506272080 09/25/2020

PATENT ASSIGNMENT COVER SHEET

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| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|------------------|----------------|
| BRENT S. GAGAS | 09/23/2020 |
| BRIAN A. WELCHKO | 09/23/2020 |
| KERRIE M. SPAVEN | 09/23/2020 |

RECEIVING PARTY DATA

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| State/Country: | MICHIGAN |
| Postal Code: | 48265-3000 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 17032449 |

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| ATTORNEY DOCKET NUMBER: | P052611-US-NP |
|-------------------------|-----------------|
| NAME OF SUBMITTER: | DONNA BERKLEY |
| SIGNATURE: | /Donna Berkley/ |
| DATE SIGNED: | 09/25/2020 |

Total Attachments: 3

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> **PATENT** REEL: 053887 FRAME: 0684 506272080

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 in all application types, in the improvements set forth in the United States patent application for P052611-US-NP, which is entitled:

ENHANCED ELECTRIC DRIVE VEHICLE OPERATION VIA PULSE WIDTH MODULATION (PWM) TYPE AND FREQUENCY CONTROL

and for which I executed a declaration. If the patent application has been filed, I authorize any practitioner associated with Customer No. 72823 to insert the application number and filing date of said application here in parentheses (17/032,449 filed 25-5EPT-2020) when known.

| Inventor's signature: | Putley | Date 9-23-2020 |
|-----------------------|---------------------------|----------------|
| Full name: | Brent S. Gagas | |
| Residence: | FERNDALE, MICHIGAN | ÷ |
| Inventor's signature: | • | Date |
| Full name: | Brian A. Welchko | |
| Residence: | OAKLAND, MICHIGAN | |
| Inventor's signature: | | Date |
| Full name: | Kerrie M. Spaven | • |
| Residence: | ROCHESTER HILLS, MICHIGAN | |

PATENT REEL: 053887 FRAME: 0685

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 in all application types, in the improvements set forth in the United States patent application for P052611-US-NP, which is entitled:

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| Inventor's signature: | | Date |
|-----------------------|---------------------------|----------------|
| Full name: | Brent S. Gagas | |
| Residence: | FERNDALE, MICHIGAN | |
| Inventor's signature: | kis A. Wells | Date 9/23/2020 |
| Full name: | Brian A. Welchko | |
| Residence: | OAKLAND, MICHIGAN | |
| | | |
| Inventor's signature: | | Date |
| Full name: | Kerrie M. Spaven | |
| Residence: | ROCHESTER HILLS, MICHIGAN | |

PATENT REEL: 053887 FRAME: 0686

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 in all application types, in the improvements set forth in the United States patent application for P052611-US-NP, which is entitled:

ENHANCED ELECTRIC DRIVE VEHICLE OPERATION VIA PULSE WIDTH MODULATION (PWM) TYPE AND FREQUENCY CONTROL

and for which I executed a declaration. If the patent application has been filed, I authorize any practitioner associated with Customer No. 72823 to insert the application number and filing date of said application here in parentheses (17/032, 449 filed 25-SEPT-2020) when known.

| Inventor's signature: | | Date |
|-----------------------|--------------------------|---|
| Full name: | Brent S. Gagas | |
| Residence: | FERNDALE, MICHIGAN | e de la companya de |
| Inventor's signature: | | Date |
| Full name: | Brian A. Welchko | |
| Residence: | OAKLAND, MICHIGAN | |
| Inventor's signature: | Kerrie Sponon | Date 9/23/2020 |
| Full name: | Kerrie M. Spaven | • |
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PATENT

REEL: 053887 FRAME: 0687