Internal distribution code:

(A) [-] Publication in OJ
(B) [-] To Chairmen and Members
(C) [-] To Chairmen
(D) [X] No distribution

Datasheet for the decision of 13 October 2014

Case Number: T 0573/13 - 3.2.07

Application Number: 96912174.8

Publication Number: 0833694

IPC: B05B13/02, B05B12/14, B05B15/08

Language of the proceedings: EN

Title of invention:
A PAINTING ROBOT WITH A PAINT SUPPLY SYSTEM

Patent Proprietor:
ABB A/S

Opponent:
Dürr Systems GmbH

Headword:

Relevant legal provisions:
EPC Art. 84, 123(2)
RPBA Art. 13(1), 13(3)

Keyword:
Late-filed main and auxiliary requests - admitted (no)

Decisions cited:
T 1055/92

Catchword:

Europäisches Patentamt
European Patent Office
Office européen des brevets

Beschwerdekammern
Boards of Appeal
Chambres de recours

European Patent Office
D-80298 MUNICH
GERMANY
Tel. +49 (0) 89 2399-0
Fax +49 (0) 89 2399-4465

Case Number: T 0573/13 - 3.2.07

D E C I S I O N
of Technical Board of Appeal 3.2.07
of 13 October 2014

Appellant: (Patent Proprietor)	ABB A/S Bergerveien 12 1396 Billingstad (NO)
Representative:	Kock, Ina ABB AG GF-IP Wallstadter Straße 59 68526 Ladenburg (DE)
Respondent: (Opponent)	Dürr Systems GmbH Otto-Dürr-Strasse 9 70435 Stuttgart (DE)
Representative:	Heusler, Wolfgang v. Bezold & Partner Patentanwälte Akademiestrasse 7 80799 München (DE)
Decision under appeal:	**Decision of the Opposition Division of the European Patent Office posted on 5 February 2013 revoking European patent No. 0833694 pursuant to Article 101(3)(b) EPC.**

Composition of the Board:

Chairman	I. Beckedorf
Members:	G. Patton
	V. Bevilacqua
	H. Hahn
	E. Kossonakou

Summary of Facts and Submissions

I. The appellant (patent proprietor) lodged an appeal against the decision of the Opposition Division to revoke European patent No. 0 833 694.

The opposition had been filed against the patent as a whole and was based on Article 100(a) EPC (lack of novelty and lack of inventive step).

The Opposition Division revoked the patent on the ground of lack of inventive step of the subject-matter of claims 1 of the then main and auxiliary requests.

II. With the statement of grounds of appeal the appellant requested that the impugned decision be set aside and the patent be maintained on the basis of a main request, corresponding to the main request underlying the impugned decision, or of one of the auxiliary requests A to D and, subsidiarily, that oral proceedings be held.

The respondent (opponent) requested that the appeal be dismissed and, subsidiarily, that oral proceedings be held.

III. The Board provided the parties with its preliminary non-binding opinion annexed to the summons to oral proceedings that the subject-matter of claim 1 of the main request could be regarded as lacking inventive step and that the auxiliary requests A to D did not appear to fulfil the requirements of Articles 83, 84 and/or 123(2) EPC.

In reaction, the appellant filed with its letter dated 9 September 2014 a new main request and new auxiliary requests A to E, in replacement of all former requests.

Meanwhile, with letter dated 29 July 2014 the appellant notified the Board of a merger leading to a change of its legal form and its business name and requested that the resulting new legal entity (ABB A/S) be registered as appellant. The corresponding changes in the Register of European Patents had been requested.

Oral proceedings took place on 13 October 2014. Concerning the course of the oral proceedings and the issues discussed, reference is made to the minutes of the oral proceedings. It is noted that the respondent's objection to the admissibility of the appeal was withdrawn at the oral proceedings.

The present decision was announced at the end of the oral proceedings.

