503053856 11/10/2014

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3100456

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

CONVEYING PARTY DATA

| Name | Execution Date |
|--------------------|----------------|
| CHRIS PHELPS | 10/23/2014 |
| JEFFREY L. KINCAID | 11/03/2014 |
| JOHN C. HIBBLER | 10/27/2014 |
| JAMES P. DOWNS | 11/03/2014 |

RECEIVING PARTY DATA

| Name: | AMERICAN AXLE & MANUFACTURING, INC. |
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| Street Address: | ONE DAUCH DRIVE |
| City: | DETROIT |
| State/Country: | MICHIGAN |
| Postal Code: | 48211 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 14460597 |

CORRESPONDENCE DATA

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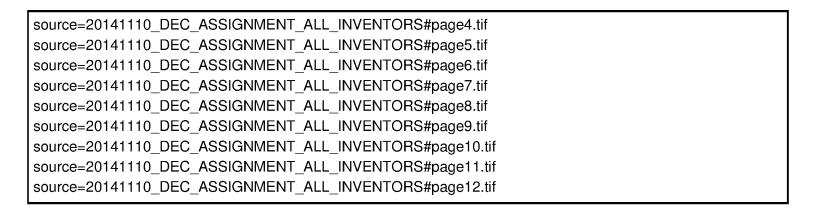
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|-------------------------|-----------------------|
| NAME OF SUBMITTER: | MICHAEL D. ZALOBSKY |
| SIGNATURE: | /Michael D. Zalobsky/ |
| DATE SIGNED: | 11/10/2014 |

Total Attachments: 12

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PATENT 503053856 REEL: 034132 FRAME: 0890



The undersigned acknowledges that this document is being used both as an assignment of the invention and as the declaration (37 CFR 1.63) for a Utility or Design Application entitled:

OPTIMIZED OUTER CLUTCH HOUSING FOR REDUCED SPIN LOSS, IMPROVED OIL FLOW AND IMPROVED CLUTCH DURABILITY

| As a below named inventor, I hereby declare that: | | |
|---|---|--|
| This declaration is | directed to (check one): | |
| | The attached application, or | |
| \boxtimes | United States application or PCT international application number | |
| | 14/460,597 filed on August 15, 2014. | |

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the above-identified application.

I hereby acknowledge that any willful false statement made in this Declaration and Assignment is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

I hereby state that I have reviewed and understand the contents of the above identified application, including the claims.

I acknowledge that I am aware of the duty to disclose information which is material to patentability as defined in 37 CFR § 1.56.

For good and valuable consideration, the receipt and adequacy whereof I hereby acknowledge, I hereby confirm any prior assignment to American Axle & Manufacturing, Inc., One Dauch Drive, Detroit, Michigan 48211-1198 (hereinafter "Assignee"), and to the extent that I have not already done so, agree to assign, and hereby do, sell, assign

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I hereby covenant and agree to execute all instruments or documents required or requested for the making and prosecution of any applications of any type for patent, utility model, or other similar rights, and for copyright, in the United States and in all foreign countries including, but not limited to, any provisional, continuation, continuation-in-part, divisional, renewal or substitute thereof, any derivation proceedings relating thereto, and as to Letters Patent any supplemental examination, derivation proceeding, opposition, post grant review, reissue, re-examination, inter partes review, or extension thereof, and for litigation regarding, or for the purpose of protecting title and to the said invention, the United States application for patent, or Letters Patent therefor, and to testify in support thereof, for the benefit of Assignee without further or other compensation than that above set forth.

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Chris Phelps

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| document. | |
| Affry L. Mind | |
| Jeffrey L. Kincaid | Witness |
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Page 3 of 3 **REEL: 034132 FRAME: 0897**

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James P. Downs

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