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PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
BENJAMIN C. GROEN	05/29/2020
CAMERON P. SMITH	05/29/2020
KYLE HOLIHAN	05/29/2020
MICHAEL H. CARLSON	05/29/2020
NATHAN J. ENGLISH	05/29/2020
LAWRENCE P. ZIEHR	05/29/2020

RECEIVING PARTY DATA

Name:	GM GLOBAL TECHNOLOGY OPERATIONS LLC
Street Address:	P.O. BOX 300
Internal Address:	M/C 482-C22-A68
City:	DETROIT
State/Country:	MICHIGAN
Postal Code:	48265-3000

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16890146

CORRESPONDENCE DATA

Fax Number: (860)286-0115

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: 860-286-2929

Email: usptopatentmail@cantorcolburn.com

Correspondent Name: CANTOR COLBURN LLP-GENERAL MOTORS

Address Line 1:20 CHURCH STREET, 22ND FLOORAddress Line 4:HARTFORD, CONNECTICUT 06103

ATTORNEY DOCKET NUMBER:	P051905-US-NP
NAME OF SUBMITTER:	USHA MUNUKUTLA-PARKER
SIGNATURE:	/Usha Munukutla-Parker/
DATE SIGNED:	06/02/2020

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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 P051905-US-NP entitled

VEHICLE THERMAL MANGEMENT

practitioner associate	a declaration. If the patent application has d with Customer No. 80748 to insert the agree in parentheses (16/890,146 file)	pplication	number and filing date
Inventor's signature	Bersamy Swen	Date_	5/29/2020
Full name:	BENJAMIN C. GROEN		
Residence:	TROY, MICHIGAN		
Inventor's signature		Date_	- And Andrews Company
Full name:	CAMERON P. SMITH		
Residence:	MILFORD, MICHIGAN		
Inventor's signature		Date_	Andrew Province (1)
Full name :	KYLE HOLIHAN		
Residence:	SOUTH LYON, MICHIGAN		
Inventor's signature		Date_	
Full name:	MICHAEL H. CARLSON		
Residence :	FARMINGTON HILLS, MICHIGAN		

Inventor's signature		Date
Full name:	NATHAN J. ENGLISH	
Residence:	AUBURN HILLS, MICHIGAN	
Inventor's signature		Date
Full name :	LAWRENCE P. ZIEHR	
Residence:	CLARKSTON, MICHIGAN	

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for which I executed a declaration. If the patent application has been filed, I authorize any practitioner associated with Customer No. 80748 to insert the application number and filing date of said application here in parentheses (16/890,146 filed June 2, 2020) when known.

Inventor's signature		Date
Full name:	BENJAMIN C. GROEN	e e e e e e e e e e e e e e e e e e e
Residence:	TROY, MICHIGAN	8 · *
Inventor's signature	Cand Suce	Date 05/29/20
Full name:	CAMERON P. SMITH	
Residence:	MILFORD, MICHIGAN	V W
Inventor's signature		Date
Full name:	KYLE HOLIHAN	
Residence:	SOUTH LYON, MICHIGAN	
Inventor's signature		Date
Full name:	MICHAEL H. CARLSON	i.
Recidence :	FARMINGTON HILLS, MICHIGAN	d d

Inventor's signature		Date
Full name:	NATHAN J. ENGLISH	
Residence:	AUBURN HILLS, MICHIGAN	
Inventor's signature		Date
Full name :	LAWRENCE P. ZIEHR	
Residence:	CLARKSTON, MICHIGAN	

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Inventor's signature		Date
Full name:	BENJAMIN C. GROEN	
Residence :	TROY, MICHIGAN	
Inventor's signature		Date
Full name	CAMERON P. SMITH	
Residence	MILFORD, MICHIGAN	
Inventor's signature	4 NL	Date 5/29/2020
Full name:	KYLE HOLIHAN	
Residence:	SOUTH LYON, MICHIGAN	
Inventor's signature		Date
Full name:	MICHAEL H. CARLSON	
Deudens	TARMINICTON UNITE MICUICIANI	

PATENT

REEL: 052809 FRAME: 0489

Inventor's signature		Date
Full name :	NATHAN J. ENGLISH	
Residence:	AUBURN HILLS, MICHIGAN	
Inventor's signature		Date
Full name:	LAWRENCE P. ZIEHR	
Residence:	CLARKSTON, MICHIGAN	

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Inventor's signature		Date
Full name:	BENJAMIN C. GROEN	
Residence:	TROY, MICHIGAN	
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Residence:	MILFORD, MICHIGAN	
Inventor's signature		Date
Full name:	KYLE HOLIHAN	
Residence:	SOUTH LYON, MICHIGAN	ş
Inventor's signature	1/Win & Cu	DateS/29/2020
Full name:	MICHAEL H. CARLSON	
Pacidonna .	EARMINGTON HILLS MICHIGAN	

Inventor's signature		Date
Full name:	NATHAN J. ENGLISH	
Residence:	AUBURN HILLS, MICHIGAN	
Inventor's signature		Date
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Inventor's signature	WE MERTING TO	Date	
Full name:	BENJAMIN C. GROEN		
Residence:	TROY, MICHIGAN		
Inventor's signature		Date	
Full name:	CAMERON P. SMITH		
Residence:	MILFORD, MICHIGAN		
Inventor's signature	A. As all to it is in large on the second of	Date	
Full name:	KYLE HOLIHAN		
Residence:	SOUTH LYON, MICHIGAN		
Inventor's signature		Date	
Full name:	MICHAEL H. CARLSON		
Residence:	FARMINGTON HILLS, MICHIGAN		

Inventor's signature	Jan Soften	Date <u>5/29/20</u>
Full name:	NATHAN J. ENGLISH	
Residence:	AUBURN HILLS, MICHIGAN	
Inventor's signature		Date
Full name:	LAWRENCE P. ZIEHR	
Residence:	CLARKSTON, MICHIGAN	

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Residence:	SOUTH LYON, MICHIGAN	
Inventor's signature		Date
Full name:	MICHAEL H. CARLSON	
Residence:	FARMINGTON HILLS, MICHIGAN	

Inventor's signature		Date
Full name :	NATHAN J. ENGLISH	
Residence:	AUBURN HILLS, MICHIGAN	
Inventor's signature ; Full name :	LAWRENCE P. ZIEHR	Date 5/29/2020
Residence:	CLARKSTON, MICHIGAN	

PATENT REEL: 052809 FRAME: 0496

RECORDED: 06/02/2020