IV. The appellant requests that the decision under appeal be set aside and that the patent be maintained in amended form on the basis of one of the sets of claims filed as main request and as auxiliary requests A to E with letter dated 9 September 2014

V. The respondent requests that the appeal be dismissed.

VI. Claim 1 of the main request reads as follows (in bold the amendments with respect to claim 1 of patent as granted with deletions in strike-through; emphasis added by the Board):

"A paint supply system for a painting robot (1)~~**, said system**~~ comprising a paint spraying device (2) mounted

on a tool holder on the outer end of a robot arm (3), **a supply unit (7) which may contain a multicolour changer (9), ~~and~~** an adapter unit (6) **with an integrated colour changing unit mounted ~~for mounting~~** on the robot arm **~~close to or~~** in direct contact with the paint spraying device **(2), the adapter (6) is a monolithic block of polymeric material or light metal** characterized in that it comprises
- first and second supply lines (15, 16), **connecting the supply unit (7) which may contain a multicolour changer with the adapter (6),** for supplying first and second painting fluids to the adapter,
- a third supply line (18) for supplying a cleansing fluid to the adapter, **~~and in that~~** the adapter has
- a first inlet duct (15a) connected to the first supply line,
- a second inlet duct (16a) connected to the second supply line,
- a third inlet duct (18a) connected to the third supply line,
- an outlet duct (19) connected to the paint spraying device,
- first valve means (11), for connecting the first inlet duct to the outlet duct,
- second valve means (12), for connecting the second inlet duct to the outlet duct,
- third valve means (13), for connecting the third inlet duct to the outlet duct."

Claim 1 of auxiliary request A reads as follows (in bold the amendments with respect to claim 1 of the main request with deletions in strike-through; emphasis added by the Board):

"A paint supply system for a painting robot (1) comprising a paint spraying device (2) mounted on a

tool holder on the outer end of a robot arm (3), a supply unit (7) which may contain a multicolour changer (9)**, placed at the lower part of the robot**, an adapter unit (6) with an integrated colour changing unit mounted on the robot arm **(7)** in direct contact with the paint spraying device ~~(2)~~, the adapter (6) is a monolithic block of polymeric material or light metal characterized in that it comprises
- first and second supply lines (15, 16), connecting the supply unit (7) which may contain a multicolour changer with the adapter (6), for supplying first and second painting fluids to the adapter,
- a third supply line (18) for supplying a cleansing fluid to the adapter, the adapter has
- a first inlet duct (15a) connected to the first supply line,
- a second inlet duct (16a) connected to the second supply line,
- a third inlet duct (18a) connected to the third supply line,
- an outlet duct (19) connected to the paint spraying device,
- first valve means (11), for connecting the first inlet duct to the outlet duct,
- second valve means (12), for connecting the second inlet duct to the outlet duct,
- third valve means (13), for connecting the third inlet duct to the outlet duct."

Claim 1 of auxiliary request B reads as follows (in bold the amendments with respect to claim 1 of the main request; emphasis added by the Board):

"A paint supply system for a painting robot (1) comprising a paint spraying device (2) mounted on a tool holder on the outer end of a robot arm (3), a

supply unit (7) which may contain a multicolour changer (9), an adapter unit (6) with an integrated colour changing unit mounted on the robot arm in direct contact with the paint spraying device (2), the adapter (6) is a monolithic block of polymeric material or light metal characterized in that it comprises
- first and second supply lines (15, 16), connecting the supply unit (7) which may contain a multicolour changer with the adapter (6), for supplying first and second painting fluids to the adapter,
- a third supply line (18) for supplying a cleansing fluid to the adapter,
- a dump line (17),
- pilot lines (14) for pressurized air,
and in that the adapter has
- a first inlet duct (15a) connected to the first supply line,
- a second inlet duct (16a) connected to the second supply line,
- a third inlet duct (18a) connected to the third supply line,
- an outlet duct (19) connected to the paint spraying device,
- first valve means (11), for connecting the first inlet duct to the outlet duct,
- second valve means (12), for connecting the second inlet duct to the outlet duct,
- third valve means (13), for connecting the third inlet duct to the outlet duct."

