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Address (line 1) Kremblas, Foster, Phillips and F	Pollick	
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Address (line 3) Columbus OH 43214-6510		
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Pollick,	Philip	<u>. </u>			
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ASSIGNMENT

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Jiming Cao, and E. Thomas Henkel Richard N. Christensen. ĽΟ The Ohio State University

WEEREAS we, Richard N. Christensen and Jiming Cao, of Columbus, in the County of Franklin and State of Ohio and E. Thomas Henkel of Changl Hill in the County of Orange and State of North Carolina have made certain inventions on a HEAT ENGINE for which we have make application for Letters Patent of the United States having application number PCT/US00/34015 and filed on December 15. 2000 based on and claiming the benefit of United States provisional applications 60/172 188 filed December 17, 1999 and 60/243.164 filed October 25, 2000; and

The Ohio State University a corporation of Ohio , baving a place of business at 1960 Kenny Road, Columbus, Ohio 43210-1063, herein called "ASSIGNEE", is desirous of acquiring the entire right, title, and interest in said invention and application therefor, and in any patent or patents to be obtained therefor;

NOW, THEREFORE, To All Whom it May Concern, be it known that, for good and valuable considerations, the receipt of which is hereby acknowledged, I have sold, assigned, and transferred, and by these presents do sell, assign, and transfer unto the said Assignce, the entire right, title, and interest is and to the investion shown, described, or claimed therein, and the full and exclusive right and title to the said application executed by me as indicated below preparatory to obtaining Letters Patent of the United States therefor, and in and to any extensions, reference, divisions, or renowals thereof; and I do hereby authorize and request the Commissioner of Patents or other proper Officer, to issue such Letters Patent, or any of them, to the said Assignee, as the assignee of my entire right, title, and inserest in and to the same for the sole use and behalf of the said Assignes, and its successors or assigns.

And I further covenant and agree that I will, at the request and expense of the said Assignee, execute such other and further assurances of title as may be necessary or proper to fully convey the interest herein sought to be conveyed; that I will, at the request and expense of the said Assignee, execute such application papers as may be desired by the said Assigned for the filing of any division or renewal of the application herein conveyed, or for relatues or extensions of any Letters patent that may be granted upon said application, and will execute such Supplemental Ouths and Preliminary Statements, or other papers as desired by the said Assignes.

And I further assign unto the said Assignee the whole right, title, and interest to the invention disclosed in the application throughout all countries foreign to the United States, and do hereby authorize the said Assignee to apply for the patents therefor in its own name in countries where such procedure is proper and to claim the benefit of the International Convention and do agree to execute applications for the mid invention in the several countries where it is necessary that the same be executed by the inventor, and to execute assignments of such applications and the patents to be obtained therefor to the said audgnes, as well as all other necessary papers.

I acknowledge that the execution of this assignment is my voluntary act for the uses and purposes hereis set forth.

I declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful fulse statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of the United States Code and that such willful false statements may propardize the validity of the application and any patent issuing

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thereon.

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