3/20/09			
Form PTO-1595 (Rev. 07/05) OMB No. 0651-0027 (exp. 6/30/2008)	03-23-	2009	U.S. DEPARTMENT OF COMMERCE  United States Patent and Trademark Office
			ET
To the Director of the U.S. Patent a.	103553	3435	documents or the new address(es) below.
1. Name of conveying party(ies)		2. Name and a	ddress of receiving party(ies)
DICKINSON, Hugh Thomas LAFFERTY, Clinton Lane CORE, Rayvonn Donnell MILLER, William Robert		Name: Volvo Tru Internal Addres	ucks North America, Inc.
Additional name(s) of conveying party(ies) attac	:hed? ☐ Yes 🗸 No		
3. Nature of conveyance/Execution Date(s):		Street Address	7900 National Service Road
Execution Date(s) March 5, 2009, March 1	12, 2009		
Assignment Me	erger		
Security Agreement Cr	nange of Name	City: <u>Greensboro</u>	
Joint Research Agreement		State: North Caro	lina
Government Interest Assignment		Country: ∪s	<b>Zip</b> :27409
Executive Order 9424, Confirmato	ry License	Country. 03	Zip. <u>27-03</u>
Other		Additional name(	s) & address(es) attached? 🔲 Yes 🗹 No
12/310,778	Additional numbers at	tached? Yes	No20
5. Name and address to whom corrections of the concerning document should be made and the concerning document should be made as a second concerning the concerning document should be made as a second concerning the co	•	6. Total numbe involved:	er of applications and patents
Name: Volvo Corporate Patents		7 Total fee (37	7 CFR 1.21(h) & 3.41) \$ 40.00
Internal Address: Mail Stop AP1-3/41			to be charged by credit card
			to be charged to deposit account
Street Address: 7825 National Service Road	d	Enclosed	ired (government interest not affecting title)
City: Greensboro		8. Payment In	
State: North Carolina Zip: 27	409	a. Credit Ca	rd Last 4 Numbers 1113 Expiration Date 09/2009
Phone Number: 336-393-2270		h Donosit A	Account Number
Fax Number: 336-393-3350		· '	03/20/2009 MJAMA1 00000018 12310778
Email Address: martin.farrell@volvo.com		Authorize	ed User Name 61 FC:8821 48.88
9. Signature: Martu Fu	uell_		March 18, 2009 Date
	Signature	-	Fatal autobas of pages including cover
Martin Fa Name of Pers			sheet, attachments, and documents:

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to: Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

PATENT REEL: 022438 FRAME: 0005

## ASSIGNMENT

THIS ASSIGNMENT, by <u>Hugh Thomas DICKINSON</u>; <u>Clinton Lane LAFFERTY</u>; <u>Rayvonn Donnell CORE and William Robert MILLER</u> (hereinafter referred to collectively as the Assignor), witnesseth:

WHEREAS, said Assignor has invented certain new and useful improvements in a: **EXHAUST DIFFUSER FOR A TRUCK**, set forth in an application for Letters Patent of the United States corresponding to PCT International Application Serial No. PCT/US2006/048956 filed herewith claiming priority from United States Provisional application number 60/842,842 filed September 7, 2006.

WHEREAS, <u>Volvo Trucks North America</u>, <u>Inc.</u> a corporation duly organized under and pursuant to the laws of Delaware, and having a principal place of business at: <u>7900 National Service Road</u>, <u>Greensboro</u>, <u>North Carolina 27409</u>, (hereinafter referred to as the Assignee) is desirous of acquiring the entire right, title and interest in to and under the said invention and the said application;

NOW, THEREFORE, in consideration of one Dollar (\$1.00 USD) and other good and sufficient considerations, the receipt of which is hereby acknowledged, said assignors has sold, assigned, transferred and set over, and by these presents does sell, assign, transfer and set over, unto said assignee, its successors, legal representatives and assigns, assignor's interest in the entire right, title and interest in and to the above-mentioned inventions, application for Letters Patent, and any and all Letters Patent or Patents in the United States of America and all foreign countries which may be granted therefor and thereon, and in and to any and all divisions, continuations, and continuations-in-part of said application, or reissues or extensions of said Letters Patent or Patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by said assignee, for its own use and behoof and the use and behoof of its successors, legal representatives and assigns, to the full end of the term or terms for which Letters Patent or Patents may be granted, as fully and entirely as the same would have been held and enjoyed by the assignor, had this sale and assignment not been made.