Claim 1 of auxiliary request C reads as follows (in bold the amendments with respect to claim 1 of the auxiliary request B; emphasis added by the Board):

"A paint supply system for a painting robot (1) comprising a paint spraying device (2) mounted on a

tool holder on the outer end of a robot arm (3), a supply unit (7) which may contain a multicolour changer (9), **placed at the lower part of the robot**, an adapter unit (6) with an integrated colour changing unit mounted on the robot arm in direct contact with the paint spraying device (2), the adapter (6) is a monolithic block of polymeric material or light metal characterized in that it comprises
- first and second supply lines (15, 16), connecting the supply unit (7) which may contain a multicolour changer with the adapter (6), for supplying first and second painting fluids to the adapter,
- a third supply line (18) for supplying a cleansing fluid to the adapter,
- a dump line (17),
- pilot lines (14) for pressurized air,
and in that the adapter has
- a first inlet duct (15a) connected to the first supply line,
- a second inlet duct (16a) connected to the second supply line,
- a third inlet duct (18a) connected to the third supply line,
- an outlet duct (19) connected to the paint spraying device,
- first valve means (11), for connecting the first inlet duct to the outlet duct,
- second valve means (12), for connecting the second inlet duct to the outlet duct,
- third valve means (13), for connecting the third inlet duct to the outlet duct."

Claim 1 of auxiliary request D reads as follows (in bold the amendments with respect to claim 1 of the auxiliary request B; emphasis added by the Board):

"A paint supply system for a painting robot (1) comprising a paint spraying device (2) mounted on a tool holder on the outer end of a robot arm (3), a supply unit (7) which may contain a multicolour changer (9), an adapter unit (6) with an integrated colour changing unit mounted on the robot arm in direct contact with the paint spraying device (2), the adapter (6) is a monolithic block of polymeric material or light metal characterized in that it comprises
- first and second supply lines (15, 16), connecting the supply unit (7) which may contain a multicolour changer with the adapter (6), for supplying first and second painting fluids to the adapter,
- the first and second paint fluids are first and second single component paints,
- a third supply line (18) for supplying a cleansing fluid to the adapter,
- a dump line (17),
- pilot lines (14) for pressurized air,
and in that the adapter has
- a first inlet duct (15a) connected to the first supply line,
- a second inlet duct (16a) connected to the second supply line,
- a third inlet duct (18a) connected to the third supply line,
- an outlet duct (19) connected to the paint spraying device,
- first **double-acting** valve means (11), for **selectively** connecting the first inlet duct to the outlet duct **or the dump line,**
- second **double-acting** valve means (12), for **selectively** connecting the second inlet duct to the outlet duct **or the dump line,**
- third valve means (13), for connecting the third inlet duct to the outlet duct,

whereas the system comprises means for either during a paint spraying operation with said first paint, maintaining said second and third valve means closed and said first valve means open for supplying said first paint to the spray gun, or during a paint spraying operation with said second paint, maintaining said first and third valve means closed and said second valve means open for supplying said second paint to the spray gun, or for cleansing the adapter and spray gun maintain said first and second valve means closed and said third valve means open."

