Opinion Number

OPINION UNDER SECTION 74A

Patent	GB2499285 B
Proprietor(s)	David John Utting
Exclusive Licensee	
Requester	IP 21 Limited on behalf of David John Utting
Observer(s)	Potter Clarkson LLP
Date Opinion issued	20 February 2020

The request

- 1. The comptroller has been requested by IP 21 Limited on behalf of David John Utting ("the Requester") to issue a validity opinion in respect of GB2499285 B ("the Patent") in the name of David John Utting. The request invites confirmation that the Patent is valid in the light of two prior art documents GB2136947 and US4685385.
- 2. The Patent entitled "Transportable vehicle enclosures" was granted on 19 March 2014 and is still in force. The Patent claims priority from Patent Application No. GB 1213234.6 with a filing date of 25 July 2012.
- 3. The request was received on 22 November 2019 and was accompanied by a statement explaining the request along with copies of the prior art documents and the Patent itself.

Observations and observations in reply

- 4. Observations were received on 20 December 2019 from Potter Clarkson LLP ("the Observer"). The observations included arguments disputing the validity of the patent.
- 5. Observations in reply were received from the Requester on 6 January 2020.

Preliminary Matters

6. There appears to be some confusion as to whether GB2136947 was considered during the original examination of the Patent and consequently should not be considered now. GB2136947 was cited against equivalent application WO 2014/016606 and should have been considered by the examiner in the course of

updating the original search. It would not, however, have been clear to the applicant that this was the case and as such they would have had no opportunity to comment on the relevance of this document. I am therefore happy for this document to now be included. Notwithstanding this, it should be noted that US4685385 which is by the same applicant repeats in its entirety the contents of GB2136947.

- 7. In their section on inventive step the Requester refers to US 5853215. Although this document is listed as prior art in the Patent and was considered by the examiner in the original examination process it has not been assessed in the light of the potentially new prior art documents. As such, if necessary assessment of this document in the light of GB2136947 and US 4685385 is also considered to be acceptable.
- 8. It is also noted that both the Requester and Observer have made comments with respect to the proceedings of equivalent applications in other jurisdictions. These proceedings are irrelevant to the matter in hand and will be given no consideration.

The Patent

9. The Patent relates to a transportable vehicular workshop for conducting automobile spray painting and curing operations. In the discussion of the prior art it is stated that known transportable workshops are unsuitable for conducting automobile paint spraying and curing operations in a stand-alone facility. The benefits of the invention are acknowledged to include the ability to more easily move the enclosure from one location to another, not having to take a vehicle to specific location for bodywork repair and the integral air handling unit making the unit suitable for both the spraying and curing aspects of the spray-painting process. The embodied invention is shown in the figures, figures 1 and 2 being reproduced below for reference.





- 10. A transportable vehicle enclosure 1 having a floor 3, a ceiling 4 and a rear portion 5 is shown. The front portion 6 incorporates doors 7, 8 and an air handling unit is provided in the rear portion 5. Air passes though inlet plenum 9 (unlabelled on figure 1 but considered to be implicitly disclosed as it is the only missing reference numeral) before reaching the vehicle containing part of the enclosure and exits via lower extraction duct 15. The air flows substantially diagonally across the length of the inside of the enclosure as show by arrows 10-14. The air handling unit incorporates a direct gas fired burner with input and extraction fans (EX, IN, figure 2) and is capable of heating the air provided to the enclosure. In a preferred embodiment, the air handling unit raises the temperature of the incoming air to 22°C for spraying and 60°C for baking. The rear portion may also house a paint store 21 and an equipment store 22.
- 11. There are 17 claims in the granted patent, claim 1 being the only independent claim. As issues relating to the entire claim set are covered by this Opinion I have reproduced them in their entirety below:

1. A transportable vehicle enclosure for painting vehicles; said enclosure being formed as a mono-block suitable for loading onto a transporter and unloading from a transporter comprising side, front, rear, ceiling and floor portions, one of said portions being configured to allow vehicular access; whereby, in use, a vehicle may be placed within said enclosure; said enclosure further comprising an air handling unit integral with said monoblock for respectively producing a first temperature level within said enclosure suitable for a spraying mode of operation and a second temperature level within said enclosure suitable for a baking mode of operation.

