OMB No. 0651-0027 (exp. 6/30/2005)	
Tab settings → To the Honorable Commissioner of Paccess 10259	7339 Please Record the attached original documents or copy thereof.
Name of conveying party(ies): Ronald D. Shinogle Mark S. Cavanagh Ali Uludogan	2. Name and address of receiving party(ies) Name: Caterpillar, Inc. Patent Department
Additional name of conveying party(ies) attached? Yes No	Internal Address:
Nature of conveyance:	Street Address: 100 NE Adams Street
☐ Security Agreement ☐ Change of Name ☐ Other	City: Peoria State: IL Zip: 61629 Additional Name(s) & address(es) attached? ☐ Yes ☒ No
021 40.00 0P Additional numbers at	tached? ☐ Yes ⊠ No
Name and address of party to whom correspondence concerning this document should be mailed:	6. Total number of applications and patents involved: 1
Name: Michael B. McNeil Internal Address: Liell & McNeil Attorneys PC	7. Total fee (37 CFR 3.41) \$ 40 ☑ Enclosed ☐ Authorized to be charged to deposit account
Street Address: P.O. Box 2417	Deposit account number: 500226
City: Bloomington State: IN Zip: 47402	(Attach duplicate copy of this page if paying by deposit account)
DO NOT US	E THIS SPACE
9. Statement and signature.	

Total number of pages including cover sheet, attachments, and documents:

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

Commissioner of Patents & Trademarks, Box Assignments

Washington, D.C. 20231

PATENT REEL: 014665 FRAME: 0550 110303

ASSIGNMENT

WHEREAS, Ronald D. Shinogle, residing at Peoria, Illinois, hereinafter referred to ASSIGNOR has invented together with Mark S. Cavanagh and Ali Uludogan a new and useful

INJECTION OF FUEL VAPOR AND AIR MIXTURE INTO AN ENGINE CYLINDER
for which ASSIGNOR is about to file an international application and/or make application for Letter
Patent in the United States of America, such invention being described and identified by said
application having an attached International Application Request and/or an attached Declaration and
Power of Attorney executed by ASSIGNOR on; and; 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 patent
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.

01-635

Kourt Blues l	7-28-03
RONALD D. SHINOGLE	Date
	IALD D. SHINOGLE we have hereunto set our hands.
Edware & 2 Ull 7/29/03 Witness (1) Date	Witness (2) Date
Address: 3 Valley Brook Ct.	Address: 304// N. 2280 East Rd
Bloomington, IC GMOY	- Gridley, IL 61744

PATENT REEL: 014665 FRAME: 0551

ASSIGNMENT

WHEREAS, Mark S. Cavanagh, residing at Bloomington, Illinois, hereinafter referred to ASSIGNOR has invented together with Ronald D. Shinogle and Ali Uludogan a new and useful

INJECTION OF FUEL VAPOR AND AIR MIXTURE INTO AN ENGINE CYLINDER

WHEREAS, Caterpillar Inc., a Delaware corporation having a place of business at Peoria, State of Illinois, United States of America, hereinafter referred to as ASSKGNEE, 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 Cateroillar 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 TESTIM	ONY WHEREOF, ASS	IGNOR has executed this insti	rument.
Mark S. CAVANA	Caronof	10-14-03	<u>₹</u>
MARK S. CAVANA	AGH //	Date	
IN WITNESS OF the	e execution hereof by M	ARK S. CAVANAGH we have	ve hereunto set our hand
Munic	10/14/03	Du Bohi	10/14/03
Witness (1)	Date	Witness (2)	Date
	ONWOOD CC. DRIVE	Address: 2001 TR	ACY DA +6
NORMAL, IL	61761	BLOOMWERDN	14, 61704
	·		· · · · · · · · · · · · · · · · · · ·
01-635			

01-033

ASSIGNMENT

WHEREAS, Ali Uludogan, residing at Peoria, Illinois, hereinafter referred to ASSIGNOR has invented together with Mark S. Cavanagh and Ronald D. Shinogle a new and useful

INJECTION OF FUEL VAPOR AND AIR MIXTURE INTO AN ENGINE CYLINDER
for which ASSIGNOR is about to file an international application and/or make application for Letters Patent in the United States of America, such invention being described and identified by said application having an attached International Application Request and/or an attached Declaration and Power of Attorney executed by ASSIGNOR on 5/7/2003; 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.

ALTULUDOGAN

Date

IN WITNESS OF the execution hereof by ALI ULUDOGAN we have hereunto set our hands.

Witness (1)

Date 5/7/03

Witness (2)

Address: 3734 N. Harmon Ave.

Peoria, IL 6/0/4

Bartonville, IL 6/60

Bartonville, IL 6/60

TESTIMONY WHEREOF, ASSIGNOR has executed this instrument.

01-635

RECORDED: 11/03/2003

PATENT REEL: 014665 FRAME: 0553