Intellectual Property Office

BL O/044/18

22 January 2018

PATENTS ACT 1977

APPLICANT	Martin-Baker Aircraft Company Limited
ISSUE	Whether patent application GB1611647.7 complies with sections 14(5)(c), 18(5) & 76
HEARING OFFICER	Ben Buchanan

DECISION

Introduction

1 This decision considers the issue of whether the invention claimed in patent application GB1611647.7 discloses additional matter not present in the earlier application GB1220742.9, upon which this application is based, as defined by section 76 of The Patents Act 1977. The decision will also consider the issues of whether the invention claimed in GB1611647.7 is supported by the description, as defined by section 14(5)(c) of The Act and whether the claimed invention in GB1611647.7 conflicts with the invention claimed in patent GB2495415 B, as defined in section 18(5) of The Act. There is also a request that, in the event that I am minded to refuse the application on the grounds of added matter, I consider an auxiliary request to amend claim 1.

2 Patent application GB1611647.7 was filed on 4 July 2016 in the name of Martin-Baker Aircraft Company, entitled “A headrest assembly” and claimed divisional status from GB1220742.9 also in the name of Martin-Baker Aircraft Company, being the national phase application of international patent application PCT/GB2011/051446 filed on 29 July 2011 entitled “A headrest assembly”. All the applications claim priority from two earlier applications; GB1012872.6 filed on 30 July 2010 also entitled “A headrest assembly” and US61/432877 filed on 14 January 2011.

3 In his first examination report dated 25 August 2016 the examiner indicated that this application could be treated as having been filed on 29 July 2011, the same date as the earlier application. He also identified the original claims as lacking inventive step by way of being a collocation of two separate integers and raised objections in respect of conflict and clarity but not, at the time, added matter or support. In response, amended claims were filed to address the lack of inventive step and other concerns. When re-examining the amended claims, the examiner raised objections to added matter, support and maintained conflict in his examination report of 15 November 2016. Several rounds of correspondence followed in which the examiner

and agent couldn’t reach agreement on these issues, culminating in a hearing being suggested and requested.

4 The application came before me at a hearing on 29 September 2017. The applicant was represented by Andy Harding and James Farrow of Forresters. Also attending were the examiner Ilya Gribanov, hearing assistant Nikki Dowell and an observer.

5 The compliance period for the application originally expired on 16 June 2017 and has been extended since, following requests for as-of-right and discretionary extensions under rule 108(2) & 108(3). It is currently set to expire on 16 February 2018. In the event that I allow the application to proceed, I would expect, if requested and if necessary, to exercise discretion to allow a further extension under rule 108(3).

The application

6 The application relates to a headrest assembly for an ejection seat (e.g. for an aircraft). It is stated in the application that initiation of the ejection procedure tends to cause an occupant's head to tilt downwards towards their chest and that as the ejection seat exits the cockpit and enters into the wind blast passing over the cockpit, this imparts a sudden force on the occupant's head toward the head rest, resulting in the head being suddenly, and often violently, pushed backwards into the headrest which can cause injuries to the occupant. Moreover, at the point of ejection, the occupant might be “out of position”, with their head to one side or the other of alignment with the seat, which gives rise to further risk of injury. At the hearing, Mr Harding explained that both problems may co-exist as a “compound position” which, although not described as such in the description, is alluded to on page 2 at lines 4-9. During the hearing, Mr Harding referred to addressing both problems as seeking to achieve placing the occupant in the “optimal position”.

7 To address the first problem, the application provides an inflatable head beam to move the headrest forward to provide a support for the occupant's head as the seat enters the windblast. The purpose of the head beam is not to push the occupant's head forward (which could cause injury), but rather to move the headrest forward to provide a support for the occupant's head as the ejection seat enters the windblast.

8 To address the second problem, the application provides a pair of inflatable side beams to move the occupant's head back into alignment with the ejection seat. To achieve this aim, embodiments of the invention provide side beams which are deployed through a capturing phase, during which the side beams are partially inflated such that they extend outwardly and upwardly from the support mounting and away from one another to surround the head of an occupant of the ejection seat; and a retention phase, during which the side beams are fully inflated into a deployed configuration such that they move downwardly and toward each other to capture the head of an occupant of the ejection seat.