2. An enclosure according to claim 1, wherein said air handling unit incorporates an upper air duct for outputting air into the enclosure at either said first or second temperature level; and a lower extraction duct located towards a rear portion of the enclosure's floor; whereby air flows substantially diagonally between said upper air duct and said lower extraction duct.

3. An enclosure according to claim 2, wherein said rear portion incorporates said air handling unit and said lower extraction duct is located adjacent to said air handling unit in said floor.

4. An enclosure according to any of the preceding claims, wherein said air handling unit incorporates a heater; said heater being a direct fired gas burner which is capable of heating air in both said spraying mode of operation and said baking mode of operation.

5. An enclosure according to any of the preceding claims, wherein said air handling unit incorporates a heater; a fresh air inlet; and an airflow controller which in a first position allows fresh air to flow to said heater and which in a second position allows air to flow from inside said enclosure to said heater in order to re-circulate said air.

6. An enclosure according to claim 5, wherein said airflow controller is configured to automatically change from said first to said second position after a predetermined period of time elapses during which no spraying occurs.

7. An enclosure according to claim 6, further comprises a spray gun with a compressed air line; an air flow sensor being provided to sense the flow of air in said compressed air line; said controller changes from said first position to said second position dependent upon the detected presence or absence of air flow.

8. An enclosure according to any of the preceding claims, which is rectangular in plan view and the rear side of said rectangular enclosure contains said air handling plant.

9. An enclosure according to claim 8, wherein less than 3/4 of said rear side surface is occupied by said air handling plant.

10. An enclosure according to any of claims 2 to 9, wherein said floor is formed of longitudinal and sideways extending struts; said floor extraction duct being formed between sideways extending struts.

11. An enclosure according to any of claims 2 to 10, wherein said floor extraction duct incorporates a beam which forms a zigzag pattern; whereby passage ways are provided for extracted air.

12, An enclosure according to any of claims 2 to 11, wherein said floor extraction duct incorporates an extraction filter.

13. An enclosure according to any of the preceding claims, wherein air emitted from enclosure passes through a two or more stage filter.

14. An enclosure according to any preceding claim which is formed as a single integral block for transportation.

15. An enclosure according to any of the preceding claims, further comprising a dryer unit within the enclosure.

16. An enclosure according to claim 14, wherein said dryer unit Is displaceable at least longitudinally within the enclosure and rotatably at least about an axis normal to the enclosure's floor.

17. A transportable vehicle enclosure for painting vehicles substantially as hereinbefore described and/or illustrated in any appropriate combination of the accompanying text and/or figures.

12. I will consider the novelty and inventiveness of the dependant claims should that become necessary after my assessment of claim 1.

Claim construction

13. Before considering the novelty and inventive step issues raised in the request, I need to construe the claims of the patent – that is to say, I must interpret them in the light of the description and drawings as instructed by Section 125(1) :

125(1) For the purposes of this Act an invention for a patent for which an application has been made or for which a patent has been granted shall, unless the context otherwise requires, be taken to be that specified in a claim of the specification of the application or patent, as the case may be, as interpreted by the description and any drawings contained in that specification, and the extent of the protection conferred by a patent or application for a patent shall be determined accordingly.

- 14. In doing so, I must interpret the claims in context through the eyes of the person skilled in the art. Ultimately, the question is what the person skilled in the art would have understood the patentee to be using the language of the claims to mean. This approach has been confirmed in the recent decisions of the High Court in Generics UK Ltd (t/a Mylan) v Yeda Research and Dev. Co. Ltd & Anor [2017] EWHC 2629 (Pat) and the Court of Appeal in Actavis Group & Ors v ICOS Corp & Eli Lilly & Co. [2017] EWCA Civ 1671.
- 15. The question of how the claims should be construed has resulted in a degree of discord between the Requester and the Observer. In their observations the Observer has noted that the Requester has omitted this step from their request before providing a lengthy discussion of each of the 17 claims of the application in which they have broken down each claim into individual features.
- 16. In their observations in reply, the Requester, has pointed out, rightly in my opinion, that such segmentation of the claims and over legalistic interpretation is not what section 125 suggests.

