FORM PTO-1619A Expires 06/30/99 OMB 0651-0027

01-14-2002



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Conveying I	Month Day Year			
Name (line 1)	Bradley J. Shaffer 12/20/2001			
Name (line 2)				
Second Party	Execution Date Month Day Year			
Name (line 1)				
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Receiving P	Mark if additional names of receiving parties attached			
Name (line 1)	Caterpillar Inc. If document to be recorded is an assignment and the			
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Mail documents to be recorded with required cover sheet(s) information to: Commissioner of Patents and Trademarks, Box Assignments , Washington, D.C. 20231

PATENT

REEL: 012441 FRAME: 0332

FORM PTO-1619B Expires 06/30/99 OMB 0651-0027	Page 2		U.S. Department of Commerce Patent and Trademark Office PATENT
Correspondent Name and A	Address Area Code and Te	elephone Number (309)	675-1668
Name Keith P. Rober	son		
Address (line 1) Caterpillar In	С.		
Address (line 2) Intellectual P	roperty Department		
Address (line 3) 100 N. E. Adam	s Street		
Address (line 4) Peoria, IL 61	629-6490		
Pages Enter the total nu including any at	mber of pages of the attached datachments.	conveyance document	# [1
Application Number(s) or P	, .	L	nal numbers attached
• •	ımber or the Patent Number (DO NOT E		
Patent Application Nu	ımber(s)	Patent Nun	nber(s)
If this document is being filed together wis signed by the first named executing inve		late the patent application was	Month Day Year 12/20/2001
Patent Cooperation Treaty			
Enter PCT application	number	PCT	PCT
only if a U.S. Application		PCT	PCT

Method of Payment: Deposit Account X Enclosed **Deposit Account** (Enter for payment by deposit account or if additional fees can be charged to the account.) # 03-1129 **Deposit Account Number:** Docket No. 01-327 Authorization to charge additional fees: X No Yes Statement and Signature

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Fee Amount for Properties Listed (37 CFR 3.41): \$ 40.00

Number of Properties

Fee Amount

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. Charges to deposit account are authorized, as indicated herein.

Keith P. Roberson Date Name of Person Signing

#

ASSIGNMENT

WHEREAS, Bradley J. Shaffer, residing at Romney, Indiana, hereinafter referred to as ASSIGNOR, has invented a new and useful

MULTI-STAGE TURBOCHARGER WITH CROSS FLOW

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 $\frac{12/20/01}{}$; 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.

Bradley J. SHAFFER	20 Dec 2001 Date
IN WITNESS OF the execution hereof by BRA	Witness (2) DLEY J. SHAFFET we have hereunto set our hands Date
Address: 44 Jester Court Latayo.He, IN 47905	Address: 5656 Kowlery Mily Leftytte de 47905

RECORDED: 12/21/2001

PATENT REEL: 012441 FRAME: 0334