



Topic 16: **Specific File Inspection and Citation Sources**

Lutz Mailänder

Head, International Cooperation on Examination and Training Section

Pretoria
17 March 2016

Common Citation Document (CCD)

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Hide CCD Double Viewer View Citations

CCD View
Compact view Sort by country Filter (1) Classifications & fields searched

#	CC	Cat.	Citation details	Claims
1	EP		Application N° EP04425475 (EP20040425475) - 30 June 2004 National Search Report	
	X	DE	4210984 A1 (REXROTH MANNESMANN GMBH [DE]) - 6 October 1994 Column 4, line 31 - column 5, line 54 Figure 1	1-5,13 6
	Y	WO	011227 A1 (SIEMENS AG [DE], et al) - 15 February 2001 Page 7, line 9 - page 9, line 3 Figure 1 Claim 17	6 1
	A	EP	0740068 A2 (LUCAS IND PLC [GB]) - 30 October 1996 Column 4, line 27 - column 5, line 13 Figure 2	1
	A	US	6257499 B1 (STURMAN ODED E) - 10 July 2001 Column 4, line 49 - column 5, line 23 Figure 4	1
2	AT		Application N° AT05425384 (AT20050425384) - 27 May 2005	
3	AT		Application N° AT05425383 (AT20050425383) - 27 May 2005	
4	DE		Application N° DE602004004254 (DE200460004254) - 30 June 2004	
5	DE		Application N° DE602005000662 (DE200560000662) - 27 May 2005	
6	DE		Application N° DE6020050003175 (DE2005600003175) - 27 May 2005	
7	EP		Application N° EP05425384 (EP20050425384) - 27 May 2005 National Search Report	

Simple families: 5 Total family members: 23

Inspector: biblio for EP20040425475

Bibliographic data: EP 1612403 (A1)

Servo valve for controlling an internal combustion engine fuel injector

Publication date: 4 January 2006

Inventor(s): RICCO MARIO [IT]; DE MATTHAEIS SISTO LUIGI [IT]; GORGOLIONE ADRIANO [IT]; DI MEO ALFONSO [IT]

Applicant(s): FIAT RICERCHE [IT]

Classifications: **International:** F02M59/46; F02M47/02
European: F02M47/02D; F02M63/00E2B; F02M63/00E4C; F02M63/00E4D

Application number: EP20040425475 20040630

Priority number(s): EP20040425475 20040630

Abstract of EP 1612403 (A1)

A control servo valve (8) is housed inside the casing of an internal combustion engine fuel injector (1), and has an actuator (9), a control chamber (13) communicating with a fuel inlet (5) and with a fuel outlet passage (22), and a shutter (35) interposed between the actuator (9) and the control chamber (13). The shutter (35) is defined by an outer lateral surface (30) of the axial rod (29).

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CCD View
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#	CC	Cat.	Citation details	Claims
7	EP		Application N° EP05425384 (EP20050425384) - 27 May 2005	
8	ES		Application N° ES04425475 (ES20040425475) - 30 June 2004	
9	ES		Application N° ES05425384 (ES20050425384) - 27 May 2005	
10	JP		Application N° JP2005192051 (JP20050192051) - 30 June 2005	
11	JP		Application N° JP2005118446 (JP20050118446) - 15 April 2005	
12	US		Application N° US11112772 (US20050112772) - 21 April 2005	
13	US		Application N° US11741474 (US20070741474) - 27 April 2007	
14	US		Application N° US11171659 (US20050171659) - 30 June 2005	
15	EP		Application N° EP05425383 (EP20050425383) - 27 May 2005	
16	JP		Application N° JP2005191978 (JP20050191978) - 30 June 2005	
17	US		Application N° US11171658 (US20050171658) - 30 June 2005	
18	AT		Application N° AT06114551 (AT20060114551) - 25 May 2006	
19	CN		Application N° CNA2006101639681 (CN20061163968) - 24 November 2006	
20	KR		Application N° KR1020060117230 (KR20060117230) - 24 November 2006	
21	EP		Application N° EP06114551 (EP20060114551) - 25 May 2006	
22	JP		Application N° JP2006147852 (JP20060147852) - 29 May 2006	
23	US		Application N° US11441641 (US2006041641) - 26 May 2006	

Simple families: 5 Total family members: 23

Inspector: biblio for EP20040425475

Bibliographic data: EP 1612403 (A1)