17. In Glaverbel S A v British Coal Corporation, Mummery J. in the Patents Court ([1994] R.P.C. 443) stated (my emphasis added):

"(5) The specification should be given a "purposive construction rather than a purely literal one": see Catnic Components Ltd. v. Hill & Smith Ltd., [1982] R.P.C. 183 at 243. The court asks what are the matters disclosed in the specification which the technician skilled in the art would, with relevant knowledge and experience, understand to be the essential and novel features of the process covered by the patent. Although the language of the specification must be examined with care to discern the relevant purpose, the court must be wary of the danger of losing the true meaning in a word by word or line by line textual dissection of the language of the claims."

- 18. This was later confirmed by the Court of Appeal in Glaverbel S A v British Coal Corporation ([1995] R.P.C. 255). The claims should therefore be viewed through the eyes of the person skilled in the art and to impart an overly legalistic interpretation is not correct.
- 19. The first step in construing the claims is identifying the person skilled in the art. The Requester, in their observations in reply, has provided a definition of this person that I am happy to accept, this being "A designer or engineer of transportable vehicle enclosures which may be suitable for painting vehicles."
- 20. Claim 1 is generally clear although there are a few terms worthy of consideration, these being:

A transportable vehicle enclosure for painting vehicles

21. As highlighted by the Observer, how this term is construed is complicated by the inclusion of the definition of the word vehicle at page 2 lines 20-21 of the description:

"The term vehicle (and the related adjective vehicular) is to be interpreted broadly and may include within its scope at least the following: automotive vehicles, vessels, sledges, cycles, planes, toys and parts and fittings of such devices."

22. However, to quote once more from Glaverbel S A v British Coal Corporation ([1994] R.P.C. 443) (my emphasis added):

"(3) In reading the specification as a whole the different functions of the claim and the rest of the specification should be observed. The claim, cast in precise language, marks out the legal limits of the monopoly granted by the patent: and "what is not claimed is disclaimed". The specification describes how to carry out the process claimed and the best method known to the patentee of doing that. Although the claims are construed in the context of the specification as a whole, it is not permissible to restrict, expand or amend the clear language of a claim by reference to a limitation or gloss in the language used in the earlier part of the specification, but not repeated in the claim itself. It is legitimate, however, to refer to the rest of the specification to explain the background to the claims, to ascertain the meaning of the technical terms and resolve ambiguities in the construction of the claims."

23. It follows that one should not allow a single statement within the description to obscure what would be considered an easily construable term. With the exception of this lone portion of text, the description and figures are concerned with spray painting motor vehicles. It would therefore be unwise to construe this term in claim 1 as meaning anything more than a transportable enclosure suitable for painting automobiles and parts thereof therein.

...said enclosure being formed as a mono-block suitable for loading onto a transporter and unloading from a transporter....said enclosure further comprising an air handling unit integral with said mono-block....

24. I think it is worthwhile considering these terms together rather than in isolation due to the impact that they have on one another. As the Observer right points out, other than in the statement of invention, the term mono-block is only used once within the description c.f page 8 lines 12-13.

"The enclosure may advantageously be built as a single mono block unit which may be easily transported, re-loaded and unloaded in a different location."

- 25. Page 2 lines 12-13 which follow the statement of invention state that this configuration i.e. that of claim 1, is particularly advantageous as it allows both spray painting and curing operations to be tackled in a stand-alone facility.
- 26. However, we do not have to solely rely on the descriptive text. The figures clearly show a single enclosure having two distinct sections, a section housing the vehicle to be painted and a "rear" section, accessed via a doorway, housing the equipment necessary for carrying out the spraying operation, this including an air handling unit.
- 27. The term mono-block must therefore be construed as the enclosure being a single stand-alone transportable enclosure.
- 28. The vehicle containing portion of the enclosure is clear from the figures and requires no further analysis. There are various refences to the rear portion of the enclosure and its relationship to the air handling unit throughout the description. Page 3 line 1 states: *"the rear portion incorporates an air handling unit"*, page 6 line 16 states *"In the rear portion (5) of the enclosure an air handling unit (18) may be provided"* and page 3 lines 30-31 state *"The enclosure is triangular in plan view and its rear most side contains the air handling plant"*. Taking into account the obvious typographic error in this final statement (the figures showing an enclosure which is rectangular in plan view), it is clear that the air handling unit is located in the rear section of the enclosure.
- 29. Further, the description at page 8 lines 23-31 includes a handy summary of the invention with the following terms being of note *"a fully transportable workstation", "stand alone facility", "fully integrated air handling system"* and *"overall integrated nature".*

30. Therefore, I consider that the person skilled in the art would construe these terms together as relating to an enclosure formed as a single standalone, fully integrated, unit that can be loaded and unloaded from some form of transportation, the fully integrated unit including an air handling unit.

