

01-21-2000



FORM PTO-1-31-92

101280778

U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office

FORM COVER SHEET PATENTS ONLY



To the Honorable Commissioner of Patents and Trademarks. Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

MRD 11-2-99

Ronald D. Shinogle
Vernon R. Smith
Richard A. De Keyser
Stephen F. Glassey
Yasser A. Charif

Additional Names attached: [] Yes [X] No

2. Name and address of receiving party(ies):

Name: Caterpillar Inc.

Internal Address: Intellectual Property Department

Street Address: 100 N.E. Adams Street

City: Peoria State: Illinois

Zip: 61629-6490

Additional name(s) & addresses attached? [] Yes [X] No

3. Nature of Conveyance:

[X] Assignment
[] Security Agreement
[] Other

Execution Date(s): 10/11/99, 10/11/99, 10/07/99, 10/15/99, and 10/28/99

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

If this document is being filed together with a new application, the execution date of the application is _____.

A. Patent Application No.(s) 09/322,770, filed: May 28, 1999

B. Patent No.(s)

Additional numbers attached? [] Yes [X] No

Title of Invention: METHOD AND STRUCTURE FOR CONTROLLING AN APPARATUS, SUCH AS A FUEL INJECTOR, USING ELECTRONIC TRIMMING

Attorney Docket No.: 87-146R

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

Name: Larry G. Cain
CATERPILLAR INC.

Internal Address: Intellectual Property Dept.

Street Address: 100 N. E. Adams Street

City: Peoria State: IL

Zip: 61629-6490

6. Total number of applications and patents involved [1]

7. Total fee (37 CFR §3.41) \$ 40.00
[] Enclosed
[X] Authorized to be charged to deposit account

8. Deposit account number: 03-1129
(If charged duplicate copy attached)

9. Statement and signature:

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Larry G. Cain
Name of Person Signing

Signature

10/28/99
Date

Total number of pages comprising cover sheet, attachments, and document: [11]

Mail document to be recorded with required cover sheet information to:

Commissioner of Patents and Trademarks
Box Assignments
Washington, D.C. 20231

ASSIGNMENT

WHEREAS, RONALD D. SHINOGLA, residing at Peoria, Illinois, hereinafter referred to as ASSIGNOR, has invented together with Vernon R. Smith, Richard A. De Keyser, Stephen F. Glassey, and Yasser A. Al-Charif, a new and useful

METHOD AND STRUCTURE FOR CONTROLLING AN APPARATUS, SUCH AS A FUEL INJECTOR,
USING ELECTRONIC TRIMMING

for which ASSIGNOR has made application for Letters Patent in the United States of America, such invention being described and identified by said application identified as Application No. 09/322,770, filed May 28, 1999; and

WHEREAS, CATERPILLAR INC., a Delaware corporation having a place of business at Peoria, State of Illinois, United States of America, hereinafter referred to as ASSIGNEE, is desirous of acquiring the entire right, title and interest in and to said invention and any Letters Patent granted thereon by the United States of America and any foreign country;

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) and for other good and valuable consideration received by ASSIGNOR from ASSIGNEE, the receipt of which is hereby acknowledged by ASSIGNOR;

1. ASSIGNOR hereby sells, assigns, transfers and conveys unto ASSIGNEE the entire right, title and interest in and to said invention, any application therefor, and any Letters Patent granted thereon by the United States of America and any foreign country, including any continuing application, reissue or extension thereof, together with the right to file applications and obtain patents for said invention in any foreign country, and covenant that ASSIGNOR has the full right to do so.

2. At the request and expense of ASSIGNEE, ASSIGNOR agrees to communicate to ASSIGNEE any facts known respecting said invention, to execute all papers necessary to file any application on said invention necessary or desirable to aid ASSIGNEE in obtaining and enforcing proper protection for said invention in the United States of America and any foreign country.

3. ASSIGNOR hereby authorizes and requests the COMMISSIONER OF PATENTS AND TRADEMARKS to issue the United States Letters Patent on said invention, when granted, to CATERPILLAR INC.