Servo valve for controlling an internal combustion engine fuel injector

Abstract of EP 1612403 (A1)
A control servo valve (8) is housed inside the casing of an internal combustion engine fuel injector (1), and has an actuator (9), a control chamber (13) communicating with a fuel inlet (5) and with a fuel outlet passage (22), and a shutter (35) movable along an axis (3) by the actuator (9) between a closed position and an open position to close and open the outlet passage (22) respectively. The servo valve (8) also has a fixed axial rod (29) interposed between the actuator (9) and the control chamber (13). The outlet passage (22) comes out through an outer lateral surface (30) of the axial rod (29) and the shutter (35) is defined by a sleeve which slides axially on the outer lateral surface (30), and, in the closed position, closes the outlet passage (22) so as to be subjected to a zero axial resultant force by the pressure of the fuel.

Bibliographic data: EP 1612403 (B1)

Common Citation Document (CCD)

- CCD originated from a request of commercial sector (mostly US) to have a one stop shop for citations of prior art indentified by different IPOs for members of the patent family
 - To avoid researching individual national phases
 - Facilitate comparing prior art searches
 - Faciltate identification of additional prior art
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 - Trilateral and other offices had established mechanisms for exchange of prior art search reports

Common Citation Document (CCD)


- CCD offers consolidated access to family information and the related **citation data** from JPO, USPTO, EPO, PCT, and several other jurisdictions for each respective family member.
- CCD builds on the EPO's family system and has been developed and is hosted by the EPO
 - Displays all simple families being part of an extended family
- CCD permits viewing of cited patent documents per family member
- No examination reports included
- Various display options



Common Citation Document (CCD)

- Access to citation data:
 - Link in Espacenet when viewing Inpadoc family of an application
 - Search application number or publication number directly in CCD
- Default result:
 - simple family of the application (list of application numbers)
 - Indented: list of citations for each family member (if available)
- Option to retrieve the extended family
 - List of simple families separated by "+" sign

Access in Inpadoc family list



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EP2570899 (A2) → US2013069890 (A1) → Family page 1

WO2011113363 (A1)

Bibliographic data

Description

Claims

Mosaics

Original document

Cited documents

Citing documents

INPADOC legal status

INPADOC patent family

Family list: WO2011113363 (A1) — 2011-09-22

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29 application(s) for: WO2011113363 (A1)

1 2 ▸
page 1

Sort by Priority date ▾ Sort order Descending ▾ Sort show citations

1. **AGOMELATINE HYDROBROMIDE HYDRATE AND PREPARATION THEREOF**

★ Inventor:	Applicant:	CPC:	Citations:	Publication info:	Priority date:
SHAN HANBIN [CN] YUAN ZHEDONG [CN] (+4)	SERVIER LAB [FR] SHAN HANBIN [CN] (+5)	A61K31/165 C07C233/18	CN101481321 A CN101585779 A	WO2011113363 (A1) 2011-09-22	2010-03-17
2. **Agomelatine hydrobromide hadrate and preparation thereof**

★ Inventor:	Applicant:	CPC:	Citations:	Publication info:	Priority date:
ZHANG PENG [CN] ZHU XUEYAN [CN] (+1)	SERVIER LAB [FR]	A61K31/165 C07C233/18		AP3199 (A) 2015-03-31	2010-03-17
3. **Agomelatine hydrobromide hydrate and preparation thereof**

★ Inventor:	Applicant:	CPC:	Citations:	Publication info:	Priority date:
SHAN HANBIN YUAN ZHEDONG (+4)	SERVIER LAB	A61K31/165 C07C233/18	US2011313198 A1	AU2011229619 (A1) 2012-09-27 AU2011229619 (B2) 2014-05-22	2010-03-17
4. **AGOMELATINE HYDROBROMIDE HYDRATE AND PREPARATION THEREOF**

★ Inventor:	Applicant:	CPC:	Citations:	Publication info:	Priority date:
SHAN HANBIN [CN] YUAN ZHEDONG [CN] (+4)	SERVIER LAB [FR]	A61K31/165 C07C233/18		CA2792430 (A1) 2011-09-22 CA2792430 (C) 2015-12-08	2010-03-17

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"Compact" view

- Citations are hidden; click "expand" or "+" to see the citations

The screenshot shows the WIPO CCD Viewer interface for application EP20090151293. The interface includes a header with the application number, a toolbar with options like 'Hide CCD viewer', 'Double inspector', and 'Timeline', and a 'CCD Viewer' section. The 'CCD Viewer' section has a 'Citations only view' button and an 'Expand view' button, both of which are circled in red. Below this is a table with columns for '#', 'CC', 'Cat.', 'Citation details', and 'Claims'. The first row of the table has a '+' icon in the '#' column, also circled in red. The table lists eight citations from various countries (AT, AU, CA, EP, JP, US, WO) with their respective application numbers and dates.