...for respectively producing a first temperature level within said enclosure suitable for a spraying mode of operation and a second temperature level within said enclosure suitable for a baking mode of operation.

31. The Observer has commented that there is no restriction in the claims that the second temperature should be different from the first temperature. I agree with the Requester that the person skilled in the art would be more than aware that the temperatures suitable for the spraying and baking (curing) steps of a spray-painting process would not be the same, one being significantly higher than the other. If there was any doubt in the mind of the skilled person, the description would be referred to for confirmation. For example, page 8 lines 14-16 read:

"....it comprises its own direct gas-fired air handling unit with the spray and bake functions producing approximately 20° Celsius and 60° Celsius respectively".

32. The person skilled in the art would construe this aspect of claim 1 as meaning the air handling unit is capable of producing two temperature levels within the enclosure, one suitable for spraying and one suitable for curing.

The dependant claims

- 33. Claims 2-7,10-13, 15-16 are clear and require no further analysis.
- 34. I will briefly comment on the construction of claims 8 and 9 in as much as they refer to the location of the air handling unit. Notwithstanding the aforementioned typographical error (triangular vs rectangular), the only portion of the description which discusses these claims is the near repetitive language used in the summary of the invention. However, it can be clearly seen in figures 1 and 2 what the language of the claims is intended to cover. The enclosure has a front side where the doors are located and a rear side where the air handling unit is located. The air handling plant extends over less than ³/₄ of the length of the rear side of the enclosure.
- 35. The Observer has gone into great deal with respect to how claim 14 should be construed and its "repercussive effect" on the interpretation of claim 1. Based on the information before them, the person skilled in the art would firstly construe claim 1. Having done so they would not then backtrack based on the wording of a dependant claim. In this case, I agree with the Requester that the person skilled in the art would not change their interpretation of claim 1 based on the almost repetitive language of claim 14. The person skilled in the art would construe claim 14 based on the information before him and in the light of previously construed claim 1. In this case, due to the almost repetitive language, they would simply conclude that claim 14 places no further restrictions on the claimed invention.
- 36. Claim 17 is an omnibus claim. I will address the issue of how this claim should be

construed at a later stage if the invention of claims 1-16 is shown not to be novel or inventive.

Novelty and Inventive step – the law

37. 36. Section 1(1)(a) and (b) of the Patents Act (henceforth 'the Act') reads:

1(1) A patent may be granted only for an invention in respect of which the following conditions are satisfied, that is to say –
(a) the invention is new;
(b) it involves an inventive step;

The relevant provisions in relation to novelty are found in section 2(1) and section 2(2) which read:

2(1) An invention shall be taken to be new if it does not form part of the state of the art.

2(2) The state of the art in the case of an invention shall be taken to comprise all matter (whether a product, a process, information about either, or anything else) which has at any time before the priority date of that invention been made available to the public (whether in the United Kingdom or elsewhere) by written or oral description, by use or in any other way.

2(3) The state of the art in the case of an invention to which an application for a patent or a patent relates shall be taken also to comprise matter contained in an application for another patent which was published on or after the priority date of that invention, if the following conditions are satisfied, that is to say –

(a) that matter was contained in the application for that other patent both as filed and as published; and(b) the priority date of that matter is earlier than that of the invention.

39. The provisions in relation to inventive step are found in section 3 which states:

3. An invention shall be taken to involve an inventive step if it is not obvious to a person skilled in the art, having regard to any matter which forms part of the state of the art by virtue only of section 2(2) above (and disregarding section 2(3) above).

40. The Court of Appeal in Windsurfing¹ formulated a four-step approach for assessing whether an invention is obvious to a person skilled in the art. This approach was restated and elaborated upon by the Court of Appeal in Pozzoli². Here, Jacob LJ reformulated the Windsurfing approach as follows:

(1)(a) Identify the notional "person skilled in the art"
(1)(b) Identify the common general knowledge of that person;
(2) Identify the inventive concept of the claim in question or if that cannot be

¹ Windsurfing International Inc. v Tabur Marine (Great Britain) Ltd, [1985] RPC 59

² Pozzoli SPA v BDMO SA [2007] EWCA Civ 588

readily done, construe it;

(3) Identify what, if any, differences exist between the matter cited as forming part of the "state of the art" and the inventive concept of the claim or the claim as construed.