9 To address the problem of a compound position, both the head beam and the side beams are deployed in combination.

The claims

10 The claims filed with the letter of 12 January 2017 are those under consideration. There is a single independent claim which reads:

> *1. An ejection seat headrest assembly comprising:*
> *a support mounting;*
> *a pair of inflatable side beams, each attached at one end to the support mounting and spaced apart from one another, the side beams being configured to be inflated from a stowed configuration to a deployed configuration in which the side beams extend from the support mounting; and*
> *a headrest connected to the support mounting by an inflatable head beam, the head beam configured to be inflated from a stowed configuration, in which the headrest is arranged substantially adjacent the support mounting, to a deployed configuration, causing the headrest to extend from the support mounting, wherein the initiation of inflation of the head beam occurs after the initiation of inflation of the side beams.*

11 The auxiliary request made in the skeleton arguments and at the hearing, to be considered in the event that I am minded to conclude the application adds matter by way of omission, seeks to introduce the "capturing" phase of side beam deployment into claim 1. As I understand it this would add the following to the definition of the pair of inflatable side beams to claim 1 above:

> *….the side beams configured to deploy through:*
> *a capturing phase, during which the side beams are partially inflated from the stowed configuration such that they extend outwardly and upwardly from the support mounting, relative to the plane of the support mounting, and away from one another to surround the head of an occupant of the ejection seat….*

12 Having regard to the question of conflict GB2495415 B includes the following claims:

> *1. An ejection seat headrest assembly comprising:*
> *a support mounting defining a substantially planar surface; and*
> *a pair of inflatable side beams, each attached at one end to the support mounting and spaced apart from one another,*
> *the side beams being configured to be inflated from a stowed configuration to a deployed configuration in which the side beams extend from the support mounting, to a deployed configuration, in which the side beams extend from the support mounting, the side beams configured to deploy through:*
> *a capturing phase, during which the side beams are partially inflated from the stowed configuration such that they extend outwardly and upwardly from the support mounting, relative to the plane of the support mounting, and away from one another to surround the head of an occupant of the ejection seat, and*
> *a retention phase, during which the side beams are fully inflated into a deployed configuration such that they have moved downwardly and toward each other, relative to the plane of the support mounting, to capture the head of an occupant of the ejection seat.*

2. A headrest assembly according to any preceding claim, further comprising a headrest connected to the support mounting by an inflatable head beam, the head beam configured to be inflated from a stowed configuration, in which the headrest is arranged substantially adjacent the support mounting, to a deployed configuration, causing the headrest to extend from the support mounting.
…
4. A headrest assembly according to any of claims 2 and 3, wherein the initiation of inflation of the head beam occurs after the initiation of inflation of the side beams.

The Law

13 The Examiner has raised objections under sections 14(5)(c), 18(5) and 76 of the Patents Act 1977. The relevant provisions of these sections of the Act are repeated below:

Section 14(5)
The claim or claims shall –
(a) define the matter for which the applicant seeks protection;
…
(c) be supported by the description; and
…

Section 18(5)
Where two or more applications for a patent for the same invention having the same priority date are filed by the same applicant or his successor in title, the comptroller may on that ground refuse to grant a patent in pursuance of more than one of the applications.

Section 76(1)
An application for a patent which -
(a) is made in respect of matter disclosed in an earlier application, or in the specification of a patent which has been granted, and
(b) discloses additional matter, that is, matter extending beyond that disclosed in the earlier application, as filed, or the application for the patent, as filed,
may be filed under section 8(3), 12 or 37(4) above, or as mentioned in section 15(9) above, but shall not be allowed to proceed unless it is amended so as to exclude the additional matter.

Section 76(2)
No amendment of an application for a patent shall be allowed under section 15A(6), 18(3) or 19(1) if it results in the application disclosing matter extending beyond that disclosed in the application as filed.