#	CC	Cat.	Citation details	Claims
+	EP		Application N° EP20090151293 (EP09151293) - 4 February 2000	
2	AT		Application N° AT20000914516T (AT00914516) - 4 February 2000	
3	AU		Application N° AU20000035896D (AU3589600) - 4 February 2000	
4	CA		Application N° CA20002361429 (CA002361429) - 4 February 2000	
5	EP		Application N° EP20000914516 (EP00914516) - 4 February 2000	
6	JP		Application N° JP20000597793T (JP2000597793) - 4 February 2000	
7	US		Application N° US20000495722 (US09495722) - 1 February 2000	
8	WO		Application N° WO2000US02906 (WOUS0002906) - 4 February 2000	

Filtering

- It is possible to display only family members with citations, and/or remove citations cited only by the applicants themselves (disclosure requirement; however, category D documents, ie cited by examiner as well, are not removed)

The screenshot shows the 'EP20090151293' CCD Viewer interface. The 'Filter' dropdown menu is open, showing two options: '(1) Hide applicant citations' and '(2) Hide applications without citations'. The table below lists family members with columns for '#', 'CC', 'Cat.', 'Citation detail', and 'Claims'. The table is filtered to show only family members with citations.

#	CC	Cat.	Citation detail	Claims
1	AT		Application N° [redacted]	
2	AU		Application N° AU2000035896D (AU3589600) - 4 February 2000	
3	CA		Application N° CA20002361429 (CA002361429) - 4 February 2000	
4	EP		Application N° EP20090151293 (EP09151293) - 4 February 2000	
5	EP		Application N° EP20000914516 (EP00914516) - 4 February 2000	
6	JP		Application N° JP20000597793T (JP2000597793) - 4 February 2000	
7	US		Application N° US20000495722 (US09495722) - 1 February 2000 National Search Report US5732216 A (INTERNET ANGLES INC [US]) - 24 March 1998 US5960399 A (GTE INTERNETWORKING INC [US]) - 28 September 1999 US5983221 A (WORDSTREAM INC [US]) - 9 November 1999 Non-patent literature ACM Multimedia, Hemphill et al., 'Speech-Aware Multimedia'. 1996, pp. 74-78 Applicant	

The PCT/ISA/210 model

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US00/02906

A. CLASSIFICATION OF SUBJECT MATTER
 IPC(7) : G10L 15/18
 US CL. : 704/257

According to International Patent Classification (IPC) or to both national classification and IPC:

B. FIELDS SEARCHED
 Minimum documentation searched (classification system followed by classification symbols)
 U.S. : 704/257, 256, 255, 251, 270, 275

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
 WEST, USPT, JPAB, EPAB, DWP, TDBD

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passage	Relevant to claim No.
Y, P	US 5,983,221 A (CHRISTY) 09 November 1999, see Fig. 2.	1-22
Y	HEMPHILL, CHARLES T. et al. Surfing the Web by Voice. ACM Multimedia 95. Pages 1-11.	1-22
Y, P	US 5,960,399 A (BARCLAY et al.) 28 September 1999, see abstract.	1-22
A	US 5,732,216 A (LOGAN et al.) 24 March 1998, see Fig. 1.	1-22

Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:
 "A" document defining the general state of the art which is not considered to be of particular relevance
 "P" earlier document published on or after the international filing date
 "X" document which may have priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
 "Y" document referring to an oral disclosure, use, exhibition or other means
 "Z" document published prior to the international filing date but later than the priority date claimed
 "A" later document published after the international filing date or priority date and not in conflict with the application for cited to establish the principle or theory underlying the invention
 "X" document of particular relevance, the cited invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
 "Y" document of particular relevance, the cited invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combinations being obvious to a person skilled in the art
 "A" document member of the same patent family

Date of the actual completion of the international search: 20 MAY 2000
 Date of mailing of the international search report: 11 JUL 2000

