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**Datasheet for the decision
of 3 July 2025**

Case Number: T 0566/24 - 3.2.07

Application Number: 18706561.0

Publication Number: 3589420

IPC: B05B15/14, G05B23/02, B05B5/16,
B05B12/08, B05B12/00

Language of the proceedings: EN

Title of invention:

PREDICTIVE MAINTENANCE OF LIQUID PAINT SUPPLY SYSTEMS

Patent Proprietor:

Carlisle Fluid Technologies (UK) Ltd.

Opponents:

Timmer GmbH
Dürr Systems AG

Headword:

Relevant legal provisions:

RPBA 2020 Art. 12(2), 12(4), 12(6) sentence 2, 13(2)
EPC Art. 83, 123(2), 56

Keyword:

Primary object of appeal proceedings to review decision -
appeal case directed to a request on which decision was based
(yes)

Sufficiency of disclosure - (yes)

Amendments - extension beyond the content of the application
as filed (no) - allowable (yes)

Inventive step - (yes)

Late-filed evidence - should have been submitted in first-
instance proceedings (yes) - admitted (no)

Amendment after notification of the communication under
Article 15(1) RPBA - exceptional circumstances (no) - cogent
reasons (no) - taken into account (no)

Decisions cited:

T 0019/90, T 0182/89, T 1333/20, T 1320/23, T 0923/12,
T 1079/17, G 0001/24, G 0003/14

Catchword:



Beschwerdekammern

Boards of Appeal

Chambres de recours

Boards of Appeal of the
European Patent Office
Richard-Reitzner-Allee 8
85540 Haar
GERMANY
Tel. +49 (0)89 2399-0

Case Number: T 0566/24 - 3.2.07

D E C I S I O N
of Technical Board of Appeal 3.2.07
of 3 July 2025

Appellant 1:

(Opponent 1)

Timmer GmbH
Dieselstraße 37
48485 Neuenkirchen (DE)

Representative:

Dr. Träger & Strautmann PAe PartG mbB
Stüvestraße 2
49076 Osnabrück (DE)

Appellant 2:

(Opponent 2)

Dürr Systems AG
Carl-Benz-Strasse 34
74321 Bietigheim-Bissingen (DE)

Representative:

v. Bezold & Partner Patentanwälte - PartG mbB
Ridlerstraße 57
80339 München (DE)

Respondent:

(Patent Proprietor)

Carlisle Fluid Technologies (UK) Ltd.
Ringwood Road
Bournemouth, Dorset BH11 9LH (GB)

Representative:

Gill Jennings & Every LLP
The Broadgate Tower
20 Primrose Street
London EC2A 2ES (GB)

Decision under appeal:

**Interlocutory decision of the Opposition
Division of the European Patent Office posted on
16 February 2024 concerning maintenance of the
European Patent No. 3589420 in amended form.**

Composition of the Board:

Chairman	G. Patton
Members:	A. Cano Palmero
	E. Mille

Summary of Facts and Submissions

- I. Opponents 1 and 2 (appellants 1 and 2, respectively) lodged appeals within the prescribed period and in the prescribed form against the decision of the opposition division to maintain European patent No. 3 589 420 in amended form on the basis of the then auxiliary request 17.
- II. Two oppositions had been filed against the patent in its entirety on the grounds for opposition pursuant to Articles 100(a) (novelty and inventive step), 100(b) (sufficiency of disclosure) and 100(c) EPC (added subject-matter).
- III. In order to prepare the oral proceedings scheduled at the parties' requests, the board communicated its preliminary assessment of the case to the parties by means of a communication pursuant to Article 15(1) RPBA. Appellant 2 replied to this communication with substantive arguments with letters dated 16 May 2025 and 27 June 2025.
- IV. Oral proceedings before the board took place on 3 July 2025.

At the conclusion of the proceedings the decision was announced. Further details of the proceedings can be found in the minutes thereof.