4. This assignment shall inure to the benefit of ASSIGNEE, its successors, assigns and other legal representatives, and shall be binding upon ASSIGNOR, ASSIGNOR'S heirs and legal representatives.

IN TESTIMONY WHEREOF, ASSIGNOR has executed this instrument.

Ronald D. Shinogle
RONALD D. SHINOGLA

Oct 11, 1999
Date

IN WITNESS OF the execution hereof by RONALD D. SHINOGLA we have hereunto set our hands.

Michael J. [Signature] OCT. 11, 1999
Witness (1) (Date)

Heather L. [Signature] OCT. 14, 1999
Witness (2) (Date)

Address: 1908 CRENSHAW COVE DR CT.
NORMAL, IL 61761

Address: 5714 N. CYPRESS, APT. 3703
PEORIA, IL 61615

ASSIGNMENT

WHEREAS, VERNON R. SMITH, residing at Peoria, Illinois, hereinafter referred to as ASSIGNOR, has invented together with Ronald D. Shinogle, Richard A. De Keyser, Stephen F. Glassey, and Yasser A. Al-Charif, a new and useful

METHOD AND STRUCTURE FOR CONTROLLING AN APPARATUS, SUCH AS A FUEL INJECTOR,
USING ELECTRONIC TRIMMING

for which ASSIGNOR has made application for Letters Patent in the United States of America, such invention being described and identified by said application identified as Application No. 09/322,770, filed May 28, 1999; and

WHEREAS, CATERPILLAR INC., a Delaware corporation having a place of business at Peoria, State of Illinois, United States of America, hereinafter referred to as ASSIGNEE, is desirous of acquiring the entire right, title and interest in and to said invention and any Letters Patent granted thereon by the United States of America and any foreign country;

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1. ASSIGNOR hereby sells, assigns, transfers and conveys unto ASSIGNEE the entire right, title and interest in and to said invention, any application therefor, and any Letters Patent granted thereon by the United States of America and any foreign country, including any continuing application, reissue or extension thereof, together with the right to file applications and obtain patents for said invention in any foreign country, and covenant that ASSIGNOR has the full right to do so.

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3. ASSIGNOR hereby authorizes and requests the COMMISSIONER OF PATENTS AND TRADEMARKS to issue the United States Letters Patent on said invention, when granted, to CATERPILLAR INC.

4. This assignment shall inure to the benefit of ASSIGNEE, its successors, assigns and other legal representatives, and shall be binding upon ASSIGNOR, ASSIGNOR'S heirs and legal representatives.

IN TESTIMONY WHEREOF, ASSIGNOR has executed this instrument.

Vernon R. Smith
VERNON R. SMITH

10/11/99
Date

IN WITNESS OF the execution hereof by VERNON R. SMITH we have hereunto set our hands.

Carl A. Turner 10/11/99
Witness (1) (Date)

Ernest Brant 10/11/99
Witness (2) (Date)

Address: 5121 N Prospect Rd
Peoria Heights IL
61614

Address: 13604 N SAVAGE Rd
BRIMFIELD IL 61517

ASSIGNMENT

WHEREAS, RICHARD A. DE KEYSER, residing at Edelstein, Illinois, hereinafter referred to as ASSIGNOR, has invented together with Ronald D. Shinogle, Vernon R. Smith, Stephen F. Glassey, and Yasser A. Al-Charif, a new and useful

METHOD AND STRUCTURE FOR CONTROLLING AN APPARATUS, SUCH AS A FUEL INJECTOR, USING ELECTRONIC TRIMMING

for which ASSIGNOR has made application for Letters Patent in the United States of America, such invention being described and identified by said application identified as Application No. 09/322,770, filed May 28, 1999; and

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2. At the request and expense of ASSIGNEE, ASSIGNOR agrees to communicate to ASSIGNEE any facts known respecting said invention, to execute all papers necessary to file any application on said invention necessary or desirable to aid ASSIGNEE in obtaining and enforcing proper protection for said invention in the United States of America and any foreign country.

3. ASSIGNOR hereby authorizes and requests the COMMISSIONER OF PATENTS AND TRADEMARKS to issue the United States Letters Patent on said invention, when granted, to CATERPILLAR INC.

