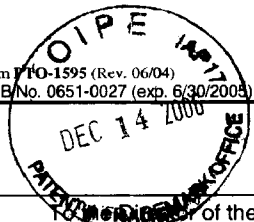


12-15-06

12-21-2006

SHEET

HDP Docket No. 1316N-001700
Express Mail Label No.



103352268

Attached documents or the new address(es) below.

1. Name of conveying parties & Execution Dates:

Van T. Walworth	November 10, 2006
David B. Hook	November 15, 2006
Craig Whitaker	November 7, 2006
Joseph C. Bacarella	November 7, 2006
George Moser	November 20, 2006

2. Name and address of receiving party(ies)

Name: **Tenneco Automotive Operating Company Inc.**

Address: **500 North Field Drive**
Lake Forest, Illinois 60045

Additional name of conveying party attached? Yes No

3. Nature of conveyance:

- Assignment Merger
- Security Agreement Change of Name
- Government Interest Assignment
- Executive Order 9424, Confirmatory License
- Other _____

Additional Name(s) & address(es) attached? Yes No

4. Application number(s) or patent number(s):

This document is being filed together with a new application.

A. Patent Application No.(s)
11/494,272

B. Patent No.(s)

Additional numbers attached? Yes No

5. Name and address of party to whom correspondence concerning this document should be mailed:

Name: H. Keith Miller, Esq.

Internal Address: Harness, Dickey & Pierce, P.L.C.

Street Address: P.O. Box 828

City: Bloomfield Hills

State: MI Zip: 48303

Phone Number : 248-641-1600

Fax Number: 248-641-0270

Email Address: _____

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00

- Authorized to be charged by credit card
- Authorized to be charged to deposit account
- Enclosed
- None required (government interest not affecting title)

8. Payment Information

a. Credit Card Last 4 Numbers _____
Expiration Date _____

b. Deposit Account Number 08-0750

Authorized User Name H. Keith Miller, Esq.

9. Signature :

December 14, 2006

Signature

Date

Total number of pages including cover sheet, attachments, and documents **11**

H. Keith Miller, Esq. Reg. No. 22,484

Name of Person Signing

Documents to be recorded (including cover sheet) should be faxed to (703) 306-5995, or mailed to:
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

12/20/2006 DBYRNE 0000049-1494272
01 FC: 0021

EV 757 778 542 US
PATENT
REEL: 018714 FRAME: 0926

ASSIGNMENT

Atty. Docket No. 1316N-001704

WHEREAS, the undersigned, hereinafter referred to collectively as Assignor, has invented:

Relative Axial Translation Prevention System

for which Assignor is about to make or has made United States or International application for patent

- (a) executed on even date preparatory to filing (each inventor should sign this Assignment on the same day as he/she signs the Declaration and Power of Attorney);
- (b) executed on _____, _____, _____; or
- (c) filed on July 27, 2006, and assigned Serial No. 11/494,272 or PCT International Application No. _____;
- (d) U.S. Patent No. _____, issued _____; and

WHEREAS, Tenneco Automotive Operating Company Inc., a Delaware corporation having a place of business at 500 North Field Drive, Lake Forest, Illinois 60045, hereinafter referred to as Assignee, is desirous of acquiring an interest therein:

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy whereof is hereby acknowledged, Assignor by these presents does sell, assign and transfer unto Assignee and its successors in interest, the full and exclusive right, title and interest in the United States of America and all foreign countries, including the right to claim priority under the laws of the United States, the Paris Convention, and any foreign countries, to the said invention as described in the aforesaid application, said application for patent and all Letters Patent therefor to be held and enjoyed by Assignee to the full end of the term for which said Letters Patent are granted and any extensions thereof as fully and entirely as the same would have been held by Assignor had this assignment and sale not been made, and the right to recover for past infringements of, or liabilities for, any of the rights relating to any of said applications or patents resulting therefrom;

Assignor hereby covenants and agrees to execute all instruments or documents required or requested for the making and prosecution of any applications of any type for patent 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, and as to letters patent any reissue, re-examination, 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;

Assignor hereby covenants that no assignment, sale or agreement or encumbrance has been or will be entered into which would conflict with this Assignment; and

Assignor hereby requests the Commissioner of Patents and Trademarks to issue said Letters Patent of the United States of America to Assignee, and requests that any official of any country or countries foreign to the United States, whose duty it is to issue or grant patents and applications as aforesaid, to issue said Letters Patent, Utility Model Registration or Inventor's Certificate to Assignee.

Assignor hereby authorizes and requests my attorney to insert here in parentheses (Application No. _____, filed _____) the filing date and application number of said application when known.