- V. The final requests of the parties are as follows:
- for appellants 1 and 2

that the decision under appeal be set aside

and
that the patent be revoked;

for the patent proprietor (respondent)

that the appeals be dismissed, *i.e.* that the patent be maintained in the amended form found by the opposition division to meet the requirements of the EPC in accordance with auxiliary request 17.

VI. The relevant lines of arguments of the parties are dealt with in detail in the reasons for the decision.

VII. The following documents are referred to in the present decision:

D0: EP 1 789 202 B1;

D6: Dürr Systems GmbH, "Dürr: Intelligente Software EcoPRO 4.X verbessert den Workflow in der Automobillackierung", 2 November 2016, 2 pages;

D10: Bettina Neubauer, "Vorausschauende Wartung von Lackieranlagen", Journal für Oberflächentechnik, JOT 7 2016, pages 16-17;

D19: US 2005/0011967 A1;

D22: Dimitar P. Filev, "Real Time Diagnostics, Prognostics & Process Modeling - Industrial Perspective" presentation at 4th International Conference on Informatics in Control, Automation & Robotics. 9-12 May, 2007, Angers, France, 68 slides;

D42: "besser lackieren. Jahrbuch 2017", Vincentz Network, Hannover, 2016, Front page, index and pages 258 to 265;

D44: US 7,363,100 B2.

VIII. The following document was submitted by appellant 2 for the first time with its statement setting out the grounds of appeal and is referred to in the present decision:

D48: Oliver Schütze et al., "EVOLVE - A Bridge between Probability, Set Oriented Numerics, and Evolutionary Computation II", Springer-Verlag Berlin Heidelberg, 2013, pages 449 to 452.

IX. During the oral proceedings before the board, the respondent submitted the preface of document D48.

X. Independent claim 1 according to the maintained version of the patent, *i.e.* according to auxiliary request 17, reads as follows:

" A method of performing predictive maintenance on equipment used for delivering liquid paint in a paint finishing facility, the method comprising:

identifying (701) a set of components (303) of the equipment and associated maintenance requirements;

for each of the components (303), providing (702) a set of operating parameters (401, 402, 403, 404) that affect useful service life of the component (303), the operating parameters comprising an abrasive factor configurable to account for the abrasiveness of the liquid paint being pumped;

for each component providing (703) an algorithm relating the operating parameters (401, 402, 403, 404) to a remaining time by when a maintenance operation on the component is to be performed;

monitoring (704) each of the operating parameters (401, 402, 403, 404) during operation of the paint finishing facility;

for each component, applying (707) the algorithm

with the monitored operating parameters (401, 402, 403, 404) to calculate the remaining time for the component (303);

for each component (303) providing (709) to a maintenance operative an alert indication (301) relating to the remaining time for the component (303); and further comprising the step of interfacing with job queue data in order to predict future operating parameters (401, 402, 403, 404) of each component (303)."

XI. Claim 6 according to the maintained version of the patent, *i.e.* according to auxiliary request 17, reads as follows:

" The method of claim 5 further comprising the step of; downloading (803) from the server a second set of data derived from both the first set of data, and, data uploaded to the server using a plurality of other instances of the method corresponding to the method of claim 5."

XII. Claim 8 according to the maintained version of the patent, *i.e.* according to auxiliary request 17, reads as follows:

"The method of claims 6 or 7 further comprising the step of processing (802) the data that has been uploaded to the server (602) in order to determine an optimal set of operating parameters for configuring components (303) in order to increase the remaining time for components (303)."

