# 505439122 04/22/2019

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

nic Version v1.1 EPAS ID: PAT5485923

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
MITSUHIRO MATSUZAWA	03/14/2019
KAZUKI YOSHIMURA	03/13/2019
EIJI ISHII	03/20/2019
AKIHIRO YAMAZAKI	03/13/2019
TAKAHIRO SAITO	03/13/2019
NOBUAKI KOBAYASHI	03/13/2019

### **RECEIVING PARTY DATA**

Name:	HITACHI AUTOMOTIVE SYSTEMS, LTD.
Street Address:	2520, TAKABA
City:	HITACHINAKA-SHI, IBARAKI
State/Country:	JAPAN

# **PROPERTY NUMBERS Total: 1**

Property Type	Number	
Application Number:	16343902	

### **CORRESPONDENCE DATA**

**Fax Number:** (202)628-8844

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

**Phone:** 202-624-2500

**Email:** edocket@crowell.com, ehadi@crowell.com

Correspondent Name: CROWELL & MORING LLP

Address Line 1: P.O. BOX 14300

Address Line 4: WASHINGTON, D.C. 20044-4300

ATTORNEY DOCKET NUMBER:	109531.PC240US
NAME OF SUBMITTER:	MICHAEL H. JACOBS
SIGNATURE:	/Michael H. Jacobs/
DATE SIGNED:	04/22/2019

**Total Attachments: 5** 

source=PC240US\_Assignment#page1.tif

PATENT REEL: 048958 FRAME: 0257

505439122

source=PC240US\_Assignment#page2.tif
source=PC240US\_Assignment#page3.tif
source=PC240US\_Assignment#page4.tif
source=PC240US\_Assignment#page5.tif

PATENT REEL: 048958 FRAME: 0258

(譲渡証)

As a below named inventor, I hereby declare that:

IN CONSIDERATION of the sum of One Dollar (\$1.00) or the equivalent thereof, and other good and valuable consideration paid to me citizen of Japan by Hitachi Automotive Systems, Ltd., a corporation organized under the laws of Japan, located at 2520, Takaba, Hitachinaka-shi, Ibaraki, Japan, receipt of which is hereby acknowledged I do hereby sell and assign to said Hitachi Automotive Systems, Ltd., its successors and assigns, all my right, title and interest, in and for the United States of America, in and to

#### FUEL INJECTION VALVE

invented by me (if only one is named below) or us (if plural inventors are named below) and described in the application for United States Letters Patent therefor, executed on even date herewith, and all United States Letters Patent which may be granted therefor, and all divisions, continuations and extensions thereof, the said interest being the entire ownership of the said Letters Patent when granted, to be held and enjoyed by said Hitachi Automotive Systems, Ltd., its successors, assigns or other legal representatives, to the full end of term for which said Letters Patent may be granted, as fully and entirely as the same would have been held and enjoyed by me or us if this assignment and sale had not been made;

And I hereby agree to sign and execute any further documents or instruments which may be necessary, lawful, and proper in the prosecution of the above-named application or in the preparation and prosecution of any continuing, continuation-in-part, substitute, divisional, renewal, reviewed or reissue applications or in any amendment, extension, or interference proceedings, or otherwise to secure the title thereto in said assignee;

And I do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to said Hitachi Automotive Systems, Ltd.,

Signed on the date(s) indicated aside signatures:

INVENTOR(S)

(発明者フルネームサイン)

1)	Mitsuhiro MATSUZAWA	Mitsuhiro Matsuzawa	3/14/2019
			·
2)	Kazuki YOSHIMURA		
3)	Eiji ISHII		

> PATENT REEL: 048958 FRAME: 0259

Date Signed

(署名日)

# ASSIGNMENT (譲渡証)

As a below named inventor, I hereby declare that:

IN CONSIDERATION of the sum of One Dollar (\$1.00) or the equivalent thereof, and other good and valuable consideration paid to me citizen of Japan by Hitachi Automotive Systems, Ltd., a corporation organized under the laws of Japan, located at 2520, Takaba, Hitachinaka-shi, Ibaraki, Japan, receipt of which is hereby acknowledged I do hereby sell and assign to said Hitachi Automotive Systems, Ltd., its successors and assigns, all my right, title and interest, in and for the United States of America, in and to