AND for the same consideration, said assignor hereby covenants and agrees to and with said assignee, its successors, legal representatives and assigns, that, at the time of execution and delivery of these presents, said assignor is the lawful owners of the entire right, title and interest in and to said invention and the application for Letters Patent above mentioned, and that the same is unencumbered and that said assignor has good and full right and lawful authority to sell and convey the same in the manner herein set forth.

AND for the same consideration, said assignor hereby covenants and agrees to and with said assignee, its successors, legal representatives and assigns, that said assignor will, whenever counsel of said assignee, or the counsel of its successors, legal representatives and assigns, shall advise that any proceeding in connection with said inventions, or said application for Letters Patent, or any proceeding in connection with Letters Patent for said inventions in any country, including interference proceedings, is lawful and desirable, or that any division, continuation or continuation-in-part of any application for Letters Patent, or any reissue or extension of any Letters Patent, to be obtained thereon, is lawful and desirable, sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done for the procurement, maintenance, enforcement and defense of Letters Patent for said inventions, without charge to said assignee, its successors, legal representatives and assigns, but at the cost and expense of said assignee, its successors, legal representatives and assigns.

(Date) 03/05/09.	(Signature) Hugh Thomas DICKINSON
(Date)	(Signature) Clinton Lane LAFFERTY
(Date) $3/5/\cancel{5}$ 9	(Signature) Karpu Cornell CORE
(Date)	(Signature) William Robert MILLER

PATENT REEL: 022438 FRAME: 0006

## **ASSIGNMENT**

THIS ASSIGNMENT, by <u>Hugh Thomas DICKINSON</u>; <u>Clinton Lane LAFFERTY</u>; <u>Rayvonn Donnell CORE and William Robert MILLER</u> (hereinafter referred to collectively as the Assignor), witnesseth:

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NOW, THEREFORE, in consideration of one Dollar (\$1.00 USD) and other good and sufficient considerations, the receipt of which is hereby acknowledged, said assignors has sold, assigned, transferred and set over, and by these presents does sell, assign, transfer and set over, unto said assignee, its successors, legal representatives and assigns, assignor's interest in the entire right, title and interest in and to the above-mentioned inventions, application for Letters Patent, and any and all Letters Patent or Patents in the United States of America and all foreign countries which may be granted therefor and thereon, and in and to any and all divisions, continuations, and continuations-in-part of said application, or reissues or extensions of said Letters Patent or Patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by said assignee, for its own use and behoof and the use and behoof of its successors, legal representatives and assigns, to the full end of the term or terms for which Letters Patent or Patents may be granted, as fully and entirely as the same would have been held and enjoyed by the assignor, had this sale and assignment not been made.

AND for the same consideration, said assignor hereby covenants and agrees to and with said assignee, its successors, legal representatives and assigns, that, at the time of execution and delivery of these presents, said assignor is the lawful owners of the entire right, title and interest in and to said invention and the application for Letters Patent above mentioned, and that the same is unencumbered and that said assignor has good and full right and lawful authority to sell and convey the same in the manner herein set forth.

AND for the same consideration, said assignor hereby covenants and agrees to and with said assignee, its successors, legal representatives and assigns, that said assignor will, whenever counsel of said assignee, or the counsel of its successors, legal representatives and assigns, shall advise that any proceeding in connection with said inventions, or said application for Letters Patent, or any proceeding in connection with Letters Patent for said inventions in any country, including interference proceedings, is lawful and desirable, or that any division, continuation or continuation-in-part of any application for Letters Patent, or any reissue or extension of any Letters Patent, to be obtained thereon, is lawful and desirable, sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done for the procurement, maintenance, enforcement and defense of Letters Patent for said inventions, without charge to said assignee, its successors, legal representatives and assigns, but at the cost and expense of said assignee, its successors, legal representatives and assigns.

(Date)	(Signature)  Hugh Thomas DICKINSON .
(Date) 63-05-2009	(Signature) Hugh Thomas DICKINSON  (Signature) Clinton Lane LAFFERTY
(Date)	(Signature)  Rayvonn Donnell CORE
(Date)	(Signature) William Robert MILLER

PATENT REEL: 022438 FRAME: 0007

## ASSIGNMENT

THIS ASSIGNMENT, by <u>Hugh Thomas DICKINSON</u>; <u>Clinton Lane LAFFERTY</u>; <u>Rayvonn Donnell CORE and William Robert MILLER</u> (hereinafter referred to collectively as the Assignor), witnesseth:

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(Date)	(Signature) Hugh Thomas DICKINSON
(Date)	(Signature) Clinton Lane LAFFERTY
(Date)	(Signature)  Rayvonn Donnell CORE
(Date) 3/12/2009	(Signature) William Robert MILLER

PATENT
RECORDED: 03/20/2009 | REEL: 022438 FRAME: 0008