XIII. Independent claim 9 according to the maintained version of the patent, *i.e.* according to auxiliary request 17, reads as follows:

" A paint finishing system (603, 604, 605) comprising:

equipment used for the delivery of liquid paint, including components (303) having associated maintenance requirements;

monitoring devices configured to monitor operating parameters (401, 402, 403, 404) that affect useful service life of the components (303), the operating parameters comprising an abrasive factor configurable to account for the abrasiveness of the liquid paint being pumped;

at least one controller (26) having a memory (430) and a processor,

and an interface with job queue data stored on a hard drive of a computing device,

wherein the memory (430) stores, for each component (303), the set of operating parameters (401, 402, 403, 404) that affect useful service life of the component (303), and, an algorithm (410) relating the operating parameters (401, 402, 403, 404) to a remaining time by when a maintenance operation on the component (303) is to be performed, and

wherein the processor is programmed, for each component (303), to apply the algorithm (410) with the monitored operating parameters and to interface with the job queue data (401, 402, 403, 404) to calculate the remaining time for the component (303) and to provide an alert indication relating to the remaining time (420) for the component (303)."

Reasons for the Decision

1. *Admittance of auxiliary request 17*

1.1 Auxiliary request 17 was filed during the oral proceedings before the opposition division as a modified version of the then auxiliary request 14. The appellants requested during the oral proceedings before the opposition division that this auxiliary request not be admitted as it was late-filed and not *prima facie* allowable. The opposition division however decided to admit this request as it was an attempt to overcome an objection under Article 84 EPC raised during the oral proceedings against claim 9 of auxiliary request 14.

1.2 Appellant 1 requested that auxiliary request 17 not be admitted. In particular, appellant 1 argued that auxiliary request 14, on which auxiliary request 17 was based, was only filed in a complete manner (*i.e.* including an adapted description) on 17 November 2023, which was one day after the expiry of the time limit set under Rule 116(2) EPC, after the opposition division allegedly held a phone conversation with the respondent pointing out the lack of labelling of the amended descriptions according to the previously filed auxiliary requests. This phone call with the respondent constituted an abuse of proceedings from the respondent as well as a violation of the duty of neutrality of the opposition division. Appellant 2 further argued that this phone call was not needed, since the opposition division had already indicated in its preliminary opinion dated 22 March 2023 the necessity of providing an adapted description in conformity with the amended set of claims.

- 1.2.1 In summary, according to the appellants, auxiliary request 14 with its corresponding amended description could only be considered as being late-filed, so that auxiliary request 17, which was an attempt to resolve the issues of the erroneously admitted auxiliary request 14, should also not have been admitted.
- 1.3 The board disagrees for the following reasons.
 - 1.3.1 It is uncontested that **the set of claims** according to auxiliary request 14 was filed in due time on 16 November 2023 with respect to the limit date which had been set by the opposition division with its communication dated 22 March 2023 according to Rule 116 EPC.
 - 1.3.2 The board does not agree with appellant 1 that the filing of an amended description in accordance with an amended set of claims is needed at the time of filing the set of claims. As correctly indicated by the respondent, it is rather common practice, if not specifically ordered otherwise, that a patent proprietor or applicant postpones the submission of an adapted description until one of its requests, in the form of a set of claims defining the matter for which protection is sought, is found admissible and allowable by the competent administrative department or by the Board of Appeal. Only when an allowable set of claims is available, is the adaptation of the description and its examination on the requirements of the EPC carried out with all parties involved in a subsequent final stage. Although this final step is far from being a formal matter and may give rise to various objections, it is always conditional upon the existence of an allowable set of claims. The opposition division's invitation to file amended description pages made with

the preliminary opinion dated 22 March 2023, point 15, is not seen by the board as an order to do so in the written procedure, but rather an indication for the respondent that in the case of its absence during the oral proceedings before the opposition division, the lack of an adapted description could result in the revocation of the patent, possibly for lack of compliance with Article 84 EPC. This applies even in the present case where the opposition division stated that *"adapted descriptions for all of the main request and the auxiliary requests need to be submitted before the time limit set out in the invitation for oral proceedings"* in view of the above mentioned common practice and the corresponding expectations of the parties involved.

- 1.3.3 In this light, the board does not consider that the alleged phone call of the opposition division with the respondent constituted an abuse of proceedings from the respondent or a substantial breach of the opposition division's neutrality obligation. It is further noted that, although not appearing from the file as pointed out by appellant 1, the phone call related to formal issues with respect to the adapted description (lack of labelling of the amended descriptions), which are dealt with by formality officers, not by the opposition division.
- 1.3.4 Therefore, in the present case, the set of claims according to auxiliary request 14 was correctly considered as being filed in due time and therefore correctly admitted, discussed and decided upon during opposition proceedings (point II.33 of the impugned decision).