Claim 1 of auxiliary request E reads as follows (in bold the amendments with respect to claim 1 of the auxiliary request D; emphasis added by the Board):

"A paint supply system for a painting robot (1) comprising a paint spraying device (2) mounted on a tool holder on the outer end of a robot arm (3), a supply unit (7) which may contain a multicolour changer (9)**, placed at the lower part of the robot,** an adapter unit (6) with an integrated colour changing unit mounted on the robot arm in direct contact with the paint spraying device (2), the adapter (6) is a monolithic block of polymeric material or light metal characterized in that it comprises
- first and second supply lines (15, 16), connecting the supply unit (7) which may contain a multicolour changer with the adapter (6), for supplying first and second painting fluids to the adapter,
- the first and second paint fluids are first and second single component paints,
- a third supply line (18) for supplying a cleansing fluid to the adapter,
- a dump line (17),

- pilot lines (14) for pressurized air,
and in that the adapter has
- a first inlet duct (15a) connected to the first supply line,
- a second inlet duct (16a) connected to the second supply line,
- a third inlet duct (18a) connected to the third supply line,
- an outlet duct (19) connected to the paint spraying device,
- first double-acting valve means (11), for selectively connecting the first inlet duct to the outlet duct or the dump line,
- second double-acting valve means (12), for selectively connecting the second inlet duct to the outlet duct or the dump line,
- third valve means (13), for connecting the third inlet duct to the outlet duct,
whereas the system comprises means for either
during a paint spraying operation with said first paint, maintaining said second and third valve means closed and said first valve means open for supplying said first paint to the spray gun, or
during a paint spraying operation with said second paint, maintaining said first and third valve means closed and said second valve means open for supplying said second paint to the spray gun, or
for cleansing the adapter and spray gun maintain said first and second valve means closed and said third valve means open."

VII. The appellant argued essentially as follows:

The embodiments according to the invention in the application as filed provide support for the introduction of a supply unit in claims 1 of the main

request and auxiliary requests B and D. The supply unit can be isolated from the rest of the features of the said embodiments. The location of the supply unit "at the lower part of the robot" is not an essential feature for the functioning of the claimed device. To distinguish the claimed subject-matter from the prior art, it has only to be specified that the adapter and the supply unit are two different parts. The requirements of Article 123(2) EPC are therefore fulfilled.

The expression "placed at the lower part of the robot" introduced in claims 1 of the auxiliary requests A, C and E should be interpreted in light of the goal to avoid any interference with the movement of the robot arm in accordance with the disclosure of the contested patent as a whole. There is therefore no lack of clarity introduced by this feature.

In view of the above, the subject-matter of the late-filed main request and the auxiliary requests A to E is *prima facie* allowable and, hence, these requests should be admitted in the proceedings.

VIII. The respondent argued essentially as follows:

The feature relating to the supply unit introduced in claims 1 of the late-filed main request and the auxiliary requests B and D gives rise to a new valid objection of added subject-matter. As a matter of fact, the supply unit is originally disclosed as being always "placed at the lower part of the robot". Since this location of the supply unit is not specified in the claims 1 of the main request and the auxiliary requests B and D, it can be placed anywhere in the claimed devices, which is a new technical information not

directly and unambiguously derivable from the application as originally filed.

The expression "placed at the lower part of the robot" introduced in claims 1 of the late-filed auxiliary requests A, C and E for the location of the supply unit renders said claims *prima facie* unclear. As a matter of fact, the limit for the "lower part" of the robot with respect to the rest of the robot is undefined. It is further unclear what could be the distance between the robot and the supply unit. Further, if placed on the robot arm, the supply unit could under some operational conditions satisfy this feature while under others not. Similarly, robots could possibly be regarded as having the supply unit placed at their lower part when on the shelf, while no longer when mounted.

In view of the above, the subject-matter of the late-filed main request and the auxiliary requests A to E is *prima facie* not allowable so that the requests should not be admitted in the proceedings.

Reasons for the Decision

1. The appeal is admissible.

2. Admissibility of the requests

2.1 With its letter dated 9 September 2014 the appellant filed a new main request and the auxiliary requests A to E in replacement of all its former requests. These new requests were therefore filed after the reply of the respondent to the grounds of appeal, even after the arrangement of the oral proceedings. They are therefore filed late in the proceedings so that their admission

is subject to the discretionary power of the Board in accordance with Article 13(1) and (3) RPBA.