(4) Viewed without any knowledge of the alleged invention as claimed, do those differences constitute steps that would have been obvious to the person skilled in the art or do they require any degree of invention?

41. I will begin by considering the validity of the invention as defined by claim 1. Only if I find it to be invalid will I consider the dependent claims.

The prior art

- 42. GB2136947 and US 4685385 are by the same applicant and relate to air handling units for spray painting booths. US4685385, which was filed some years after GB2136947, repeats in its entirety the contents of GB2136947. The additional subject matter present in US 4685385 relates to an additional embodiment in which the personnel doors of the booth are repositioning to impart additional strength to the structure. This additional embodiment does not appear to add anything that materially impacts the relevance of the what is disclosed in GB2136947. Consequently, my assessment of the relevance of US4685385 to the novelty of the Patent will be the same as that for GB2136947. Going forward, for ease of reference, I shall simply refer to both documents as US4685385, this being the longer of the two documents.
- 43. US4685385 discloses a refinishing unit for the spraying of vehicles. The refinishing unit comprises a portable, free standing, spray booth having a portable, self-contained air handling module connected thereto.



44. Column 2 lines 9-14 and 20-23 state:

"The air handling module is in the form of an apparatus pod which is selfcontained and is connectable both to a spray booth....and to sources of supply including mains electricity and burner fuels such as gas or oil etc."

"The unit centres around a heat exchanger to which air is fed and which is arranged to heat up this air by the use of an oil or gas burner associated therewith."

45. Column 5 lines 1-10 adds:

"Since the two units are factory produced, assembly of the refinishing unit is a simple matter, the spray booth being merely unloaded onto a suitable site together with the air handling module. The air handling module is pushed up against the side of the booth and the various connections between the two units and between the exterior supplies and the air handling module, together with the compressed air supply to the booth, being made. Once the units have been tested for correct operation, the unit can be put immediately into use."

- 46. It is clear throughout the specification that the spray booth and the air handling unit are separate units which are moveable independently from one another.
- 47. Operation of the refinishing unit consists of two stages, a spray step and a curing step. During the spraying step the air handling unit functions to remove build-up of spray mist and to supply a constant supply of fresh air to the operator within the booth. During the curing step the air handling unit functions to supply air at a much higher temperature.

Novelty

48. In line with how claim 1 has been construed US4685385 does not discloses a monoblock suitable for loading onto a transporter and unloading from a transporter, said enclosure further comprising an air handling unit integral with said mono-block. Although the air handing unit does satisfy the requirement for providing two temperatures to the enclosure, the spray booth and the air handling unit are clearly separate entities and are referred to as such throughout the specification. Column 5 lines 60-64 discuss how the air handling apparatus can be relocated depending upon the orientation of the booth itself and lines 65-68 discuss connecting the air handing unit to other apparatus including permanent booths.

> "As will be appreciated, because the unit is provided with doors at both ends, the possible orientation of the booth can be such as to allow the apparatus pod to be mounted effectively on either side of the booth without the necessity of providing two sets of input connections. The air handling pod may be used separately to the booth so as to provide desired air flow and temperatures to other apparatus and may be used in connection with a permanent booth provided in a building if desired."

49. The air handling unit is not integral with the spray booth and can be moved independently therefrom and therefore this document can not dispute the novelty of

the invention defined by claim 1.

50. I am therefore of the opinion that claim 1 is novel with respect to US4685385 and consequently GB2136947 and therefore there is no reason for me to consider the dependent claims.