1.4 Independently of the circumstances of the admittance of auxiliary request 14 which resulted in auxiliary request 17 being admitted by the opposition division, **the board** is of the view that it **has no discretion to not admit the maintained version** of the patent in suit (according to auxiliary request 17) into the appeal proceedings, for the following reasons.

1.4.1 Under Article 12(2) RPBA, *"a party's appeal case shall be directed to the requests, facts, objections, arguments and evidence on which the decision under appeal was based"*. Furthermore, Article 12(4) RPBA states that any part of a party's appeal case which does not meet the requirements in Article 12(2) RPBA is to be regarded as an amendment unless the party demonstrates that this part was admissibly raised and maintained in the proceedings leading to the decision under appeal.

1.4.2 In the present case, the decision under appeal is based on auxiliary request 17. Indeed, the opposition division not only admitted this request into the opposition proceedings, but also found that it met the requirements of the EPC.

1.4.3 Therefore, in accordance with Article 12(4) RPBA, auxiliary request 17 is not to be regarded as an amendment to the parties' respective appeal cases. Since it is part of the appeal proceedings, the board has no discretion not to admit this request.

2. *Sufficiency of disclosure, Article 83 EPC*

2.1 Both appellants contested the finding of the opposition division of point II.20.2.1 of the reasons for the decision under appeal, that the invention according to

claim 1 of the patent as granted (and also according to auxiliary request 17) was sufficiently disclosed.

2.2 The appellants firstly argued that there was no indication in the patent in suit regarding how the claimed "algorithm" was to be designed for all possible components covered by the invention. In particular, the description disclosed just one embodiment based on equation 1 of an algorithm suitable for a bearing, but there was no guidance on how to put an algorithm into practice for the rest of the components of figure 3, especially no guidance was given as to which parameters were to be taken into account for a specific component. The invention could not be carried out over the whole scope of the claim.

2.2.1 The board disagrees for the following reasons. According to the jurisprudence of the Boards of Appeal, an objection of lack of disclosure presupposes that there are serious doubts substantiated by verifiable facts. **The burden of proof is upon the opponents, presently the appellants**, to establish on the balance of probabilities that a person skilled in the art, using his common general knowledge, would be unable to carry out the invention (see the Case Law of the Boards of Appeal of the European Patent Office, 11th Edition, 2025, II.C.9.1, first two paragraphs, in particular in relation to T 19/90 and T 182/89).

2.2.2 In the case at hand, the board concurs with the opposition division that the term "algorithm" is sufficiently described in paragraph [0011] of the patent in suit as an equation or set of equations by which the remaining time for a component is calculated. Therefore, at least one way for carrying out the invention is provided by the contested patent. The

board is thus convinced that in the present case there is not weak presumption for sufficiency that could justify a shift in the burden of proof to the respondent.

- 2.2.3 Even if, for the sake of the argument, a weak presumption for sufficiency for carrying out the algorithm could be present as argued by the appellants, the board notes that the burden of proof **does not automatically shift to the patent proprietor, presently the respondent**, but rather the opponents, presently the appellants, still bear the burden to argue in a plausible manner that the common general knowledge would not enable the skilled person to carry out the invention (see CLB, *supra*, II.C.9.2 and decisions T 1333/20, reasons 1.2.2 and T 1320/23, reasons 2.5). This is, in the board's view, not the case here. Indeed, for the rest of the components, the algorithm could be also implemented in the form of look-up tables or other accessible data storage/machining methods, according to paragraph [0051] of the contested patent. The board concurs with the respondent that the description provides at several instances details concerning the algorithm (see equation on paragraphs [0055] and [0056] and also paragraphs [0058] to [0060] and [0067] to [0069]). With regard to the rest of parameters which are allegedly not discussed in detail in the description, the board notes that it has not been demonstrated by the appellants that there are serious doubts that the skilled person would not be able to implement the claimed algorithm to determine the remaining time based on such parameters. The board thus concludes that, in any case, the appellants have not convincingly demonstrated, with plausible arguments, that the common general knowledge would not

enable the skilled person to carry out the algorithm as claimed over the whole breadth of the claim.