2.2 In accordance with the established case law, such late-filed requests are regarded as inadmissible if they are directed to subject-matter which *prima facie* is not allowable. It must be immediately apparent to the Board, with little investigative effort on its part, that the amendments made successfully address the issues raised, without giving rise to new ones (Case Law of the Boards of Appeal, 7th Edition 2013, IV.E. 4.4.2).

2.3 Main request and auxiliary requests B and D

2.3.1 Since the Board considers that the claims 1 of the main request and the auxiliary requests B and D give rise to a new *prima facie* valid objection of added subject-matter (Article 123(2) EPC) (see below), these requests are not admitted in the proceedings and, hence, there is no need to discuss in this decision the other objections raised by the respondent against them.

2.3.2 Each claim 1 of the main request and the auxiliary requests B and D comprises the following feature (see point VI above):

a supply unit (7) which may contain a multicolour changer.

This feature was not present in the claims of **either** the patent as granted **or** the requests filed with the statement of grounds of appeal. It was taken from the description of the contested patent and introduced for the very first time in the appeal proceedings in claims 1 of the said late-filed requests.

2.3.3 As correctly pointed out by the appellant, the only possible support for this feature in the application as filed is to be found in the embodiment of figure 2, page 4, line 3 (colour reservoir 7) and the embodiment of figure 3, page 4, line 35 (supply unit 7).

However, as discussed during the oral proceedings, the Board considers that, even if to the advantage of the appellant the colour reservoir of the embodiment of figure 2 (page 3, line 33 to page 3, line 7) were to be regarded as being strictly equivalent to the supply unit disclosed in the embodiment of figure 3 (page 4, lines 9-36), which was contested by the respondent, both embodiments disclose the reservoir and the supply unit **"placed at the lower part of the robot"** (see page 3, line 36 in combination with figure 2; page 4, lines 35-36). There is indeed no general disclosure in the application as filed for a reservoir or a supply unit to be placed anywhere else than at the lower part of the robot.

Therefore, the Board shares the respondent's view given during the oral proceedings, that the supply unit according to the device of claims 1 of the main request and the auxiliary requests B and D can be placed **anywhere on the robot**, possibly also close to the paint spraying device on the outer end of the robot arm, which amounts to providing a new teaching which was not originally disclosed. Since this new technical information was not directly and unambiguously derivable by the skilled person from the application as filed, the requirements of Article 123(2) EPC are *prima facie* not fulfilled.

2.3.4 The appellant argues that the reservoir and supply unit are not structurally or functionally linked with the other features shown in the embodiments of figures 2 and 3, so that this feature can be isolated from said embodiments and introduced in claims 1 of these requests. This would therefore not lead to an inadmissible intermediate generalisation.

In particular, it considers that there is no need to specify in the claims 1 that the supply unit is "placed at the lower part of the robot" since the specific location is not an essential feature. The skilled person will realise that the supply unit can be placed anywhere as long as the functioning of the claimed device is not hampered. It is further not necessary to specify that the supply unit is not placed on the outer end of a robot arm as this would appear obvious for the skilled person. In fact, to distinguish the claimed subject-matter from the prior art, it has only to be specified that the adapter and the supply unit are two different parts (T 1055/92, OJ EPO 1995, 214).

2.3.5 The Board agrees with the conclusions of the cited decision T 1055/92 (*supra*) that a claim must indeed comprise the essential features of the invention and that the essential features should comprise those features which distinguish the invention from the closest prior art. This decision and its conclusions relate, however, to conditions for fulfilling the requirements of clarity, not of added subject-matter according to Article 123(2) EPC. Therefore, the decision does not appear relevant to the Board for the present case in which, as pointed out under point 2.3.3 above, omitting that the supply unit is "placed at the lower part of the robot" leads to a new technical information not originally disclosed.

2.3.6 Consequently, the main request and the auxiliary requests B and D are directed to subject-matter which *prima facie* is not allowable so that they are not admitted in the proceedings (Article 13(1) and (3) RPBA).