4. This assignment shall inure to the benefit of ASSIGNEE, its successors, assigns and other legal representatives, and shall be binding upon ASSIGNOR, ASSIGNOR'S heirs and legal representatives.

IN TESTIMONY WHEREOF, ASSIGNOR has executed this instrument.

Richard A. De Keyser
RICHARD A. DE KEYSER

10/07/99
Date

IN WITNESS OF the execution hereof by RICHARD A. DE KEYSER we have hereunto set our hands.

Angela C. Prayne 10/7/99
Witness (1) (Date)

Anthony J. Prayne 10/7/99
Witness (2) (Date)

Address: 1220 W. Chestnut
Chillicothe, IL
61523

Address: 1220 W. Chestnut
Chillicothe, IL
61523

ASSIGNMENT

WHEREAS, STEPHEN F. GLASSEY, residing at Gulnare, Colorado, hereinafter referred to as ASSIGNOR, has invented together with Ronald D. Shinogle, Vernon R. Smith, Richard A. De Keyser, and Yasser A. Al-Charif, a new and useful

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1. ASSIGNOR hereby sells, assigns, transfers and conveys unto ASSIGNEE the entire right, title and interest in and to said invention, any application therefor, and any Letters Patent granted thereon by the United States of America and any foreign country, including any continuing application, reissue or extension thereof, together with the right to file applications and obtain patents for said invention in any foreign country, and covenant that ASSIGNOR has the full right to do so.

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3. ASSIGNOR hereby authorizes and requests the COMMISSIONER OF PATENTS AND TRADEMARKS to issue the United States Letters Patent on said invention, when granted, to CATERPILLAR INC.

4. This assignment shall inure to the benefit of ASSIGNEE, its successors, assigns and other legal representatives, and shall be binding upon ASSIGNOR, ASSIGNOR'S heirs and legal representatives.

IN TESTIMONY WHEREOF, ASSIGNOR has executed this instrument.

SF Glassey
STEPHEN F. GLASSEY

10/15/99
Date

IN WITNESS OF the execution hereof by STEPHEN F. GLASSEY we have hereunto set our hands.

Cathy T. Krai 10/15/99
Witness (1) (Date)

Address: 23750 C.R. 43.6
Sulmona, CO
81020

M.R. Glassey 10/15/99
Witness (2) (Date)

Address: 21750 Spirit Mt. Dr.
Sulmona, Co
81020

ASSIGNMENT

WHEREAS, YASSER A. ~~ME~~-CHARIF, residing at Farmington, Michigan, hereinafter referred to as ASSIGNOR, has invented together with Ronald D. Shinogle, Vernon R. Smith, Richard A. De Keyser, and Stephen F. Glassey, a new and useful

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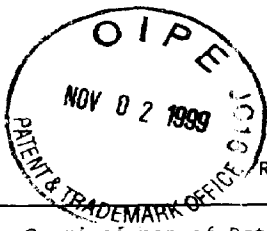
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RECORDATION FORM COVER SHEET
PATENTS ONLY

To the Honorable Commissioner of Patents and Trademarks. Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

Ronald D. Shinogle
Vernon R. Smith
Richard A. De Keyser
Stephen F. Glassey
Yasser A. Charif

Additional Names attached: Yes No

2. Name and address of receiving party(ies):

Name: Caterpillar Inc.

Internal Address: Intellectual Property Department

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10/15/99, and 10/28/99

Additional name(s) & addresses attached? Yes No

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Attorney Docket No.: 87-146R

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

Name: Larry G. Cain
CATERPILLAR INC.

Internal Address: Intellectual Property Dept.

Street Address: 100 N. E. Adams Street

City: Peoria State: IL

Zip: 61629-6490

6. Total number of applications and patents involved [1]

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 Authorized to be charged to deposit account

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(If charged duplicate copy attached)

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To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Larry G. Cain
Name of Person Signing


Signature

10/28/99
Date

Total number of pages comprising cover sheet, attachments, and document: [11]

Mail document to be recorded with required cover sheet information to:

Commissioner of Patents and Trademarks
Box Assignments
Washington, D.C. 20231