- 2.3 Secondly, appellant 2 contested the finding of the opposition division of point II.20.2.2 of the reasons for the decision under appeal and argued that the skilled person could not carry out the technical teaching of claim 6 without being inventive, since there was no explanation in the description, in particular not in paragraph [0023], on how the word "instances" is to be understood.
- 2.3.1 The board disagrees and rather concurs with the respondent that the skilled person would understand that the term "instances" in claim 6 refers to different steps of uploading data according to claim 5, so that there is no need for a detailed indication in the description in order to carry out the method of claim 6 of auxiliary request 17.
- 2.4 Lastly, appellant 2 contested the finding of the opposition division of point II.20.2.3 of the reasons for the decision under appeal. In particular, appellant 2 argued, making reference to G 1/24, that the feature "optimal set" according to claim 8 of auxiliary request 17 needed to be interpreted in the light of the description, which detailed that the "optimal set" of operating parameters was to be determined in order to increase the remaining time for components (e.g. paragraph [0073]). The determination of such an "optimal set" of operating parameters as defined in claim 8 could only be seen as a *desideratum* and that there was neither an embodiment nor an indication in the patent in suit as a whole on how to determine this optimal set for a predictive, and not planned maintenance. Therefore this determination could not be

carried out by the skilled person. In its argumentation, appellant 2 referred also to decisions T 1079/17 and T 923/12.

2.4.1 The board again disagrees and concurs with the opposition division and with the respondent that appellant 2's objection is rather directed to a clarity issue in the terms of a result to be achieved. Already for this reason the objection cannot convince and, since claim 8 was already in the set of claims of the patent as granted, it cannot be examined for clarity in view of G 3/14. In addition, contrary to decisions T 1079/17 and T 923/12, the board is of the view that in the present case the skilled person is not faced with an undue burden to select an "optimal set" of operating parameters that could result in an increase of the remaining time for components based on the uploaded data as required by the claim and the description and that they could rather select these "optimal set" of parameters with the help of common general knowledge. In addition, there are at least no serious doubts provided by appellant 2 that the skilled person would not be able to determine such an "optimal set" of parameters for that purpose.

2.4.2 It is emphasised that at the oral proceedings before the board the appellants argued when discussing the objection of insufficiency of disclosure based on the "optimal set" of operating parameters of claim 8, that the claims as a whole and the algorithm of claim 1 in particular were directed to a predictive maintenance, *i.e.* to predict the time to failure of the components. Although this restrictive interpretation of the claims could be plausible, the board rather follows the more general interpretation provided by the respondent at the oral proceedings that the claimed method aims at

providing a remaining time by when a maintenance operation on the component is to be performed, as defined in claim 1, as nothing in the patent specification or the claims limits the claims to the appellants' interpretation. As argued by the respondent, this more general interpretation does not imply that claim 1 relates to a mere preventive maintenance as argued by the appellants, i.e. to follow the suppliers of the components as to when to change said components preventively, since claim 1 comprises an algorithm which relates the operating parameters to a remaining time for a maintenance operation, calculating thereby, predictively, the remaining time - however, not necessarily the remaining lifetime - for the components.

- 2.5 In sum, the board is of the view that the appellants have not convincingly demonstrated the incorrectness of the decision under appeal, that the patent as maintained by the opposition division is sufficiently disclosed.

3. *Added subject-matter, Art 123(2) EPC*

- 3.1 Appellant 2 argued that, contrary to the finding of the opposition division of point II.32.3.1 of the reasons for the decision under appeal, the feature "in order to predict future operating parameters of each component" in claim 1 of auxiliary request 17 instead of "in order to predict future operating parameters of a component" in original and granted claim 4 resulted in an extension of subject-matter.

