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**Datasheet for the decision  
of 12 October 2016**

**Case Number:** T 2123/11 - 3.4.01

**Application Number:** 06851704.4

**Publication Number:** 1938252

**IPC:** G06K19/00

**Language of the proceedings:** EN

**Title of invention:**

SYSTEM AND METHODS FOR TRACKING AIRCRAFT COMPONENTS

**Applicant:**

The Boeing Company

**Headword:**

**Relevant legal provisions:**

EPC 1973 Art. 56

**Keyword:**

Inventive step - (no) - mixture of technical and non-technical features

**Decisions cited:**

**Catchword:**



**Beschwerdekammern**  
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Case Number: T 2123/11 - 3.4.01

**D E C I S I O N**  
**of Technical Board of Appeal 3.4.01**  
**of 12 October 2016**

**Appellant:** The Boeing Company  
(Applicant) 100 North Riverside Plaza  
Chicago, IL 60606-1596 (US)

**Representative:** Boulton Wade Tennant  
Verulam Gardens  
70 Gray's Inn Road  
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**Decision under appeal:** Decision of the Examining Division of the  
European Patent Office posted on 29 March 2011  
refusing European patent application No.  
06851704.4 pursuant to Article 97(2) EPC.

**Composition of the Board:**

**Chairman** G. Assi  
**Members:** F. Neumann  
R. Winkelhofer

## Summary of Facts and Submissions

I. The appeal lies from the decision of the examining division refusing European patent application number 06 851 704.4. The application was refused because, starting from the disclosure of document D2 (WO-A-2004/013785), the subject-matter of the claims according to a single request underlying the decision lacked an inventive step.

II. With the statement setting out the grounds of appeal, the appellant requested that the decision of the examining division be set aside and that a patent be granted on the basis of claims 1 to 20 filed with the letter dated 17 February 2011 and enclosed again with the grounds of appeal.

The claims forming the basis of the sole request in the appeal procedure are therefore the same as those on which the contested decision was based.

III. The Board issued a summons to oral proceedings and a communication setting out the matters to be discussed at the oral proceedings. Amongst other observations, the preliminary opinion of the Board with respect to inventive step was presented in the communication.

IV. The appellant informed the Board that no-one would appear at the oral proceedings. Consequently, the oral proceedings were held in the absence of the appellant.

V. Claim 1 reads as follows:

*"An aircraft component identification and maintenance tracking system comprising:  
a plurality of aircraft components (12,14);*

*a plurality of radio frequency identification, RFID, tags (18, 20, 40), wherein each of said RFID tags is associated with a respective one of said aircraft components, said RFID tags comprising identification and maintenance data information specific to said aircraft component to which it is associated, wherein for an aircraft component that has been removed from an aircraft the maintenance data includes the condition of the component at the time the component was removed from the aircraft; and a transceiver (30) operatively configured to transmit an activation signal to each of said RFID tags, and further configured to receive information transmitted by each of said RFID tags, each said RFID tag configured to transmit at least one of identification data, configuration data, and maintenance data regarding said aircraft component with which said RFID tag is associated, said transceiver being arranged to consolidate the maintenance data for all the RFID tagged aircraft components based on data received from the plurality of RFID tags, thereby defining a configuration for an aircraft."*

Claims 2 to 20 are dependent claims.

- VI. The arguments of the appellant, insofar as they are relevant to the present decision, are set out below in the reasons for the decision.

### **Reasons for the Decision**

1. The appeal is admissible.
2. The invention

The invention concerns an aircraft component identification and maintenance tracking system.

A plurality of aircraft components are each provided with an RFID tag on which identification information and maintenance data specific to the respective component is stored. This data can consist of, for example, a description of the component, a serial number of the component, an installation date of the component, information relating to the maintenance history of the component, information relating to maintenance that needs to be performed on the component and maintenance instructions for the component. For those components which have been removed from the aircraft (for, e.g., overhaul or replacement), the maintenance data includes the "*condition*" of the component at the time of removal (e.g. the component was extremely hot).

A transceiver is provided to receive data transmitted by each of the tags. The transceiver is also arranged to consolidate the maintenance data for all of the RFID tagged components, thereby defining a "*configuration*" for an aircraft.

3. Inventive step - Article 56 EPC
- 3.1 D2 (WO-A-2004/013785) represents the closest prior art.
- 3.2 This document discloses a system in which aircraft components are provided with RFID tags which contain information relating to the operation, maintenance, repair, replacement and technical characteristics of the respective component to which they are attached (see the paragraph bridging pages 9 and 10).