2.4 Auxiliary requests A, C and E

2.4.1 Since the Board considers that the claims 1 of the auxiliary requests A, C and E *prima facie* do not overcome an outstanding lack of clarity objection (Article 84 EPC) (see below), these requests are not admitted in the proceedings and, hence, there is no need to discuss in this decision the other objections raised by the respondent against them.

2.4.2 Claim 1 of each of the auxiliary requests A, C and E comprises the following feature (see point VI above):

a supply unit (7) which may contain a multicolour changer, **placed at the lower part of the robot**.

Similarly to the discussion under point 2.3.2 above, this feature as a whole, i. e. the supply unit and its location, was present neither in the claims of the patent as granted nor in those of the requests filed with the statement of grounds of appeal. It was taken from the description of the contested patent and introduced for the very first time in the appeal proceedings in claims 1 of the said late-filed requests.

2.4.3 The Board shares the respondent's view that the expression "placed at the lower part of the robot" of the feature concerned is unclear, thus rendering claims

1 of the auxiliary requests A, C and E unclear (Article 84 EPC). Such a lack of clarity objection with respect to this expression was already raised by the respondent with its reply to the statement of grounds of appeal and provisionally regarded as being valid by the Board in the annex to the summons for oral proceedings, point 8.2.

The Board agrees with the respondent's view that this feature does not allow to establish clear limits for the location of the supply unit. Indeed, the skilled person does not know where the limit of the "lower part" is with respect to the rest of the robot (Article 84 EPC).

Further, figure 2 discloses that the reservoir (7) - should it be regarded as being the supply unit - is placed outside the robot. This expression is thus unclear as it does not provide any limit for the distance between the supply unit and the robot.

As admitted by the appellant during the oral proceedings, the feature also encompasses the configuration that the supply unit is placed on the robot arm. However, as argued by the respondent, depending on the operational conditions, the robot arm may be extending in a vertical position, upwardly or downwardly, or in an horizontal position as shown in figure 2 of the contested patent. In case the robot arm extends upwardly, this feature might possibly be satisfied depending where it is placed on the robot arm. However, for the same configuration, when the robot arm extends downwardly, the feature will obviously not be satisfied. This leads to uncertainty on the meaning of this feature so that claims 1 of the

auxiliary requests A, C and E are *prima facie* unclear (Article 84 EPC).

Finally, as further argued by the respondent, a robot could be mounted upside down or by the side so that, when "standing" on the shelf such robot could possibly be regarded as satisfying the condition that the supply unit is placed at the lower part of the robot, while no longer when mounted. This leads to lack of clarity (Article 84 EPC).

2.4.4 The appellant argues that the expression "placed at the lower part of the robot" should be interpreted in view of the disclosure of the contested patent as a whole, which is to avoid any interference with the movement of the robot arm. As shown in figure 2 of the contested patent, the supply unit will advantageously be placed on the ground, as close as possible to the robot. As a result, there is no lack of clarity implied by this expression.

2.4.5 The Board cannot share the appellant's view for the reasons put forward by the respondent during the oral proceedings, namely that the expression "placed at the lower part of the robot" is not restricted to "on the ground" or "to avoid interference with the movement of the robot arm". These interpretations are not in claims 1 of the auxiliary requests A, C and E. In fact, this expression does not provide clear limits and further encompasses configurations which are inherently contradictory, as already discussed under point 2.4.3 above.

2.4.6 Consequently, the auxiliary requests A, C and E are directed to subject-matter which *prima facie* is not

allowable so that they are not admitted in the proceedings (Article 13(1) and (3) RPBA).

2.5 Since none of the appellant's final requests has been admitted into the appeal proceedings leading to a procedural situation where there is no allowable request that could serve as a basis for a decision on its merits, the appeal is to be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

G. Nachtigall I. Beckedorf

Decision electronically authenticated