ASSIGNMENT

Van T. Walworth

Van T. Walworth

NOVEMBER 10, 2006

Date

David B. Hook

Date

Craig Whitaker

Date

Joseph C. Bacarella

Date

George Moser

Date

ASSIGNMENT

Atty. Docket No. 1316N-001704

WHEREAS, the undersigned, hereinafter referred to collectively as Assignor, has invented:

Relative Axial Translation Prevention System

for which Assignor is about to make or has made United States or International application for patent

- (a) executed on even date preparatory to filing (each inventor should sign this Assignment on the same day as he/she signs the Declaration and Power of Attorney);
- (b) executed on _____, _____, _____; or
- (c) filed on July 27, 2006, and assigned Serial No. 11/494,272 or PCT International Application No. _____;
- (d) U.S. Patent No. _____, issued _____; and

WHEREAS, Tenneco Automotive Operating Company Inc., a Delaware corporation having a place of business at 500 North Field Drive, Lake Forest, Illinois 60045, hereinafter referred to as Assignee, is desirous of acquiring an interest therein:

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy whereof is hereby acknowledged, Assignor by these presents does sell, assign and transfer unto Assignee and its successors in interest, the full and exclusive right, title and interest in the United States of America and all foreign countries, including the right to claim priority under the laws of the United States, the Paris Convention, and any foreign countries, to the said invention as described in the aforesaid application, said application for patent and all Letters Patent therefor to be held and enjoyed by Assignee to the full end of the term for which said Letters Patent are granted and any extensions thereof as fully and entirely as the same would have been held by Assignor had this assignment and sale not been made, and the right to recover for past infringements of, or liabilities for, any of the rights relating to any of said applications or patents resulting therefrom;

Assignor hereby covenants and agrees to execute all instruments or documents required or requested for the making and prosecution of any applications of any type for patent 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, and as to letters patent any reissue, re-examination, 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;

Assignor hereby covenants that no assignment, sale or agreement or encumbrance has been or will be entered into which would conflict with this Assignment; and

Assignor hereby requests the Commissioner of Patents and Trademarks to issue said Letters Patent of the United States of America to Assignee, and requests that any official of any country or countries foreign to the United States, whose duty it is to issue or grant patents and applications as aforesaid, to issue said Letters Patent, Utility Model Registration or Inventor's Certificate to Assignee.

Assignor hereby authorizes and requests my attorney to insert here in parentheses (Application No. _____, filed _____) the filing date and application number of said application when known.

ASSIGNMENT

Van T. Walworth

Date

David B. Hook

David B. Hook

Nov 15, 2006

Date

Craig Whitaker

Date

Joseph C. Bacarella

Date

George Moser

Date

ASSIGNMENT

Atty. Docket No. 1316N-001704

WHEREAS, the undersigned, hereinafter referred to collectively as Assignor, has invented:

Relative Axial Translation Prevention System

for which Assignor is about to make or has made United States or International application for patent

- (a) executed on even date preparatory to filing (each inventor should sign this Assignment on the same day as he/she signs the Declaration and Power of Attorney);
- (b) executed on _____; or
- (c) filed on July 27, 2006, and assigned Serial No. 11/494,272 or PCT International Application No. _____;
- (d) U.S. Patent No. _____, issued _____; and

WHEREAS, Tenneco Automotive Operating Company Inc., a Delaware corporation having a place of business at 500 North Field Drive, Lake Forest, Illinois 60045, hereinafter referred to as Assignee, is desirous of acquiring an interest therein:

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy whereof is hereby acknowledged, Assignor by these presents does sell, assign and transfer unto Assignee and its successors in interest, the full and exclusive right, title and interest in the United States of America and all foreign countries, including the right to claim priority under the laws of the United States, the Paris Convention, and any foreign countries, to the said invention as described in the aforesaid application, said application for patent and all Letters Patent therefor to be held and enjoyed by Assignee to the full end of the term for which said Letters Patent are granted and any extensions thereof as fully and entirely as the same would have been held by Assignor had this assignment and sale not been made, and the right to recover for past infringements of, or liabilities for, any of the rights relating to any of said applications or patents resulting therefrom;

Assignor hereby covenants and agrees to execute all instruments or documents required or requested for the making and prosecution of any applications of any type for patent 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, and as to letters patent any reissue, re-examination, 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;

Assignor hereby covenants that no assignment, sale or agreement or encumbrance has been or will be entered into which would conflict with this Assignment; and

Assignor hereby requests the Commissioner of Patents and Trademarks to issue said Letters Patent of the United States of America to Assignee, and requests that any official of any country or countries foreign to the United States, whose duty it is to issue or grant patents and applications as aforesaid, to issue said Letters Patent, Utility Model Registration or Inventor's Certificate to Assignee.

Assignor hereby authorizes and requests my attorney to insert here in parentheses (Application No. _____, filed _____) the filing date and application number of said application when known.