Name and mailing address of the ISA/US
 Commissioner of Patents and Trademarks
 Box PCT
 Washington, D.C. 20231
 Facsimile No. (703) 305-3230

Authorized officer: RICHMOND DORVIL
 Telephone No. (703) 305-3900
Joni Hill

Form PCT/ISA/210 (second sheet) (July 1998)*

Classification of S-M
Fields searched

Documents considered to be relevant

CCD Initial Output

Trilateral - CCD

Number: 09151293 [Search] [Help]

EP20000151293

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#	CC	Cat.	Citation details	Claims
1	EP	X	<p>Application N° EP20000151293 (EP09151293) - 4 February 2000</p> <p>National Search Report</p> <p>PADES - An automatic telephone switchboard and directory information system</p> <p>Authors: Kallner A, Kusber B, Seide R, Tran B-H Publication date: SPEECH COMMUNICATION, 1997:1001 ELSEVIER SCIENCE PUBLISHERS, AMSTERDAM, NL Source info: Vol.22, No.1-2, Page(s):99 - 111</p> <p>Abstract Page 105, column R, paragraph 1 - page 106, column L, paragraph 3 Figure 8</p> <p>National Examination</p> <p>WO9821079 A1 (MICROSOFT CORP [US]) - 22 May 1998</p>	1
2	AT		Application N° AT20000914516T (AT0914516) - 4 February 2000	
3	AU		Application N° AU20000035896D (AU3589600) - 4 February 2000	
4	CA		Application N° CA20002361429 (CA002361429) - 4 February 2000	
5	JP		Application N° JP20000597793T (JP2000597793) - 4 February 2000	
6	US		Application N° US20000495722 (US00495722) - 1 February 2000	
			<p>National Search Report</p> <p>US732210 A (INTERNET ANGLES INC [US]) - 24 March 1998</p> <p>US5960399 A (CITE INTERNETWORKING INC [US]) - 28 September 1999</p> <p>US5982221 A (WORDSTREAM INC [US]) - 9 November 1999</p> <p>Non-patent literature</p> <p>ACM Multimedia, Hemphill et al., "Speech-Aware Multimedia", 1996, pp. 74-78</p> <p>Applicant</p> <p>US4445187 A (BEST ROBERT H) - 24 April 1984</p> <p>US107005 A (INTELLIGENT BUSINESS SYSTEMS [US]) - 23 March 1993</p> <p>US3263083 A (WEST PUBLISHING CO [US]) - 23 November 1983</p> <p>US3269375 A (IBM [US]) - 29 November 1994</p> <p>US5418948 A (WEST PUBLISHING CO [US]) - 23 May 1995</p> <p>US3442780 A (MITSUBISHI ELECTRIC CORP [JP]) - 15 August 1995</p> <p>US3436100 A (IBM [US]) - 26 September 1995</p> <p>US3551899 A (HITACHI LTD [JP]) - 10 September 1996</p>	

Documents considered to be relevant

Simple families: 2 Total family members: 6 H Get all family members

CCD VIEWER

Classifications

EP
 IPC G06F17/28, G10L13/00, G10L13/08, G10L15/00, G10L15/18, G10L15/22
 EC G10L15/22

AT
 IPC G06F17/28, G10L15/18, G10L13/00, G10L13/08, G10L15/00, G10L15/22
 EC G10L15/22

AU
 IPC G06F17/28, G10L13/00, G10L13/08, G10L15/00, G10L15/18, G10L15/22
 EC G10L15/22

CA
 IPC G06F17/28, G10L13/00, G10L13/08, G10L15/00, G10L15/18, G10L15/22
 EC G10L15/22

JP
 IPC G06F17/28, G10L13/00, G10L13/08, G10L15/00, G10L15/18, G10L15/22
 EC G10L15/22

US
 IPC G06F17/28, G10L13/00, G10L13/08, G10L15/00, G10L15/18, G10L15/22
 MC 704/E15.04, 704/257, 704/275
 EC G10L15/22

WO
 IPC G06F17/28, G10L13/00, G10L13/08, G10L15/00, G10L15/18, G10L15/22
 EC G10L15/22

Fields searched

EP
 IPC G10L

Inspector(s)

Common Citation Document (CCD)

Trilateral - CCD

Number:

