12/12/2018 505233309

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT5280079

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
HONGZHOU XU	10/23/2018
KEVIN LIU	10/23/2018
MICHAEL D. FOX	10/23/2018

RECEIVING PARTY DATA

Name:	SOLAR TURBINES INCORPORATED
Street Address:	2200 PACIFIC HIGHWAY
City:	SAN DIEGO
State/Country:	CALIFORNIA
Postal Code:	92101

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16217953

CORRESPONDENCE DATA

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Email: US docket clerk@cat.com CATERPILLAR INC. JOINT OC **Correspondent Name:**

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Address Line 4: PEORIA, ILLINOIS 61629-9510

ATTORNEY DOCKET NUMBER:	119061-166UT1
NAME OF SUBMITTER:	PAMELA SKELTON
SIGNATURE:	/Pamela Skelton/
DATE SIGNED:	12/12/2018

Total Attachments: 4

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> **PATENT REEL: 047757 FRAME: 0985** 505233309

ASSIGNMENT

WHEREAS I/We, the below named inventor(s), [hereinafter referred to as Assignor(s)], have made an invention entitled:

TURBINE BLADE WITH A COUPLED SERPENTINE CHANNEL

for which I/We will or have filed a patent application; and

WHEREAS, **SOLAR TURBINES INCORPORATED**, a corporation of Delaware whose post office address is 2200 Pacific Highway, San Diego, CA 92101, United States of America (hereinafter referred to as Assignee), is desirous of securing the entire right, title, and interest in and to this invention, and in and to the patent application for this invention and any and all patents to be issued upon this application throughout the world;

NOW THEREFORE, be it known that for good and valuable consideration the receipt of which from Assignee is hereby acknowledged, I/We, as Assignor(s), have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer, and set over unto the Assignee, its lawful successors and assigns, my/our entire right, title, and interest in and to this invention, and this application, and all divisions, and continuations thereof, and all patents which may be granted thereon, and all reissues thereof, as well as all rights to claim priority in any country or jurisdiction or patent office on the basis of this application, and all applications for patents which may hereafter be filed for this invention in any country or jurisdiction or patent office and all patents which may be granted on this invention in any country or jurisdiction or patent office, and all extensions, renewals, and reissues thereof; and I/We hereby authorize and request any official of any country or jurisdiction or patent office whose duty it is to issue patents on applications as described above, to issue all patents for this invention to Assignee, its successors and assigns, in accordance with the terms of this Assignment;

AND, I/WE HEREBY covenant that I/We have the full right to convey the interest assigned by this Assignment, and I/We have not executed and will not execute any agreement in conflict with this Assignment;

AND, I/WE HEREBY further covenant and agree that I/We will, without further consideration, communicate with Assignee, its successors and assigns, any facts known to me/us respecting this invention, and testify in any legal proceeding, sign all lawful papers when called upon to do so, execute and deliver any and all papers that may be necessary or desirable to perfect the title to this invention in said Assignee, its successors or assigns, execute all divisional, continuation, and reissue applications, make all rightful oaths and generally do everything possible to aid Assignee, its successors and assigns, to obtain and enforce proper patent protection for this invention in any country or jurisdiction or patent office, it being understood that any expense incident to the execution of such papers shall be borne by the Assignee, its successors and assigns;

AND, I/WE HEREBY authorize Assignee or the attorneys/representatives of Assignee to insert here in parentheses the country, application number, and official filing date (United States Application No. 16/217,953 , filed December 12, 2018).

IN TESTIMONY WHEREOF, I/We have hereunto set our hands.

FULL NAME OF SOLE OR FIRST ASSIGNOR Hongzhou Xu	ASSIGNOR'S SIGNATURE	DATE 10/23/20/8
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	3	
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RECORDED: 12/12/2018

PATENT REEL: 047757 FRAME: 0989