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**Datasheet for the decision
of 21 November 2023**

Case Number: T 0536/21 - 3.2.01

Application Number: 12843074.1

Publication Number: 2771538

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E21B41/00, E21B34/04,
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Language of the proceedings: EN

Title of invention:
METHOD AND DEVICE FOR EXTENDING LIFETIME OF A WELLHEAD

Patent Proprietor:
Subsea Solutions AS

Opponent:
Siemens Aktiengesellschaft

Headword:

Relevant legal provisions:
EPC Art. 123(2)

Keyword:
added subject-matter (no)

Decisions cited:

Catchword:



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Case Number: T 0536/21 - 3.2.01

D E C I S I O N
of Technical Board of Appeal 3.2.01
of 21 November 2023

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Decision under appeal: **Interlocutory decision of the Opposition
Division of the European Patent Office posted on
12 March 2021 concerning maintenance of the
European Patent No. 2771538 in amended form.**

Composition of the Board:

Chairman H. Geuss
Members: C. Narcisi
S. Fernández de Córdoba

Summary of Facts and Submissions

I. The European patent No. 2 771 538 was maintained in amended form by the decision of the Opposition Division posted on 12 March 2021. Against this decision an appeal was lodged by the Opponent in due form and in due time pursuant to Article 108 EPC.

II. The following documents are cited in this decision:

WO-A (designating the published patent application of the contested patent);

EP-B (designating the publication of the contested patent).

III. Oral proceedings were held on 21 November 2023. The Appellant (Opponent) requested that the decision under appeal be set aside and that the European patent be revoked.

The Respondent (Patent Proprietor) requested that the appeal be dismissed and the patent be maintained in amended form according to the appealed decision (main and sole request).

IV. Claim 1 (main request) reads as follows:

"A method of extending the lifetime of a Christmas tree (10), the Christmas tree (10) being provided with at least a first high-pressure hydraulic valve pack (12), a first low pressure hydraulic valve pack (14) or a first chemical valve pack (16), and the Christmas tree (10) being arranged to be connectable to an umbilical (22) which comprises at least electrical power or

control cables (24), hydraulic tubes (26, 28) or chemical tubes (30), the method comprising the following steps:

- retrofitting an upgrading module (50) in association with the Christmas tree (10) and connecting the upgrading module (50) to the Christmas tree (10) with ROV-activatable tube and wire connections, the upgrading module (50) comprising a second control module (62), and at least a hydraulic low-pressure pump (80) with a second low-pressure hydraulic valve pack (82) and a hydraulic reservoir (86) or a chemical pump (92) with a chemical reservoir (96), the upgrading module not comprising a hydraulic high-pressure pump (66) with a second high-pressure valve pack (61) and a hydraulic reservoir (70);
- supplying the second control module (62) with electrical power and control signals via the umbilical (22) or from a vessel; and
- supplying at least the low pressure pump (80) or the chemical pump (92) directly or indirectly via their respective reservoirs (70, 86, 96) with hydraulic fluid via the umbilical (22) or from a vessel, the upgrading module (50) being placed on or beside the Christmas tree (10)."

Claim 2 (main request) reads as follows:

"An upgrading module (50) to be retrofitted in association with a Christmas tree (10), the Christmas tree (10) being provided with at least a first high-pressure hydraulic valve pack (12), a first low-pressure hydraulic valve pack (14) or a first chemical valve pack (16), the Christmas tree (10) being arranged to be connected to an umbilical (22) which comprises at least electrical power or control cables (24), hydraulic tubes (26, 28) or chemical tubes (30), and

the upgrading module (50) being provided with a second electric control module (62) which is connectable to at least the power and control lines of an umbilical (22) or to a vessel, and the upgrading module (50) comprising at least a hydraulic low-pressure pump (80) with a second low-pressure hydraulic valve pack (82) and a hydraulic reservoir (86) or a chemical pump (92) with a chemical reservoir (96), the upgrading module (50) being connected to the Christmas tree (10) with ROV-activatable MQC plates or Tronic connections (44, 54), the upgrading module not comprising a hydraulic high-pressure pump (66) with a second high-pressure valve pack (61) and a hydraulic reservoir (70), the upgrading module (50) being placed on or beside the Christmas tree."