3.3 It has not been contested that D2 discloses all features of claim 1 except the following:

a) for an aircraft component that has been removed from an aircraft, the maintenance data includes the condition of the component at the time the component was removed from the aircraft; and

b) the transceiver is arranged to consolidate the maintenance data for all the RFID tagged aircraft components based on data received from the plurality of RFID tags, thereby defining a configuration for an aircraft.

3.4 Having regard to feature a), the examining division argued in the contested decision that the nature of the information which is stored on the tag does not have a functional relationship to the technical features of the tag, the implication being that the type of stored data may not be considered to be a technical feature of the invention.

3.5 The appellant submitted that the nature of the data being stored on the tag did indeed imply a technical restriction to the tag since the available memory space must be such that the specified information may be stored. Moreover, it was argued that the memory of RFID tags at the priority date of the application was typically less than 512 bits and was thus too small to store more than the part number and a pointer to a file (see the grounds of appeal, page 2, paragraph 4).

3.6 The Board notes that the argument that typical prior art RFID memories were too small to record the condition of the component does not apply to the RFID tags of D2. Specifically, the tags of D2 store not only

an identifying ID, but also information relating to the operation, maintenance, repair, replacement and technical characteristics of the components to which they are attached (see the paragraph bridging pages 9 and 10; Figures 3 to 5).

Furthermore, the "*condition of the component*" is merely a data item with a specified cognitive content. The fact that the memory of the RFID tag contains this specific information is not reflected in any technical feature of the tag. As the examining division argued, the nature of the stored information has no functional relationship to the technical features of the tag.

3.7 Feature a) therefore does not provide any technical contribution to the prior art and, following established case law, may be disregarded when assessing inventive step (see Case law of the Boards of Appeal of the European Patent Office, 8th Edition 2016, I.D. 9.1.2).

3.8 Even if, *arguendo*, the recording of the condition of the component were to be considered to contribute somehow to the technical character of the the invention, it would not involve an inventive step.

Since it is known from D2 to store diverse maintenance-relevant data on the tags associated with the various components, the Board cannot recognise any inventive activity in supplementing the data stored in D2 with any additional information which could be relevant for the maintenance procedure. The condition of the component upon its removal would be one aspect which may have some significance in the subsequent maintenance thereof and so should also be recorded. To



store this information alongside the other maintenance-relevant information on the RFID tag would be obvious.

3.9 With respect to feature b), the appellant noted in the grounds of appeal that the contested decision contained no explanation of whether consolidation of the maintenance data on a transceiver was disclosed in any of the cited prior art documents or whether this was considered to belong to the common general knowledge of the skilled person. The appellant held that the cited prior art did not disclose the storage (and hence consolidation) of all of the maintenance data on the transceiver.

3.10 In this regard, the Board notes firstly that claim 1 does not define that the maintenance data is stored **on the transceiver**. Instead, claim 1 sets out that the transceiver is "*arranged to consolidate the maintenance data for all the RFID tagged aircraft components*". In the Board's understanding, this means simply that the transceiver is instrumental in the consolidation of maintenance data.

Secondly, the Board notes that D2 does in fact disclose the consolidation of maintenance data. The information stored on a tag is retrieved from the tag and recorded separately, for example in a central database system. The recorded information may include information from multiple tags (see the paragraph bridging pages 11 and 12).

Thus the transceiver of D2 is "*arranged to consolidate*" the maintenance data in as far as the retrieved data is relayed from the transceiver to the central database system. To the same extent that the claimed consolidation of maintenance data defines "a

*configuration for an aircraft"*, so too will the consolidation of the maintenance information in D2 result in such a "*configuration*".

D2 does not explicitly state that maintenance information from **all** tags is relayed to the central database. Nevertheless, in view of the statement in the paragraph bridging pages 11 and 12 that a back-up copy of the maintenance information is created by recording the retrieved information separately from the tag, it would be obvious to extend the explicit teaching of D2 to the maintenance data for the entirety of the RFID tagged aircraft components.

3.11 To conclude, the subject-matter of claim 1 does not involve an inventive step.

4. Article 113(1) EPC

The line of reasoning set out above to substantiate the lack of inventive step reflects the Board's position in the communication of 9 September 2016, to which the appellant did not present any comments.

## **Order**

### **For these reasons it is decided that:**

The appeal is dismissed.

The Registrar:

The Chairman:



R. Schumacher

G. Assi

Decision electronically authenticated