EP20030746705
EP20060123454

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Timeline

CCD Viewer

#	CC	Cat.	Citation details	Claims
1	EP		Application N° EP20060123454 (EP06123454) - 3 November 2006	
National Search Report				
	X	US2003035726 A1	(TIEMANN PETER, , et al) - 20 February 2003 Page 4, paragraph 44 - page 4, paragraph 45 Figure 4	1- 9
	X	EP0541207 A1	(GEN ELECTRIC [US]) - 12 May 1993 Column 5, line 33 - column 5, line 37 Figure 2, 3	1- 9
	A	US5695321 A	(GEN ELECTRIC [US]) - 9 December 1997 Column 6, line 28 - column 6, line 32 Figure 4 - 6	2
	A	Impingement cooling in a rotating curved square annular duct with crossflow effect from rib-roughened surfaces Authors: SHOU-SHING HSIEH, JUNG-TAI HUANG, HUANG-HSIU TSAI Publication data: INSPEC Abstract		8,9
2	CA		Application N° CA20062567126 (CA002567126) - 3 November 2006	
3	FR		Application N° FR20050053357 (FR0553357) - 7 November	

Inspector: classifications and fields searched

Classifications

EP

IPC **F01D5/18**
EC F01D9/04B, F01D5/18G2C, F01D9/06C

CA

IPC **F01D5/18, F01D25/12**
EC F01D9/04B, F01D5/18G2C, F01D9/06C

FR

IPC **F01D5/18**
EC F01D9/04B, F01D5/18G2C, F01D9/06C

JP

IPC **F01D9/02, F01D1/18**
FI F01D1/18, F01D9/02&102
FTERM 3G002/CA03, 3G002/CA06, 3G002/CA07, 3G002/CB01, 3G002/CB04, 3G002/CB05, 3G002/GA08, 3G002/GB01, 3G202/CA03, 3G202/CA06, 3G202/CA07, 3G202/CB01, 3G202/CB04, 3G202/CB05, 3G202/GA08, 3G202/GB01

EC F01D9/04B, F01D5/18G2C, F01D9/06C

RU

IPC **F01D5/18**
EC F01D9/04B, F01D5/18G2C, F01D9/06C

Simple families: 1 Total family members: 6

Number: EP1612402

Search

examples: EP1612402, US2006000447A1, JP20090214944

EP20040425480

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Enriched Citations for EPO

#	CC	Cat.	Citation details	Claims
1	EP		Application N° EP20040425480 (EP04425480) - 30 June 2004 National Search Report	
	X		DE10345154 A1 (DENSO CORP [JP]) - 22 April 2004 Page 3, paragraph 19 Figure 1	1-3
	X		US4501246 A (BOSCH GMBH ROBERT [DE]) - 26 February 1985 Column 2, line 22 - column 2, line 23 Figure 1	1-5
	X		EP0270720 A1 (RENAULT [FR]) - 15 June 1988 Page 5, line 12 - page 6, line 5 Figure 1, 6	1,4-8
	A		EP0299337 A2 (IVECO FIAT [IT], et al) - 18 January 1989 Figure 1	1-8
	A		DE19714489 C1 (SIEMENS AG [DE]) - 1 October 1998 Figure 1	1-8
2	AT		Application N° AT20040425480T (AT04425480) - 30 June 2004	
3	DE		Application N° DE200460002105T (DE602004002105) - 30 June 2004	
4	ES		Application N° ES20040425480T (ES04425480) - 30 June 2004	
5	JP		Application N° JP20050120087 (JP2005120087) - 18 April 2005	
6	JP		Application N° JP20090214944 (JP2009214944) - 16 September 2009	
			National Examination	
			JP2004011448 A (NIPPON SOKEN, et al) - 15 January 2004	
			JP2004124727 A (DENSO CORP) - 22 April 2004	
			JPH01160164 U	
			JP11230005 A (NIPPON SOKEN, et al) - 24 August 1999	
			JP10299611 A (NIPPON SOKEN) - 10 November 1998	
			JP2001107776 A (NISSAN MOTOR) - 17 April 2001	

Full document: US 4501246 (A)

United States Patent and Trademark Office
Leblanc

[54] FUEL INJECTION PUMP
[75] Inventor: Jean Leblanc, Lyons, France
[73] Assignee: Robert Bosch GmbH, Stuttgart, Fed. Rep. of Germany
[21] Appl. No.: 397,712
[22] Filed: Jul. 13, 1982
[30] Foreign Application Priority Data
Jul. 22, 1981 [DE] Fed. Rep. of Germany 3128975

