

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT3698408

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
CUMMINS TURBO TECHNOLOGIES LIMITED	06/24/2010
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	CUMMINS LTD.
<b>Street Address:</b>	49-51 GRESHAM ROAD
<b>City:</b>	STAINES, MIDDLESEX
<b>State/Country:</b>	UNITED KINGDOM
<b>Postal Code:</b>	TW18 2BD
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Patent Number:</b>	5941684
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(202)672-5399
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>	
<b>Phone:</b>	312-832-4500
<b>Email:</b>	Jherold@Foley.com
<b>Correspondent Name:</b>	JASON A. BERTA - FOLEY & LARDNER LLP
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<b>ATTORNEY DOCKET NUMBER:</b>	089934-0677 FINAL ASSIGN
<b>NAME OF SUBMITTER:</b>	JASON A. BERTA
<b>SIGNATURE:</b>	/Jason A. Berta/
<b>DATE SIGNED:</b>	01/15/2016
<b>Total Attachments: 12</b>	
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DATED

24 June 2010

DEED OF ASSIGNMENT OF INTELLECTUAL PROPERTY RIGHTS

between

CUMMINS TURBO TECHNOLOGIES LIMITED

and

CUMMINS LIMITED

**THIS DEED** is dated 14 June 2010

**PARTIES**

- (1) **CUMMINS TURBO TECHNOLOGIES LIMITED** incorporated and registered in England and Wales with company number 00506282 whose registered office is at 49-51 Gresham Road, Staines, Middlesex TW18 2BD (**Assignor**); and
- (2) **CUMMINS LIMITED** incorporated and registered in England and Wales with company number 00573951 whose registered office is also at 49-51 Gresham Road, Staines, Middlesex TW18 2BD (**Assignee**).

**BACKGROUND**

- (A)
- (B) As part of the ongoing rationalisation of the structure of the business of the Assignee's overall group of companies, the Assignor has agreed to assign to the Assignee the Intellectual Property Rights on the terms set out in this assignment.

**AGREED TERMS**

**1. INTERPRETATION**

- 1.1 The definitions and rules of interpretation in this clause apply in this agreement.

**Patents:** the patents and the applications short particulars of which are set out in the Valuation.

## 2. ASSIGNMENT

In consideration of \_\_\_\_\_ (receipt of which the Assignor expressly acknowledges), the Assignor hereby assigns to the Assignee absolutely with full title guarantee all its right, title and interest in and to the Assigned Rights, including:

- (a) the absolute entitlement to any registrations granted pursuant to any of the applications comprised in the Patents, Registered Designs and Trade Marks;
- (b) all goodwill attaching to the Trade Marks and in respect of the business relating to the goods or services in respect of which the Trade Marks are registered or used; and
- (c) the right to bring, make, oppose, defend, appeal proceedings, claims or actions and obtain relief (and to retain any damages recovered) in respect of any infringement, or any other cause of action arising from ownership, of any of the Assigned Rights whether occurring before, on, or after the date of this assignment.

Executed as a deed by CUMMINS TURBO  
TECHNOLOGIES LIMITED acting by:

  
.....  
Director

in the presence of:

  
.....

Name of witness... AMANDA JANE ROBINSON

Address of witness... CATSHAW HOUSE, CATSHAW LANE

MILHOUSE GREEN, SHEFFIELD, S36 9ND

Occupation of witness... CHARTERED ACCOUNTANT

Executed as a deed by CUMMINS LIMITED  
acting by:

.....  
Director

in the presence of:

.....  
Name of witness.....

Address of witness.....

.....  
Occupation of witness.....

Executed as a deed by CUMMINS TURBO  
TECHNOLOGIES LIMITED acting by:

.....  
Director

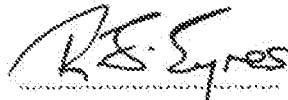
in the presence of:

.....  
Name of witness.....

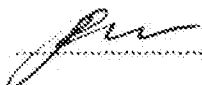
Address of witness.....

.....  
Occupation of witness.....

Executed as a deed by CUMMINS LIMITED  
acting by:

  
.....  
Director

in the presence of:

  
.....  
Name of witness. EDITA STONIENE

Address of witness. 49-51 GLESHAM  
ROAD, STAINES, TWIL LOD

Occupation of witness. ADMINISTRATOR

**Schedule 1 The Valuation**

*Key Technology and Patents*

The current product/technology mix of Cummins includes the following<sup>5</sup>:

VGT (patented): provides infinite control of boost pressure. Holset VGT uses a turbine stage where the swallowing capacity is automatically varied while the engine is running. This permits turbine power to be set, providing sufficient energy to drive the compressor at the desired boost level wherever the engine is operating. This is achieved by varying the area of a nozzle; a set of guide vanes that control the flow of exhaust gas through the turbine. Conventional designs pivot the vanes to achieve different nozzle areas. The Holset VGT is

extraordinary in that the vanes do not pivot but slide axially; this design ensures a high level of durability and reliability, essential for today's commercial diesel applications. The sliding nozzle ring alters the aperture through which the exhaust gases flow onto the turbine wheel. This alteration in the geometry of the turbocharger increases the boost as the nozzle is closed down. Reducing the aperture increases exhaust manifold pressure and increases the turbocharger speed. As the nozzle ring opens up, the exhaust pressure reduces and the turbocharger boost decreases. In effect it creates an infinite number of fixed geometry turbochargers.

Management summarised the patent/design portfolio supporting the current technology of CTT as follows:

<b>Patents, total</b>	344	<b>Design</b>	4
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	<b>Total</b>
United States of America	60

Out of the total 348 patents/designs, the key areas covered by the inventions made by Cummins refer to the following<sup>6</sup>:

**Variable geometry turbine**