Inventive step: US4685385 and common general knowledge

- 51. The person skilled in the art has been previously defined as a designer or engineer of transportable vehicle enclosures which may be suitable for painting vehicles. The common general knowledge of that person would include the physical construction of the units themselves and the different ancillary equipment required e.g. air handling units, heaters etc and how these co-operate with each other. They would be well versed on the ways and means to relocate such units, including appropriate transportation and loading onto such transportation. Although not a paint specialist, they would be abreast of common spray-painting techniques and the properties of the paints that are generally used in the field. This would include an awareness of the appropriate environmental conditions for spray painting e.g. to account for clogged nozzles at low temperatures and that some paints require a curing step.
- 52. The inventive concept of claim 1 is a single standalone transportable unit having an integral air handling system which is capable of producing two temperatures within the enclosure, one suitable for spraying and one suitable for curing.
- 53. The difference between the inventive concept and the state of the art is that the air handling unit is integral with the spray booth and the unit is therefore transportable as a single unit.
- 54. The Observer has discussed how this is an obvious modification particularly since over the time that has elapsed between the prior art and the invention, air handling units having become smaller, lighter and easier to integrate. The Requester disputes this and I am minded to agree. It is not simply a case of saying such units could now potentially be more easily integrated into the spray booth. There has to be something that would motivate the person skilled in the art to do this and this motivation has to be apparent without knowledge of the invention.
- 55. US4685385 discloses an air handing unit which can be used independently of the booth to which it may be attached. It is not a simple apparatus. It is a combination of a heater generator, heat exchanger and two fans housed in a steel framework. The air handling unit is described as being an "individual piece of apparatus" which can be relocated and used independently. Although integrating the air handling unit within the booth would make the apparatus more easily transportable this would be to the detriment of its flexibility of use. If over time, as the Observer has suggested, such units have become smaller and easier to move, this would make the use of such standalone units even more flexible. Integrating the unit into the spray booth, with the adaptations it would require, would remove this flexibility. There would be no motivation to do this.
- 56. I therefore of the opinion that the invention as defined by claim 1 is inventive with respect to US4685385 in combination with common general knowledge and

consequently there is no need for me to consider the independent claims.

Inventive step: US4685385 and US5853215

- 57. As previously stated I will now consider the new prior art in the light of US5853215 which is a document that was considered previously during substantive examination of the Patent and which is listed on page 1 of the description as prior art.
- 58. US5853215 discloses a mobile spray-booth in the form of a towable trailer. The trailer (10) is equipped with an air handling unit (50) designed to ventilate the unit and infrared curing lights (64) to cure the paint on the automobile being spray-painted.



- 59. The air handling unit is integral with the spray booth and the trailer can be towed as a single piece onto the deck of a ship (a transporter) so therefore satisfies the requirement of being a single transportable unit. The air handling unit does not however alter the temperature of the air entering the unit and the heat required for curing is provided by the infrared lights located on the ceiling and walls of the booth.
- 60. This document therefore shows that it is known for air handling unit, in fact all the ancillary equipment required for spray-painting, to be provided with the spray booth and that the unit can be transported as a single entity. It differs from the inventive concept of claim 1 in that the air handling unit is not capable of producing two temperature levels within the enclosure, one suitable for spraying and one suitable for curing. This however is known from US4685385.
- 61. What would be the motivation for the person skilled in the art to replace the air handing unit of US5853215 with one that was capable of altering the temperature within the booth such as that disclosed in US4685385? Although an increase in temperature is required for the curing process to occur, the apparatus of US5853215 already has means for facilitating this, namely infrared lights. Further, it would not simply be a case of replacing the air handing unit with another capable of temperature generation and control. The workstation of US5853215 is a fully integrated unit which would require extensive alterations to include the new air

handling unit e.g. space would need to be created to include a heat exchanger, exhaust mechanism and fuel storage, not to mention the additional safety considerations that would be required for transporting flammable fuels. Also, taking into account that air handling units which included a heat exchanger were already known at the time this fully integrated unit was invented, would the person skilled in the art not considered this to be a step backwards? It is my opinion that they would, and they would have no motivation to make this adaptation.

62. I therefore of the opinion that the invention as defined by claim 1 is inventive with respect to US4685385 in combination with US5853215 and consequently there is no need for me to consider the dependant claims.

Opinion

- 63. It is my opinion that claim 1 of the Patent is novel in light of GB2136947 and US4685385.
- 64. I am also of the opinion that claim 1 of the Patent is inventive in light of what is disclosed in GB2136947 and US4685385.

Nicola Payne Examiner

NOTE

This opinion is not based on the outcome of fully litigated proceedings. Rather, it is based on whatever material the persons requesting the opinion and filing observations have chosen to put before the Office.