V. The Appellant's (Opponent) arguments may be summarized as follows:

The subject-matter of claim 1 (and claim 2) extends beyond the content of the application as filed (see published patent application WO-A), as feature 1G in claim 1 (i.e. "the upgrading module not comprising a hydraulic high-pressure pump (66) with a second high pressure valve pack (61) and a hydraulic reservoir (70)") and corresponding feature 2G (identical with feature 1G) in claim 2 include added subject-matter.

Decision G 2/10 states that "an amendment to a claim by the introduction of a disclaimer disclaiming from it subject-matter disclosed in the application as filed infringes Article 123 (2) EPC if the subject-matter remaining in the claim after the introduction of the disclaimer is not, be it explicitly or implicitly, directly and unambiguously disclosed to the skilled

person using common general knowledge, in the application as filed" (see G 2/10, Headnote, 1a).

It appears to be acknowledged in the appealed decision (see e.g. appealed decision, page 13, penultimate paragraph) that WO-A does not disclose any embodiment not including feature A, this being also not disputed by the Patentee.

WO-A offers no support for said disclaimer features, since feature (i) (i.e. "the upgrading module (50) comprising at least a hydraulic high-pressure pump (66) with a second high-pressure valve pack (61) and a hydraulic reservoir (70), a hydraulic low-pressure pump (80) with a second low-pressure hydraulic valve pack (82) and a hydraulic reservoir (86) or a chemical pump (92) with a chemical reservoir (96)") of original claim 1 (and 2) (see WO-A), contrary to the reasoning presented in the appealed decision, cannot provide an adequate support.

Feature (i) is equivalent to the feature "the upgrading module (50) comprising at least A, B or C", thus defining three possible alternative features A (a hydraulic high-pressure pump (66) with a second high-pressure valve pack (61) and a hydraulic reservoir (70)), B (a hydraulic low-pressure pump (80) with a second low-pressure hydraulic valve pack (82) and a hydraulic reservoir (86)) or C (a chemical pump (92) with a chemical reservoir (96)), defining three corresponding independent claims each including one of alternative features A, B and C.

According to decision G 2/10 determining whether or not the introduction of a disclaimer infringes Article 123 (2) EPC "requires a technical assessment of the overall technical circumstances of the individual case under

consideration, taking into account the nature and extent of the disclosure in the application as filed, the nature and extent of the disclaimed subject-matter and the relationship with the subject-matter remaining in the claim after the amendment" (see G 2/10, Headnote, 1b).

In particular, the Enlarged Board in G2/10 stressed that "whether that subject-matter was originally disclosed or not cannot be decided by following so-called rules of logic, in the sense that if an application discloses a general teaching and specific embodiments, groups thereof or areas, then all other potential embodiments, groups thereof or areas falling within the ambit of the general teaching (but not as such disclosed in the application as filed) would thereby, by implication, inevitably also be disclosed" (see G 2/10, Reasons, 4.5.3).

Apparently, the appealed decision erroneously concluded (based on an incorrect application of the rules of logic) that the disclosure of said three independent claims including alternative features A, B or C, respectively, automatically implies that all independent claims including alternative features AB (i.e. A and B), AC, BC, or ABC were also disclosed in WO-A (see appealed decision, page 13).

Moreover, it was also erroneously concluded that given feature A being not explicitly included in the two independent claims including features B or C (see claim 1 or 2 in WO-A), respectively, then feature A was to be considered as merely "optional" and the disclaimer implied by features 1G and 2G was hence allowable.

This reasoning is in evident disagreement with decision G 2/10, requiring that the subject-matter remaining in

the claim after the introduction of the disclaimer be either explicitly or implicitly, directly and unambiguously disclosed to the skilled person using common general knowledge, in the application as filed (see above; G 2/10, Headnote 1b).

In particular, said independent claims including alternative features B or C (see WO-A) do not constitute a disclosure of said "remaining subject-matter" (remaining after the introduction of features 1G,2G), the mere fact that feature A is not explicitly included in said claims not necessarily and inevitably implying that feature A is implicitly excluded and not encompassed by the scope of said claims.

