

PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT												
NATURE OF CONVEYANCE:	ASSIGNMENT												
CONVEYING PARTY DATA													
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Daniel G. Brennan</td> <td>12/11/2012</td> </tr> <tr> <td>Gregory P. Matthews</td> <td>12/11/2012</td> </tr> <tr> <td>Layne K. Wiggins</td> <td>12/11/2012</td> </tr> </tbody> </table>		Name	Execution Date	Daniel G. Brennan	12/11/2012	Gregory P. Matthews	12/11/2012	Layne K. Wiggins	12/11/2012				
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RECEIVING PARTY DATA													
<table border="1"> <tr> <td>Name:</td> <td>GM Global Technology Operations LLC</td> </tr> <tr> <td>Street Address:</td> <td>P.O. Box 300</td> </tr> <tr> <td>Internal Address:</td> <td>Mail Code 482-C23-B21</td> </tr> <tr> <td>City:</td> <td>Detroit</td> </tr> <tr> <td>State/Country:</td> <td>MICHIGAN</td> </tr> <tr> <td>Postal Code:</td> <td>48265-3000</td> </tr> </table>		Name:	GM Global Technology Operations LLC	Street Address:	P.O. Box 300	Internal Address:	Mail Code 482-C23-B21	City:	Detroit	State/Country:	MICHIGAN	Postal Code:	48265-3000
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PROPERTY NUMBERS Total: 1													
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Application Number:	13798540												
CORRESPONDENCE DATA													
Fax Number: 2486410270 <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i> Phone: 248-641-1600 Email: cburns@hdp.com Correspondent Name: Harness, Dickey & Pierce, P.L.C. Address Line 1: 5445 Corporate Drive Address Line 2: Suite 200 Address Line 4: Troy, MICHIGAN 48098													
ATTORNEY DOCKET NUMBER:	P022623-PTUS-CD												
NAME OF SUBMITTER:	Carla M. Burns												
Signature:	/Carla M. Burns/												
Date:	05/15/2013												
Total Attachments: 1 source=ASSIGNMENT_P022623#page1.tif													

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PATENT

ASSIGNMENT

Pursuant to an agreement with my employer, I formally assign to GM GLOBAL TECHNOLOGY OPERATIONS LLC, the entire right, title and interest, in all countries and application types, in the improvements set forth in the United States patent application P022623-PTUS-CD entitled

VOLUMETRIC EFFICIENCY DETERMINATION SYSTEMS AND METHODS

for which I executed a declaration. If the patent application has been filed, I authorize any practitioner associated with Customer No. 74175 to insert the application number and filing date of said application here in parentheses (13/798,540 filed March 13, 2013) when known.

If the patent application has been filed provisionally, the application number and filing date of said provisional application(s) assigned herein are as follows:

US Provisional Serial No	Filed
61/698836	10-SEP-2012

Inventor's signature	<u>Daniel G. Brennan</u>	Date	<u>12/11/2012</u>
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Full name : DANIEL G. BRENNAN

Residence : BRIGHTON, MICHIGAN

Inventor's signature	<u>Gregory P. Matthews</u>	Date	<u>Dec 11, 2012</u>
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Full name : GREGORY P. MATTHEWS

Residence : WEST BLOOMFIELD, MICHIGAN

Inventor's signature	<u>Layne K. Wiggins</u>	Date	<u>12/11/2012</u>
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Full name : LAYNE K. WIGGINS

Residence : DEXTER, MICHIGAN