenet for patent search, under the Settings menu, enable "Query history", "Classification popups" and "Highlighting". It will facilitate your work, especially the analysis of the results of your queries.

The screenshot shows the Espacenet Patent search interface with the 'Settings' menu open. The 'Settings' tab is highlighted with a yellow arrow. The 'Settings' menu contains three options, all of which are checked: '1. Enable query history', '2. Enable classification popups', and '3. Enable highlighting'. The 'Enable query history' option has a sub-option 'Number of query history entries to save:' set to '10'. The 'Enable classification popups' option has a sub-option 'The pop-up is available on search results list, bibliographic view and classification search'. The 'Enable highlighting' option has a sub-option 'Tick the box to activate the highlighting of search terms'. A yellow arrow points to the 'Settings' tab in the top navigation bar.

Useful Resources

For further information on the topic please also see:

- “Espacenet brochure”:
[http://documents.epo.org/projects/babylon/eponet.nsf/0/4E8744EB66E8F944C12577D600598EEF/\\$File/espacenet_brochure_en.pdf](http://documents.epo.org/projects/babylon/eponet.nsf/0/4E8744EB66E8F944C12577D600598EEF/$File/espacenet_brochure_en.pdf)
- “IPC Internet Publication Help”:
<http://web2.wipo.int/classifications/ipc/ipcpub?notion=help>
- PATENTSCOPE:
<http://www.wipo.int/patentscope/en/>

GET IN TOUCH

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