[51] Int. Cl.³ F02M 39/00
[52] U.S. Cl. 123/449; 123/458; 417/487; 417/519
[58] Field of Search 417/487, 519, 221, 244, 417/253, 462, 505; 123/449, 450, 458, 502, 500, 506

[56] References Cited
U.S. PATENT DOCUMENTS
2,077,259 4/1937 Planiol 123/451
2,356,627 8/1944 Skaredoff 123/450
3,404,668 10/1968 Eheim et al. 123/449
3,598,507 8/1971 Voit et al. 417/505
4,073,275 2/1978 Hofer et al. 123/449
4,378,775 4/1983 Straubel et al. 123/458
4,382,751 5/1983 Potter 123/458 X
4,385,610 5/1983 Leblanc 123/449

FOREIGN PATENT DOCUMENTS
53-80803 7/1978 Japan

Primary Examiner—William L. F.
Assistant Examiner—Paul F. Neils
Attorney, Agent, or Firm—Edwin I.

ABSTRACT
A fuel injection pump is proposed metering during the intake stroke of the fuel injection pump is effected in the cross section of which is electrically controlled switching means of the control of a fuel supply pressure conduit by means of a control communicates with the pump which part of a distributor shaft, is guided rpm. By means of the oblique displacement and the possibility of an longitudinal displacement of the angular position at which injection embodied in an arbitrary manner in switching valve.

5 Claims, 2 Drawing

20.99 x 29.70 cm

1/5 - ABSTRACT
2/5 - DRAWINGS
3/5
4/5 - DESCRIPTION
5/5 - CLAIMS

Page 1/5 - ABSTRACT

Domestic family of citation

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Number: EP1612402

EP20040425480
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Citations only view
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Application	Cat.	Citation details	
US20050095425		US6889656 B1 (BOSCH GMBH ROBERT [DE]) - 10 May 2005	
US20050095425		US6823845 B2 (BOSCH GMBH ROBERT [DE]) - 30 Nov	
US20050095425		US6739317 B2 (BOSCH GMBH ROBERT [DE])	
EP20040425480	X	DE10345154 A1 (DENSO CORP [JP]) Page 3, paragraph 19 Figure 1	1-3
JP20090214944		JP2004124727 A (DENSO CORP) - 22 April 2004	
US20050095425		DE10345154 A1 (DENSO CORP [JP]) - 22 April 2004	
JP20090214944		JP2004011448 A (NIPPON SOKEN, et al) - 15 January 2004	
US20050095425		US6497216 B2 (BOSCH GMBH ROBERT [DE]) - 24 December 2002	
US20050095425		US6439199 B2 (BOSCH REXROTH CORP [US]) - 27 August 2002	
US20050095425		US6311674 B1 (DENSO CORP [US]) - 6 November 2001	
US20050095425		US6253734 B1 (BOSCH GMBH ROBERT [US]) - 3 July 2001	
US20050095425		US6234148 B1 (SIEMENS AG [US]) - 22 May 2001	
JP20090214944		JP2001107776 A (NISSAN MOTOR) - 17 April 2001	
JP20090214944		JP2000130288 A (TOYOTA MOTOR CORP) - 9 May 2000	
JP20090214944		JP11230005 A (NIPPON SOKEN, et al) - 24 August 1999	
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Hochdruck-kraftstoffpumpe für einen verbrennungsmotor

Publication date: 22 April 2004

Inventor(s): WATANABE TOSHIKAZU [JP]

Applicant(s): DENSO CORP [JP]

Classifications:

International: F02M59/44; F02M59/06; F02M59/08; F02M59/20; F02M59/46

European: F02M59/08; F02M59/20B; F02M59/46B

Application number: DE20031045154 20030929

Priority number(s): JP20020286361 20020930

Abstract of DE 10345154 (A1)

Ein Auslassventil 13 hat eine Kegelsitzfläche 14, die in einem Auslasskanal 12 ausgebildet ist, eine Ventilkugel 15, welche den Auslasskanal 12 schliesst, wenn sie auf einen Sitzabschnitt der Sitzfläche 14 aufliegt und eine Feder 16 zum Drängen der Ventilkugel 15 in eine Ventilschliessrichtung. Der Auslasskanal 12 ist mit einer zweiten Kegelfläche 17 stromaufwärts von dem Sitzabschnitt ausgebildet. Die zweite Kegelfläche hat einen Kegelwinkel, der kleiner als der der Sitzfläche 14 ist. Wenn Kraftstoff, der von einer Kraftstoffkammer 8 abgeführt wird, in die Sitzfläche 14 strömt, wird eine Strömungsrichtung des Kraftstoffs nicht abrupt geändert, sondern kontinuierlich verändert. Deshalb ist ein Strömungszustand des Kraftstoffs stromaufwärts von dem Sitzabschnitt verbessert. Folglich kann die Erzeugung von ungleichmässiger Strömung um die Ventilkugel 15 verhindert werden und die Erzeugung von unnormalem Geräusch kann verhindert werden.