14 The examiner bases his assessment regarding added matter on the test set out in *Bonzel and Schneider (Europe) AG v Intervention Ltd* [1991] RPC 553; the approach, from *Richardson-Vicks Inc.'s Patent* [1995] RPC 568; and the *Houdaille*

Test[1], referred to in *Nokia Corporation v IPCOM GMBH & Co KG (No. 3)* [2013] RPC 5. The test set out in *Bonzel and Schneider v Intervention*[2] is as follows:

> *(1) to ascertain through the eyes of the skilled addressee what is disclosed, both explicitly and implicitly in the application;*
> *(2) to do the same in respect of the patent as granted;*
> *(3) to compare the two disclosures and decide whether any subject matter relevant to the invention has been added whether by deletion or addition. The comparison is strict in the sense that subject matter will be added unless such matter is clearly and unambiguously disclosed in the application either explicitly or implicitly.*

15 The *Houdaille Test*, referred to in *Nokia Corporation v IPCOM GMBH*[3] was summarised by Kitchen L J as:

> *"The skilled person must be able to recognise directly and unambiguously that*
> *(1) the [omitted] feature is not explained as essential in the original disclosure,*
> *(2) it is not, as such, indispensible for the function of the invention in light of the technical problem it serves to solve, and*
> *(3) the replacement or removal requires no real modification of other features to compensate for the change."*

16 Mr Harding advanced arguments regarding conflict based around the judgement in *Koninklijke Philips Electronics N.V. v Nintendo of Europe GmbH* [2014] EWHC 1959 (Pat) and the hearing officer's decision in *Optinose AS's Application* BL O/026/12.

Arguments and analysis – added matter

17 The examiner proposes that the earlier application discloses inflatable side beams that must deploy through a particular "capturing" phase which he says is essential to operation of the described invention. He asserts that claim 1 and the statement of invention of this application disclose additional matter by way of omission of this essential requirement. In reaching this finding, he notes that the application does not explicitly state that this feature is essential or that it is optional but puts forward that the skilled reader would regard it as implicitly essential.

18 In elaborating on this the examiner suggests that the apparatus defined by claim 1 of the present application does not meet the identified need "…to ensure that an occupant of an ejection seat is maintained in or near an optimal position throughout the ejection procedure" and that the side beams of current claim 1 are not limited to acting on the occupant at all. In his examination report dated 11 May 2017, he regards the third step of *Bonzel*[4] to mean that the question is whether "generic" (examiner's wording acknowledged in his report) side beams that the present application defines within claim 1, are clearly and unambiguously disclosed in the earlier application either explicitly or implicitly. Then when discussing step 2 of the *Houdaille Test* the examiner proposes that omission of the "capturing phase" in order to claim "generic" side beams would not appear to enable the identified need to be

[1] from T331/87 Houdaille/Removal of feature [1991] E.P.O.R. 194
[2] Bonzel and Schneider (Europe) AG v Intervention Ltd *[*1991] RPC 553
[3] Nokia Corporation v IPCOM GMBH & Co KG (No. 3) [2013] RPC 5
[4] Bonzel and Schneider (Europe) AG v Intervention Ltd [1991] RPC 553

met, since the “generic” side beams of claim 1 are not required to interact with the occupant at all.

19 The examiner further states that the earlier application does not disclose any alternatives that could enable said function to be carried out, other than side beams that partially inflate through a “capturing stage”. As such he proposes that the “capturing phase” feature is indispensable, and the second step of the *Houdaille Test* is not satisfied. He also states that the earlier application does not provide support for a single-stage inflation of side beams and that the added matter is in “side beams that do not have to deploy through a capturing phase”.

20 Mr Harding disagrees, maintaining that omission of the “capturing” phase from the definition of the invention in claim 1 does not add matter. He advanced that the application concerns two independent inventive elements, namely a pair of inflatable side beams and an inflatable head beam, which are combined in the invention defined by claim 1, drawing my attention to the separate problems identified in the background to the invention which these two elements address. Mr Harding then went on to draw my attention to the paragraph on page 4, lines 28 to 30 of the description (which is the same as at page 5, lines 1 to 3 of the earlier application) of the embodiments which states:

> *“The side beams 3 are configured to be inflated from a stowed configuration to a deployed configuration in which the side beams extend from the support panel.”*

21 That, he alleged, together with the stipulation on page 3 at lines 5 and 6 that the described embodiments are by way of non-limiting example only, supports his view that, whilst the preferred embodiment includes a capturing phase, the skilled reader would not regard this as being an essential part of the disclosure.

