504648968 11/17/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4695689

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
KAITA NAKANO	11/08/2017
HIROYUKI KATO	11/01/2017
KENJI ARIGA	11/08/2017

RECEIVING PARTY DATA

Name:	HITACHI AUTOMOTIVE SYSTEMS, LTD.
Street Address:	2520, TAKABA, HITACHINAKA-SHI
City:	IBARAKI
State/Country:	JAPAN
Postal Code:	312-8503

PROPERTY NUMBERS Total: 1

Property Type	Number		
Application Number:	15575239		

CORRESPONDENCE DATA

Fax Number:

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: 202-672-5300

Email: ipdocketing@foley.com **FOLEY & LARDNER LLP Correspondent Name:** Address Line 1: 3000 K STREET N.W.

Address Line 2: SUITE 600

Address Line 4: WASHINGTON, D.C. 20007-5109

ATTORNEY DOCKET NUMBER: 023484-0586 NAME OF SUBMITTER: MARY JO BOYCE SIGNATURE: /Mary Jo Boyce/ 11/17/2017 **DATE SIGNED:**

Total Attachments: 2

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> **PATENT** REEL: 044164 FRAME: 0617 504648968

U.S. Rights - Sole or Joint

ASSIGNMENT

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each undersigned inventor has sold and assigned, and by these presents hereby sells and assigns, unto

name and
address of
assignee

HITACHI AUTOMOTIVE SYSTEMS, LTD.

2520, Takaba, Hitachinaka-shi, Ibaraki 312-8503 Japan

(hereinafter ASSIGNEE) all right, title and interest for the United States, its territories and possessions in and to his invention relating to

title of invention

VALVE TIMING CONTROL DEVICE FOR INTERNAL COMBUSTION ENGINE

as set forth in his/her United States Patent Application

check one

) executed concurrently herewith

) executed on___

(X) Serial No. <u>PCT/JP2016/063642</u> Filed <u>May 6, 2016</u>

in and to said United States Patent Application including any and all divisions or continuations and Convention applications based in whole or in part on said invention or upon said application, including the right to make applications for Letters Patents throughout the world in respect to the invention and to claim priority under the International Convention for the Protection of Industrial Property, and in and to any and all Letters Patent of any country which may issue on any such application or for said invention, including any and all successors, legal representatives and assigns to the full end of the term or terms for which any and all such Letters Patent may be granted as fully and entirely as would have been held and enjoyed by the undersigned had this Assignment not be made;

Each of the undersigned hereby authorizes and requests the Commissioner of successors or assigns in accordance herewith;

Each of the undersigned warrants and covenants that he/she has the full and

successors or assigns in accordance herewith;

Each of the undersigned warrants and covenants that he/she has the full and unencumbered right to sell and assign the interests herein sold and assigned and that he/she has not executed and will not execute any document or instrument in conflict herewith;

Each of the undersigned further covenants and agrees that at any time upon request of said ASSIGNEE, its successors, legal representatives or assigns he/she will information known to him/her relating to said invention or patent application and that he/she will execute and deliver any papers, make all rightful oaths, testify in any legal proceedings and perform all other lawful acts deemed necessary or desirable by said ASSIGNEE, its application including divisions and continuations thereof and to any and all Letters Patent in said ASSIGNEE, its successors, or assigns or to assist said ASSIGNEE, its successors, legal representatives or assigns or to assist said ASSIGNEE, its successors, legal representatives or assigns or to assist said ASSIGNEE, its successors, legal representatives or assigns in obtaining, reissuing or enforcing Letters Patent of the Each of the undersigned hereby grants the firm of Foley & Lardner LLP the

Each of the undersigned hereby grants the firm of Foley & Lardner LLP the power to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation

names and	Kalta Nakano		
signatures of	Name: Kaita NAKANO		
inventors	Rouis Srias		

late <u> 11/08/201</u> 7			date	
	Name:	Hiroyuki KATO		

_date 11/08/2017

Name:

PATENT **REEL: 044164 FRAME: 0618**

ASSIGNMENT

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each undersigned inventor has sold and assigned, and by these presents hereby sells and assigns, unto

name and address of assignee	HITACHI AUTOMOTIVE SYSTEMS, LTD. 2520, Takaba, Hitachinaka-shi, Ibaraki 312-8503 Japan			
	(hereinafter ASSIGNEE) all right, title and interest for the United States, its territories and possessions in and to his invention relating to			
title of invention	VALVE TIMING CONTROL DEVICE FOR INTERNAL COMBUSTION ENGINE			
	as set forth in his/her United States Patent Application			
check one	() executed concurrently herewith () executed on (X) Serial No. PCT/JP2016/063642 Filed May 6, 2016			

in and to said United States Patent Application including any and all divisions or continuations and Convention applications based in whole or in part on said invention or upon said application, including the right to make applications for Letters Patents throughout the world in respect to the invention and to claim priority under the International Convention for the Protection of Industrial Property, and in and to any and all Letters Patent of any country which may issue on any such application or for said invention, including any and all reissues, reexaminations, or extensions, to be held and enjoyed by said ASSIGNEE, its successors, legal representatives and assigns to the full end of the term or terms for which any and all such Letters Patent may be granted as fully and entirely as would have been held and enjoyed by the undersigned had this Assignment not be made;

Each of the undersigned hereby authorizes and requests the Commissioner of Patents and Trademarks to issue any and all such Letters Patent to said ASSIGNEE, its successors or assigns in accordance herewith;

Each of the undersigned warrants and covenants that he/she has the full and

successors or assigns in accordance herewith;

Each of the undersigned warrants and covenants that he/she has the full and unencumbered right to sell and assign the interests herein sold and assigned and that he/she has not executed and will not execute any document or instrument in conflict herewith;

Each of the undersigned further covenants and agrees that at any time upon request of said ASSIGNEE, its successors, legal representatives or assigns he/she will communicate to said ASSIGNEE, its successors, legal representatives or assigns all information known to him/her relating to said invention or patent application and that he/she will execute and deliver any papers, make all rightful oaths, testify in any legal proceedings and perform all other lawful acts deemed necessary or desirable by said ASSIGNEE, its successors, legal representatives or assigns to perfect title to said invention, to said application including divisions and continuations thereof and to any and all Letters Patent which may be granted therefor or thereon, including reissues, reexaminations, or extensions, in said ASSIGNEE, its successors, or assigns or to assist said ASSIGNEE, its successors, legal representatives or assigns in obtaining, reissuing or enforcing Letters Patent of the United States for said invention;

Each of the undersigned hereby grants the firm of Folev & Lardner LLP the

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names and			date		H. Keato	date 11/01/2017
signatures of inventors	Name:	Kaita NAKANO		Name:	Hiroyuki KATO	
	-		_date			date
	Name:	Kenji ARIGA		Name:		

PATENT REEL: 044164 FRAME: 0619

RECORDED: 11/17/2017