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Number: EP1612402

EP20040425480

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CC Cat. Citation details Claims

1	EP	Application N° EP20040425480 (EP040425480) - 30 June 2004	
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X	EP	EP0270720 A1 (RENAULT [FR]) - 15 June 1988 Page 5, line 12 - page 6, line 5 Figure 1, 6	1,4-8
A	EP	EP0299337 A2 (IVECO FIAT [IT], et al) - 18 January 1989 Figure 1	1-8
A	DE	DE19714489 C1 (SIEMENS AG [DE]) - 1 October 1998 Figure 1	1-8
2	AT	Application N° AT20040425480T (AT04425480) - 30 June 2004	
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		National Examination	

Application EP20040425480

Biblio Description Claims Original document

Full document: EP 1612402 A1

5 EP 1 612 402

defined in the annexed claims. For example, it is possible to eliminate the motion-transmission device 26 and actuate the shaft 23 of the high-pressure pump 7 at a rate independent of the speed of the engine shaft 4. Also the solenoid valve 15 for draining the fuel from the accumulator 6 can be eliminated.

[0025] Furthermore, the two pumping elements 18 can be arranged in parallel and actuated in phase opposition by two different cams. Finally, the pump 7 can have a different number of pumping elements, for example three pumping elements actuated by a common cam with a phase offset of 120°.

Claims

1. A high-pressure variable-flow-rate pump for a fuel-injection system of an internal-combustion engine, comprising at least one pumping element (18), which is actuated in reciprocating motion through suction and delivery strokes and is provided with an intake valve (25) in communication with an intake pipe (10), and a delivery valve (30) in communication with a delivery pipe (8); said pump (7) being characterized in that its flow rate is regulated by a regulation device (27) for regulating the fuel supplied to said pumping element (18), said regulation device (27) being arranged on said intake pipe (10) and being designed to be actuated during the suction strokes of said pumping element (18).
2. The high-pressure pump according to Claim 1, in which said intake valves (25) are in communication with a common intake pipe (10), said pump being

US4501246.A (EP20040425480) [also published as]

Biblio Description Claims Original document

Full document: US 4501246 (A)

246

4

shaft and variable opening times of the switching valve 16, it is possible for an arbitrary fuel quantity to come to the point of injection within an arbitrary range of the possible supply stroke of the pump pistons 3. With an appropriately embodied control device, arbitrary injection times and injection durations can be attained in accordance with temperature, load, rpm and other engine parameters.

The foregoing relates to a preferred exemplary embodiment of the invention, it being understood that other embodiments and variants thereof are possible within the spirit and scope of the invention, the latter being defined by the appended claims.

What is claimed and desired to be secured by Letters Patent of the United States is:

1. A fuel injection pump having at least one pump work chamber enclosed in a cylinder by at least one pump piston, which is actuated by cam means in synchronism and constant relation to drive means of said injection pump, said pump work chamber being in continuous communication with a distributor opening in an axially displaceable distributor shaft which is rotated by said drive means in synchronism therewith within a cylinder and is capable of being connected thereby with one of a series of supply lines distributed over the circumference of said cylinder which lead from said cylinder to a fuel injection point, said point being effected in sequence during the supply stroke of said pump piston, further wherein said pump work chamber is in continuous communication with a control groove in a jacket face of said distributor shaft, with control groove arranged to cooperate with a fuel inlet opening which discharges into said cylinder and wherein the rotary and axial position of a part of said control groove that coacts with said fuel inlet opening relative to said drive means is variable by an axial displacement of said distributor shaft characterized in that said fuel inlet opening is

Number: WO1999EP02462

Search

examples: EP1612402, US2006000447A1, JP20090214944

EP20040425480

WO1999EP02462

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#	CC	Cat.	Citation details	Claims
1	WO		Application Nº WO1999EP02462 (WOEP9902462) - 13 April 1999	
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3	AU		Application Nº AU19990041208 (AU4120899) - 13 April 1999	
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Application BR19990009669