22 In my opinion, the skilled person would be familiar with the problems, outlined above, which are present when an occupant is “out of position”. They would have a working knowledge of ejection seat design including head rest assemblies and inflatable side beams. Therefore, when reading the application, the skilled person would understand that in the present context the side beams described and claimed would implicitly interact with the occupant when used to overcome the problem of an occupant being out of position. The only essential requirement of the deployment of the side beams is that they be inflated from a stowed configuration to a deployed configuration in which the side beams extend from the support panel. I consider that the skilled person would understand that the side beams of the application interact with an occupant upon deployment, and are provided in conjunction with the head beam of the invention in order to address the two problems of an occupant being out of position and the risk to the occupant upon existing the cockpit and entering the wind blast (i.e. in a compound position). The skilled reader would not, therefore, consider the capturing phase to be essential to the present invention, which is directed to the combined deployment of inflatable side and head beams.

23 I therefore agree with Mr Harding that the application provides for inflatable side beams and an inflatable head beam as separate integers which can be combined in an ejection seat to mitigate both problems in the same apparatus. It seems that this conclusion was also (initially at least) reached by the examiner in the original

examination report, when he found this combination to be a collocation, with both integers being separately known per se. However that is not the end of the matter.

24 Whilst the claims define an invention which encompasses arrangements with a pair of side beams deployed other than via the particular capturing phase of the earlier application, the omission does not amount to a disclosure of other deployment arrangements. Likewise, the fact that the earlier application was filed with claims which define the invention as requiring a pair of side beams deployed through the particular capturing phase, does not mean that such a feature is essential to any claim which could be fairly based on the description.

25 On balance, and having considered what the skilled person would understand when reading the application, I do not agree with the examiner's assertions that, without the specific capturing phase of deployment, the inflatable side beams would necessarily not meet the need "…to ensure that an occupant of an ejection seat is maintained in or near an optimal position throughout the ejection procedure". I am reassured in this conclusion by US6422512 which is cited in the first examination report and which provides for a pair of inflatable side members on an ejection seat headrest assembly (92, see figures 14-16) "…to direct the head to the centre of the headrest" without a specific capturing phase.

26 With reference to the test put forward in *Bonzel and Schneider v Intervention*[5] I find that the skilled reader would not explicitly or implicitly ascertain that the particular capturing phase was essential in view of the stipulation that the embodiments are non-limiting and the paragraph on page 4, lines 28 to 30 of the description which describes deployment but also omits the capturing phase.

27 For completeness I have also considered the *Houdaille Test*. As above, I find that the skilled reader would recognise from the paragraph on page 4 at lines 28 to 30 and the non-limiting nature of the embodiments that the specific capturing phase of the preferred embodiment is not essential. They would also recognise that the capturing phase is not indispensable for the function of the invention in light of the technical problem it serves to solve and that other deployment arrangements would also mitigate the problem of the occupant being out of position. Lastly it would be clear to the skilled reader that omission of the capturing phase does not require modification of the inflatable head beam to compensate for the change because they are discreet integers, inventively combined in the current claims by the sequence of their deployment.

28 In other words, claim 1 defines the relationship between the side beams and head beam as being deployed in a manner which requires that the initiation of inflation of the head beam occurs <u>after initiation of inflation</u> of the side beams. That is to say that the two integers are not entirely independent. This operation is provided to facilitate addressing the problem described in the hearing and set out above, described as the occupant being in a "compound position". This sequential initiation is independent of an (optional) capturing phase and does not alter my assessment.

[5] Bonzel and Schneider (Europe) AG v Intervention Ltd [1991] RPC 553

29 I therefore conclude that the omission of the particular capturing phase from claim 1 and the statement of invention does not add matter.

Arguments and analysis – support

30 In a similar vein the examiner asserts that the earlier application only "...provides sufficient support for the "capturing" phase to occur together with the "retention" phase…" and that therefore claims which omit the retention phase lack support.