- 3.1.1 The board disagrees and rather concurs with the opposition division that the final feature in claim 1 of auxiliary request 17 is based on original claim 10

with the further restriction based on the original description from page 4, line 34 ("for each component") to page 5, line 1.

3.2 Both appellants further argued that in claim 9 of auxiliary request 17 the replacement of the feature "a hard drive of the computing device" as in original claim 22 with the feature "a hard drive of a computing device" resulted in an infringement of Article 123(2) EPC. In particular, the appellants indicated that the original application only specifically disclosed that the hard drive was located on the computer (the "computing device") which was connected via the "data link" as defined in original claim 21 to which original claim 22 referred. However, claim 9 according to auxiliary request 17 also included a variant in which the hard disc could be located in any computer, thereby extending beyond the original disclosure. The appellants further argued that a combination of claims 21 and 22 would result in an ambiguous claim, so that they should not be combined.

3.2.1 The board is not persuaded by the appellants' arguments. As correctly indicated by the respondent, original claim 22 was dependent on original claims 15 and 21, the latter disclosing "a" computing device, so that the combination of these three claims could only mean that "the" computing device of original claim 22 is the previously defined computing device of original claim 21 ("a" computing device). In any case, the board also shares the respondent's view that original claim 22 does not exclude a direct combination with original claim 15 forming basis for claim 9 of auxiliary request 17. In that case, "the" computing device of claim 22 would not be previously defined, so that the resulting clear claim can only refer to "a" computing device when

cited for the first time. In sum, the board concludes that the skilled person is not presented with a new technical teaching by the feature "a" computing device.

3.3 The appellants argued that while claim 9 of auxiliary request 17 defined "job queue data stored on a hard drive", original claim 22 and page 7, lines 26 to 28 of the original description, defined "job schedule data stored on a hard drive". The terms "queue" and "schedule" could not be seen as synonyms, which was also confirmed when the description was adapted to the set of claims according to auxiliary request 17 during opposition proceedings. According to appellant 2, queue data and schedule data were presented in paragraph [0021] of the patent in suit (corresponding to page 4, line 34 to page 5, line 12 of the original description) as mutually exclusive alternatives. In particular, queue data was to be seen as data relating to waiting list that worked under the first-in-first out (FIFO) principle while schedule data was more complex. Furthermore, it was sufficient that queue data is stored in a FIFO drive, so that it was not necessary to store queue data on a hard drive.

3.3.1 The board disagrees and rather concurs with the respondent that, in the context of the interface, both job queue data and job schedule data, which are not regarded as synonyms, were however disclosed interchangeably in the original application (see for instance original page 4, lines 34 and 35). As correctly indicated by the respondent, there is no indication in the original application of how specifically the job queue data is to be stored. However, since in the original application both queue and schedule data are used interchangeably and always handled the same way and since the job schedule data is

disclosed as being stored on a hard drive, the skilled person would immediately and directly derive that this is also inevitably the case for the job queue data. There is no indication in the application as originally filed that would make the skilled person derive or even consider a FIFO-drive as argued by the appellants. Therefore, the board concludes that the skilled person is not presented with any new technical teaching by the introduction of the feature "job queue data stored on a hard drive".

3.4 In summary, the board concludes that the appellants have not convincingly demonstrated the incorrectness of the decision under appeal, that the patent as maintained by the opposition division meets the requirements of Article 123(2) EPC.

4. *Admittance of document D48 and of the preface of document D48, Articles 12(6) and 13(2) RPBA*

4.1 Appellant 2 argued that document D48 was to be considered as depicting the common general knowledge of the skilled person and taught in chapter 3 the claimed "job scheduling" using the example of a paint plant for trucks. The remaining time of the components in the individual paint booths could be calculated in view of the "job queue" data.