Biblio Description Claims Original document

Bibliographic data: BR 9909669 (A)

Processo para identificação de ingredientes quimicos ativos e de ingredientes ativos para inibição da via de biossíntese de 1-desóxi-d-xilulose-5-fosfato

Publication date: 19 December 2000

Inventor(s): HASSAN JOMAA

Applicant(s): JOMAA HASSAN [DE]

Classifications: International: C07K14/00

Application number: BR19990009669 19990413

Priority number(s): DE19981016196 19980414

DE19981025585 19980609

097 19980624

637 19980715

2463 19990413

Abstract of BR 9909669 (A)

Patente de Invenção "PROCESSO PARA IDENTIFICAÇÃO DE INGREDIENTES QUÍMICOS ATIVOS E DE INGREDIENTES ATIVOS PARA INIBIÇÃO DA VIA DE BIOSÍNTESE DE 1-DESÓXI-D-XILULOSE-5-FOSFATO". A invenção refere-se a um processo para a obtenção de ingredientes quimicos ativos que são adequados para o tratamento de doenças infecciosas causadas por parasitas unicelulares ou multicelulares. Com este processo as proteínas que estão envolvidas na via metabólica do 1-desóxi-D-xilulose-5-fosfato ou derivados das mesmas que atuam similarmente são colocados em contato com os ingredientes ativos que terão sua atividade investigada em relação aos parasitas, e os ingredientes ativos que inibem as proteínas ou seu derivados são selecionados. A invenção também refere-se aos ingredientes ativos descobertos para a produção de composições farmacêuticas contra as infecções parasiticas.

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Aktenzeichen DE: 10 2005 050 747.6

Schutzrechtsart: Patent

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	Schutzrechtsart	SART	Patent
	Status	ST	Anhängig/in Kraft
21	Aktenzeichen DE	DAKZ	10 2005 050 747.6
54	Bezeichnung/Titel	TI	Multiplex-Sender für Polymerfaserübertragung und Verfahren zu dessen Herstellung
51	IPC-Hauptklasse	ICM (ICMV)	H04J 14/02 (2006.01)
22	Anmeldetag DE	DAT	22.10.2005
43	Offenlegungstag	OT	26.04.2007
71/73	Anmelder/Inhaber	INH	ESA Patentverwertungsagentur Sachsen-Anhalt GmbH, 39114 Magdeburg, DE; Hochschule Harz (FH), 38855 Wernigerode, DE
72	Erfinder	IN	Ulrich, Prof. Dr. Fischer-Hirchert, 38640 Goslar, DE
74	Vertreter	VTR	Sperling, Fischer & Heyner Patentanwälte, 39108 Magdeburg, DE
10	Veröffentlichte DE-Dokumente	DEPN	DE102005050747A1
	Zustellanschrift		Sperling, Fischer & Heyner Patentanwälte, 39108 Magdeburg, DE
	Fälligkeit	FT FG	31.10.2011 Jahresgebühr für das 7. Jahr
	Zuständige Patentabteilung		55
57	Zusammenfassung	AB	Die Erfindung betrifft einen Multiplex-Sender für Polymerfaserübertragung und ein Verfahren zu dessen Herstellung. \$A Erfindungsgemäß besitzt der Multiplex-Sender einen Grundkörper mit Aussparungen, in denen Wellenleiter der Eingangskanäle sowie Wellenleiter des oder der Ausgangskanäle angeordnet sind, wobei sowohl der Grundkörper mit Aussparungen als auch die Wellenleiter Spritzgussteile sind. \$A Im Verfahren zur Herstellung eines Multiplex-Senders für Polymerfaserübertragung werden in einem ersten Verfahrensschritt der Grundkörper mit den Aussparungen als Spritzgussteil hergestellt, während in einem zweiten Verfahrensschritt die Wellenleiter ebenfalls durch Spritzguss in Aussparungen des Grundkörpers eingebracht werden.
56	Entgegenhaltungen	CT	DE000019716838A1 DE000010323032A1 DE000069030437T2 US000006356692B1 US020050175347A1 US020050069013A1
	Anzahl der Bescheide		2

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2007216620 : Tobacco cartridge particularly for use with narghiles

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2013-05-30	STD GRANT NOT 30-05-2013	CORRO OUT	FILED	83	<input type="checkbox"/>
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