#### FUEL INJECTION VALVE

invented by me (if only one is named below) or us (if plural inventors are named below) and described in the application for United States Letters Patent therefor, executed on even date herewith, and all United States Letters Patent which may be granted therefor, and all divisions, continuations and extensions thereof, the said interest being the entire ownership of the said Letters Patent when granted, to be held and enjoyed by said Hitachi Automotive Systems, Ltd., its successors, assigns or other legal representatives, to the full end of term for which said Letters Patent may be granted, as fully and entirely as the same would have been held and enjoyed by me or us if this assignment and sale had not been made;

And I hereby agree to sign and execute any further documents or instruments which may be necessary, lawful, and proper in the prosecution of the above-named application or in the preparation and prosecution of any continuing, continuation-in-part, substitute, divisional, renewal, reviewed or reissue applications or in any amendment, extension, or interference proceedings, or otherwise to secure the title thereto in said assignee;

And I do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to said Hitachi Automotive Systems, Ltd.,

Signed on the date(s) indicated aside signatures:

INVENTOR(S)

(発明者フルネームサイン)	(署名日)
1) Mitsuhiro MATSUZAWA	
2) <u>Kazuki YOSHIMURA Mazuki Yashim</u>	Mer 3/13/2019
3) <u>Eiji ISHII</u>	
4) Akihiro YAMAZAKI	
5) <u>Takahiro SAITO</u>	
6) Nobuaki KOBAYASHI	
7)	
8)	
9)	
0)	

PATENT REEL: 048958 FRAME: 0260

Date Signed

(譲渡証)

As a below named inventor, I hereby declare that:

IN CONSIDERATION of the sum of One Dollar (\$1.00) or the equivalent thereof, and other good and valuable consideration paid to me citizen of Japan by Hitachi Automotive Systems, Ltd., a corporation organized under the laws of Japan, located at 2520, Takaba, Hitachinaka-shi, Ibaraki, Japan, receipt of which is hereby acknowledged I do hereby sell and assign to said Hitachi Automotive Systems, Ltd., its successors and assigns, all my right, title and interest, in and for the United States of America, in and to

### FUEL INJECTION VALVE

invented by me (if only one is named below) or us (if plural inventors are named below) and described in the application for United States Letters Patent therefor, executed on even date herewith, and all United States Letters Patent which may be granted therefor, and all divisions, continuations and extensions thereof, the said interest being the entire ownership of the said Letters Patent when granted, to be held and enjoyed by said Hitachi Automotive Systems, Ltd., its successors, assigns or other legal representatives, to the full end of term for which said Letters Patent may be granted, as fully and entirely as the same would have been held and enjoyed by me or us if this assignment and sale had not been made;

And I hereby agree to sign and execute any further documents or instruments which may be necessary, lawful, and proper in the prosecution of the above-named application or in the preparation and prosecution of any continuing, continuation-in-part, substitute, divisional, renewal, reviewed or reissue applications or in any amendment, extension, or interference proceedings, or otherwise to secure the title thereto in said assignee;

And I do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to said Hitachi Automotive Systems, Ltd.,

Signed on the date(s) indicated aside signatures:

	「NVENTOR(S) (発明者フルネームサイン)	Date Signed (署名日)
1)	Mitsühiro MATSUZAWA	
2)	Kazuki YOSHIMURA	
3)	Eiji Ishii Eiji Ishii	3/20/2019
4)	Akihiro YAMAZAKI	
5)	Takahiro SAITO	
6)	Nobuaki KOBAYASHI	
7)		
8)		
9)		
10)		

PATENT REEL: 048958 FRAME: 0261

(譲渡証)

As a below named inventor, I hereby declare that:

IN CONSIDERATION of the sum of One Dollar (\$1.00) or the equivalent thereof, and other good and valuable consideration paid to me citizen of Japan by Hitachi Automotive Systems, Ltd., a corporation organized under the laws of Japan, located at 2520, Takaba, Hitachinaka-shi, Ibaraki, Japan, receipt of which is hereby acknowledged I do hereby sell and assign to said Hitachi Automotive Systems, Ltd., its successors and assigns, all my right, title and interest, in and for the United States of America, in and to

#### FUEL INJECTION VALVE

invented by me (if only one is named below) or us (if plural inventors are named below) and described in the application for United States Letters Patent therefor, executed on even date herewith, and all United States Letters Patent which may be granted therefor, and all divisions, continuations and extensions thereof, the said interest being the entire ownership of the said Letters Patent when granted, to be held and enjoyed by said Hitachi Automotive Systems, Ltd., its successors, assigns or other legal representatives, to the full end of term for which said Letters Patent may be granted, as fully and entirely as the same would have been held and enjoyed by me or us if this assignment and sale had not been made;

And I hereby agree to sign and execute any further documents or instruments which may be necessary, lawful, and proper in the prosecution of the above-named application or in the preparation and prosecution of any continuing, continuation-in-part, substitute, divisional, renewal, reviewed or reissue applications or in any amendment, extension, or interference proceedings, or otherwise to secure the title thereto in said assignee;

And I do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to said Hitachi Automotive Systems, Ltd.,

Signed on the date(s) indicated aside signatures:

INVENTOR(S)

	(発明者フルネームサイン)	(署名日)
1)	Mitsuhiro MATSUZAWA	
2)	Kazuki YOSHIMURA	
3)	Eiji ISHII	
4)	Akihiro YAMAZAKI Okihiro Yamazaki	3/13/2019
5)	Akihiro YAMAZAKI Okihiro Yamoyaki  Takahiro SAITO Zakahiro Santo	3/13/2019
6)	Nobuaki KOBAYASHI	
7)		
8)		
9)		
10)		

PATENT REEL: 048958 FRAME: 0262

Data Signad

(譲渡証)

As a below named inventor, I hereby declare that:

IN CONSIDERATION of the sum of One Dollar (\$1.00) or the equivalent thereof, and other good and valuable consideration paid to me citizen of Japan by Hitachi Automotive Systems, Ltd., a corporation organized under the laws of Japan, located at 2520, Takaba, Hitachinaka-shi, Ibaraki, Japan, receipt of which is hereby acknowledged I do hereby sell and assign to said Hitachi Automotive Systems, Ltd., its successors and assigns, all my right, title and interest, in and for the United States of America, in and to

#### FUEL INJECTION VALVE

invented by me (if only one is named below) or us (if plural inventors are named below) and described in the application for United States Letters Patent therefor, executed on even date herewith, and all United States Letters Patent which may be granted therefor, and all divisions, continuations and extensions thereof, the said interest being the entire ownership of the said Letters Patent when granted, to be held and enjoyed by said Hitachi Automotive Systems, Ltd., its successors, assigns or other legal representatives, to the full end of term for which said Letters Patent may be granted, as fully and entirely as the same would have been held and enjoyed by me or us if this assignment and sale had not been made;

And I hereby agree to sign and execute any further documents or instruments which may be necessary, lawful, and proper in the prosecution of the above-named application or in the preparation and prosecution of any continuing, continuation-in-part, substitute, divisional, renewal, reviewed or reissue applications or in any amendment, extension, or interference proceedings, or otherwise to secure the title thereto in said assignee;

And I do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to said Hitachi Automotive Systems, Ltd.,

Signed on the date(s) indicated aside signatures:

INIVENITOR(C)

	(♥□#♥¬↓→ ¬↓ L ( ) )	Date Signed
	(発明者フルネームサイン)	(署名日)
1)	Mitsuhiro MATSUZAWA	
2)	Kazuki YOSHIMURA	
3)	Eiji ISHII	
4)	Akihiro YAMAZAKI	
	Takahiro SAITO	
6)	Nobuski KOBAYASHI Volumbo Kabayashi,	3/13/2019
7)	·	
8)		
9)		
0)		

PATENT REEL: 048958 FRAME: 0263

RECORDED: 04/22/2019