31 Mr Harding disagreed proposing that the question of support is a drafting matter and since the statement of invention on page 2 is the same as claim 1 that this requirement is met. He then went on to question whether the examiner had intended to make his objection under section 14(3), which relates to sufficiency, whilst maintaining that even if that was the intention, the application nonetheless met the requirements of that section. On the latter point I am content that there is no question to answer regarding whether the requirements of section 14(3) are met.

32 Neither the examiner nor Mr Harding refers to any previous decisions in support of their conclusions. It is not clear to me that the requirement of section 14(5)(c) should be taken so narrowly as to only be a drafting matter. However, having concluded above that omitting reference to the "capturing" phase does not add matter it follows that omitting the "retention" phase does not lack support as required by section 14(5)(c) for the same reasons.

33 The inventive concept defined by the claims, in particular the feature of initiating inflation of the head beam after initiation of the side beams, is clearly supported by the application as filed.

Arguments and analysis – conflict (double patenting)

34 The examiner objects that claim 1 of this application is to the same invention as claims 1, 2 and 4 of the patent as they "appear to converge to the same scope when the claims are construed in light of respective accompanying descriptions". At least in part this conclusion is based upon his opinion that the "capturing" and "retention" phases of the patent are essential to the invention and should therefore be included in the claims of this application.

35 Mr Harding disagreed, arguing that there is no combination of claims of the present application and parent patent which are coterminous in their scope as none of the claims in this application refer to the capturing and/or retention phases. They propose that the facts of this application are on all fours with that in *Optinose*[6]*.* There, it is alleged, as currently, that the claims of the divisional application fell within the scope of the parent claims but were held to not lead to double patenting.

36 Furthermore, they argue that the two independent claims have different scope and, on that basis alone, should not be found to be double patenting, referring me to the judgement in *Koninklijke Philips Electronics N.V. v Nintendo of Europe GmbH*[7]. At the hearing I questioned Mr Harding regarding whether the judge's comments in *Koninklijke Philips Electronics N.V. v Nintendo of Europe GmbH* are confined to the

[6] Optinose AS's Application BL O/026/12

[7] Koninklijke Philips Electronics N.V. v Nintendo of Europe GmbH [2014] EWHC 1959 (Pat

consideration of whether post grant amendments are allowable, that being the question before the judge. He proposed that the judge's comments not be read so narrowly and that the same consideration apply in the present case.

37 Both this application and the parent patent are in the name of the present applicant and the earliest priority document included all the features claimed in both so the priority date is the same. Section 18(5) precludes grant of a patent when an application contains claims explicitly including all of the features of a granted patent and also claims that differ in wording but not in substance. Whether any overlap is allowable must be decided on the facts of the case with regard to the state of the art.

38 The claims of this application and that of the parent overlap because the invention defined in claims 1, 2 and 4 of the parent fall within the scope of claim 1 of this application. However the claims of this application do not define an invention which includes the "capturing" and "retention" phases of the patent and, as I conclude above, these are not essential. To be clear, I consider the claims of each of the parent and divisional applications, whilst overlapping in scope, to relate to two different inventions. This is consistent with *Arrow Electric Switches Ltd's Applications* [1944] 61 RPC 1 and The Comptroller's decision in *SeeReal Technologies SA* BL O/261/12.

39 The prior art cited by the examiner shows that side beams, inflated other than through the specific "capturing" and "retention" phases are known, as are head beams. In view of my findings that the "capturing" and "retention" phases of the patent are not described as essential and having regard to the prior art cited by the examiner I conclude that the degree of overlap between this application and the patent does not offend against section 18(5). The invention defined in this application and that in the parent are not in conflict.

Auxiliary request

40 In light of my conclusions above I will not consider the auxiliary request.

Conclusion

41 In conclusion I find that this application does not disclose additional matter not present in the earlier application upon which this application was based. The invention claimed is supported by the description and does not conflict with the invention claimed in patent GB2495415 B. The examiner has not indicated that any other matters are outstanding so I shall remit the application to the examiner for final checks and placing in order for grant.

Appeal

42 Any appeal must be lodged within 28 days after the date of this decision.

Ben Buchanan

Deputy Director, acting for the Comptroller