4.2 The respondent contested that D48 depicted the common general knowledge of the skilled person. During the oral proceedings before the board, the respondent filed the preface of document D48 in order to support its argumentation. The board notes that the submission of this evidence for the first time after the notification of the board's communication under Article 15(1) RPBA constitutes an amendment to the respondent's appeal

case. According to Article 13(2) RPBA, any amendment to a party's appeal case made after notification of a board's communication shall, in principle, not be taken into account unless there are exceptional circumstances, which have been justified with cogent reasons by the party concerned. The board is of the view that the preface of D48 could and should have been submitted by the respondent with its reply to the appellants' statements setting out the grounds of appeal. The mere alleged fact that this preface could support the respondent's arguments cannot be seen as cogent reasons justifying exceptional circumstances for its late filing. Therefore, the preface of D48 submitted by the respondent during the oral proceedings before the board is not taken into account under Article 13(2) RPBA.

- 4.3 In any case, the board does not agree with appellant 2 and rather concurs with the respondent that D48 does not depict the common general knowledge of the skilled person, irrespective of the content of the preface of D48. Indeed, chapter 3 of document D48 relates to a specific paint line in a real GM factory, with specific operation rules (see "Constraints in Morley's Production System" on page 451).

Its admittance into the appeal proceedings is subject to Article 12(6), second sentence, RPBA as it was filed for the first time in the appeal proceedings. The board is convinced that document D48 could and should have been submitted during opposition proceedings, especially taking into account that the method step relating to the "job queue" was already present in at least claim 4 as granted and also in auxiliary requests filed with the respondent's letter dated 16 November 2023 (see for instance claim 9 of auxiliary

request 13). Since D48 is not considered common general knowledge as discussed above the board cannot find any circumstances of the appeal case that would justify its admittance.

In consequence, document D48 is not admitted into the appeal proceedings under Article 12(6), second sentence, RPBA.

5. *Inventive step starting from document D19 as closest prior art, Article 56 EPC*

5.1 Distinguishing features

5.1.1 The appellants contested the finding of the opposition division of point 34.3 of the reasons for the decision under appeal, that the subject-matter of claim 1 differed from the known method of D19 in the step of interfacing with a job queue data in order to predict future operating parameters of each component (hereafter "step b)" as also used by the parties). In particular, the appellants argued that according to paragraph [0042] of D19, the data collected might be used to provide predictive maintenance. In paragraph [0048], D19 indicated that the inputs, which are in no way limited due to the wording "and so on" (eighth line of the right-hand column of page 6), could affect the time period allowed before a maintenance alert was issued. Making reference to G 1/24, the appellants argued that the feature "job queue" was to be understood as being merely a list of single jobs in a particular order and that this was anticipated by paragraph [0043] and figure 5B of D19, which disclosed that the different positions of the "car parts" along the painting line were determined.

5.1.2 The board is not persuaded by the appellants' arguments. Indeed, the board finds it clear from claim 1 and from the description that the job queue data is used to predict future operating parameters. As correctly indicated by the respondent, the different positions of the car parts as disclosed in paragraph [0043] and the inputs of paragraph [0048] of D19 are used for the monitoring of current operating parameters rather than for the prediction of future operating parameters. In other words, the method of D19 is reactive and not predictive. In sum, there is no indication that the collected data of D19 is related to future jobs or operations, let alone any disclosure of this data being used to predict future operating parameters.

5.1.3 Therefore, the board concludes that the subject-matter of claim 1 of the main request (auxiliary request 17 in opposition proceedings) differs at least from the known method of D19 in step b).

5.2 Technical effect and objective problem

Appellant 2 argued that the objective technical problem could not be based on paragraph [0060] of the patent in suit, since in that paragraph the job queue data was presented as an alternative for that alleged purpose. The board disagrees and concurs with the respondent that paragraph [0060] of the patent in suit makes clear that the job queue data provides an indication as to how much load particular equipment will be placed under during a future period of time. Starting from D19 as closest prior art, the problem to be solved by distinguishing feature "step b)" can therefore be seen as performing a more efficient maintenance of the components.