ASSIGNMENT

Van T. Walworth

Date

David B. Hook

Date


Craig Whitaker

Date

11/7/2006

Joseph C. Bacarella

Date

George Moser

Date

ASSIGNMENT

Atty. Docket No. 1316N-001704

WHEREAS, the undersigned, hereinafter referred to collectively as Assignor, has invented:

Relative Axial Translation Prevention System

for which Assignor is about to make or has made United States or International application for patent

- (a) executed on even date preparatory to filing (each inventor should sign this Assignment on the same day as he/she signs the Declaration and Power of Attorney);
- (b) executed on _____, _____, _____; or
- (c) filed on July 27, 2006, and assigned Serial No. 11/494,272 of PCT International Application No. _____;
- (d) U.S. Patent No. _____, issued _____; and

WHEREAS, Tenneco Automotive Operating Company Inc., a Delaware corporation having a place of business at 500 North Field Drive, Lake Forest, Illinois 60045, hereinafter referred to as Assignee, is desirous of acquiring an interest therein:

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy whereof is hereby acknowledged, Assignor by these presents does sell, assign and transfer unto Assignee and its successors in interest, the full and exclusive right, title and interest in the United States of America and all foreign countries, including the right to claim priority under the laws of the United States, the Paris Convention, and any foreign countries, to the said invention as described in the aforesaid application, said application for patent and all Letters Patent therefor to be held and enjoyed by Assignee to the full end of the term for which said Letters Patent are granted and any extensions thereof as fully and entirely as the same would have been held by Assignor had this assignment and sale not been made, and the right to recover for past infringements of, or liabilities for, any of the rights relating to any of said applications or patents resulting therefrom;

Assignor hereby covenants and agrees to execute all instruments or documents required or requested for the making and prosecution of any applications of any type for patent 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, and as to letters patent any reissue, re-examination, 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;

Assignor hereby covenants that no assignment, sale or agreement or encumbrance has been or will be entered into which would conflict with this Assignment; and

Assignor hereby requests the Commissioner of Patents and Trademarks to issue said Letters Patent of the United States of America to Assignee, and requests that any official of any country or countries foreign to the United States, whose duty it is to issue or grant patents and applications as aforesaid, to issue said Letters Patent, Utility Model Registration or Inventor's Certificate to Assignee.

Assignor hereby authorizes and requests my attorney to insert here in parentheses (Application No. _____, filed _____) the filing date and application number of said application when known.

ASSIGNMENT

Van T. Walworth

Date

David B. Hook

Date

Craig Whitaker

Date



Joseph C. Bacarella

11-7-2006

Date

George Moser

Date

ASSIGNMENT

Atty. Docket No. 1316N-C01704

WHEREAS, the undersigned, hereinafter referred to collectively as Assignor, has invented:

Relative Axial Translation Prevention System

for which Assignor is about to make or has made United States or International application for patent

- (a) executed on even date preparatory to filing (each inventor should sign this Assignment on the same day as he/she signs the Declaration and Power of Attorney);
- (b) executed on _____, _____, _____; or
- (c) filed on July 27, 2006, and assigned Serial No. 11/494,272 or PCT International Application No. _____;
- (d) U.S. Patent No. _____, issued _____; and

WHEREAS, Tenneco Automotive Operating Company Inc., a Delaware corporation having a place of business at 500 North Field Drive, Lake Forest, Illinois 60045, hereinafter referred to as Assignee, is desirous of acquiring an interest therein:

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy whereof is hereby acknowledged, Assignor by these presents does sell, assign and transfer unto Assignee and its successors in interest, the full and exclusive right, title and interest in the United States of America and all foreign countries, including the right to claim priority under the laws of the United States, the Paris Convention, and any foreign countries, to the said invention as described in the aforesaid application, said application for patent and all Letters Patent therefor to be held and enjoyed by Assignee to the full end of the term for which said Letters Patent are granted and any extensions thereof as fully and entirely as the same would have been held by Assignor had this assignment and sale not been made, and the right to recover for past infringements of, or liabilities for, any of the rights relating to any of said applications or patents resulting therefrom;

Assignor hereby covenants and agrees to execute all instruments or documents required or requested for the making and prosecution of any applications of any type for patent 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, and as to letters patent any reissue, re-examination, 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;

Assignor hereby covenants that no assignment, sale or agreement or encumbrance has been or will be entered into which would conflict with this Assignment; and

Assignor hereby requests the Commissioner of Patents and Trademarks to issue said Letters Patent of the United States of America to Assignee, and requests that any official of any country or countries foreign to the United States, whose duty it is to issue or grant patents and applications as aforesaid, to issue said Letters Patent, Utility Model Registration or Inventor's Certificate to Assignee.

Assignor hereby authorizes and requests my attorney to insert here in parentheses (Application No. _____, filed _____) the filing date and application number of said application when known.

ASSIGNMENT

Van T. Walworth

Date

David B. Hook

Date

Craig Whitaker

Date

Joseph C. Bacarella

Date



George Moser

11-20-06
Date