5.3 Obviousness in view of the teaching of D0

5.3.1 Both appellants argued that step b) was taught by document D0 in paragraph [0017], explicitly indicating that a "job queue" delivered great savings with regards to paint wear energy usage and general pump component wear. According to appellant 1, the skilled person would understand that this data could be used for future operations to, for example, reduce pump wear. The skilled person, starting from D19 as closest prior art and wishing to reduce pump wear would apply the teaching of D0 thereby arriving at the subject-matter of claim 1 of auxiliary request 17 in an obvious manner. Appellant 2 argued that it was implicit from D0 that the job queue data was used for future operating parameter such as, for example, selecting and planning different colours depending on the customer needs. Starting from D19, the skilled person would consider a "job queue" data such as in D0 in order to predict future operating parameters and/or to calculate the remaining component's time.

5.3.2 The board disagrees with the appellants and rather concurs with the opposition division's finding of point II.34.3 of the reasons for the decision under appeal that when considering the teaching of D0, the skilled person would rather focus on adjusting the pressurizing or depressurizing of the circulating system in view of the "job queue" data, but not use this data in order to predict future operating parameters of each component, as claimed. As in D19, D0 deals with a reactive method rather than with a predictive method. Therefore, in view of the objective technical problem, the skilled person would not turn to the solution taught by D0.

- 5.4 Obviousness in view of D19 alone or in view of the common general knowledge as allegedly exemplified by D48
 - 5.4.1 Document D48 is not seen by the board as common general knowledge and is not admitted into the appeal proceedings (see point 4.3 above). As a result the combination of its teaching with D19 does not need to be addressed.
 - 5.4.2 The board considers that the skilled person would find no incentive in their common general knowledge to transform the reactive method of D19 into a predictive one.
- 6. *Inventive step starting from any of documents D10, D22, D44, D6 or D42 as closest prior art, Article 56 EPC*
 - 6.1 Appellant 2 argued in its written submissions that the subject-matter of claim 1 of auxiliary request 17 was obvious starting from any of documents D10, D22, D44, D6 or D42 as closest prior art. The following reasoning was already communicated to the parties with the preliminary opinion with the communication under Article 15(1) RPBA and this was not disputed by the appellants. After reviewing all relevant circumstances of the case, the board maintains its preliminary opinion as follows.
 - 6.2 With regard to documents D10, D22, D6 and D42, appellant 2 acknowledged that step b) is a distinguishing feature.
 - 6.3 It was not disputed by the appellants that document D44 contained the same teaching as document D19 discussed in point 5.1 above. For the same reasons as for

document D19, the board concludes that document D44 also fails to anticipate step b).

- 6.4 As correctly found by the opposition division, the board concurs that the step of interfacing with job queue data in order to predict future operating parameters of each component (step b)) is neither disclosed nor suggested by any of documents D10, D22, D6, D42, D44, D0 or D19 alone or in combination. Therefore, the skilled person would only arrive at subject-matter of claim 1 by exercising an inventive skill, for the same reasons as when starting from document D19 (see point 5. above).

7. *Conclusions on inventive step*

- 7.1 In sum, the board concludes from points 5. and 6. above that the appellants have not convincingly demonstrated the incorrectness of the decision under appeal, that subject-matter of claim 1 of auxiliary request 17 meets the requirements of inventive step under Article 56 EPC.

- 7.2 It was common ground that the same considerations apply *mutatis mutandis* to the subject-matter of claim 9, which is therefore for the same reasons also considered inventive.

8. *Conclusions*

In view of the above considerations, the board concludes that the appellants have not convincingly demonstrated the incorrectness of the decision under appeal, that the patent according to auxiliary request 17 meets the requirements of the EPC. In consequence, the appellants' appeals are to be dismissed.

Order

For these reasons it is decided that:

The appeals are dismissed.

The Registrar:

The Chairman:



G. Nachtigall

G. Patton

Decision electronically authenticated