Finally, the appealed decision likewise violates the "gold standard" mentioned in G 2/10, since feature A being explicitly excluded from the claimed subject-matter (according to disclaimer features 1G and 2G) represents for the skilled person an additional information of technical nature not derivable from the original disclosure in WO-A.

VI. The Respondent's (Patentee) arguments may be summarized as follows:

The subject-matter of claim 1 (and 2) of the main request does not include subject-matter extending beyond the content of the application as filed (see published patent application WO-A), as said disclaimer features 1G and 2G were originally disclosed in the application as filed (see WO-A).

Indeed, the "or" construction included in claim 1 (and 2) of WO-A and particularly in said feature (i) (i.e. "the upgrading module (50) comprising at least a

hydraulic high-pressure pump (66) with a second high-pressure valve pack (61) and a hydraulic reservoir (70), a hydraulic low-pressure pump (80) with a second low-pressure hydraulic valve pack (82) and a hydraulic reservoir (86) or a chemical pump (92) with a chemical reservoir (96)”) implies that aforementioned features A, B and C of the list are to be interpreted as alternatives, which follows from basic rules of logic.

From G 2/10 it follows that disclaiming subject-matter only positively disclosed in the application as filed would be allowed if the remaining subject-matter of the claim is directly and unambiguously derivable from the application as filed (see WO-A). In this specific case, the alternatives A, B or C were already included in the independent claims and in the general part of the application as filed (WO-A).

Therefore, removing (by disclaiming) one of the features (in particular feature A) does not violate Article 123(2) EPC, as the two remaining alternatives were already included as separate variants in the application as filed.

Hence, there also is no “singling out any hitherto not specifically mentioned or at least implicitly disclosed” embodiments (see G 2/10, Reasons, 4.5.4) since the application as filed already directly and unambiguously presents feature A as optional.

Moreover, the Appellant’s reference to G 2/10 (Reasons, 4.5.3) and the “Rules of logic” is incorrect, for in the present case no non-disclosed subgroup is being singled out by means of the disclaimer. Instead, said disclaimer features 1G, 2G merely amount to disclaiming

one (out of three) separate alternatives listed as so already from the beginning.

Further, it comes unambiguously from the description, that said features A, B and C are technically not directly and indissolubly linked, so the upgrading module according to the invention may include only the necessary components (page 3, lines 12 et seq. of WO-A): the upgrading module includes only the features for upgrading a Christmas tree to the "extent necessary").

It lies in the very nature of a disclosed disclaimer that the disclaimed subject-matter has only been positively disclosed in the application as filed. This means that there will, per definition, not be any disclosed embodiment in which the disclaimed feature was positively disclaimed in the application as filed.

Reasons for the Decision

1. The appeal is admissible.
2. The appellant challenges the decision of the opposition division, asserting that the disclaimer feature 1G and 2G ("the upgrading module not comprising a hydraulic high-pressure pump with a second high-pressure valve pack and a hydraulic reservoir") is not originally disclosed in the application documents.
3. The Board considers that the reasoning in the appealed decision is correct, insofar as the application as filed (WO-A) encompasses according to claim 1 (and 2)

three alternative embodiments, each including one of said alternative features A (a hydraulic high-pressure pump (66) with a second high-pressure valve pack (61) and a hydraulic reservoir (70)), B (a hydraulic low-pressure pump (80) with a second low-pressure hydraulic valve pack (82) and a hydraulic reservoir (86)) and C (a chemical pump (92) with a chemical reservoir (96)).

This immediately results from the "or"-structure of feature (i) in claim 1 (and 2) of WO-A, feature (i) reading "the upgrading module (50) comprising at least A, B or C" (see above), and both parties agree on this point.

Further, the Board agrees with the appealed decision in that G 2/10 relates to the present case, wherein the disclaimed subject-matter (i.e. feature A) is disclosed in the application as filed (WO-A), the question to be answered therefore being whether or not, be it explicitly or implicitly, the subject-matter remaining in the claim after the introduction of the disclaimer features 1G, 2G is clearly and unambiguously disclosed to the skilled person using common general knowledge in the application as filed.

In the Board's view this question represents a relevant and essential aspect of said broader question of whether or not disclaimer features 1G, 2G infringe Article 123(2) EPC. Indeed, if e.g. said features A, B and C would emerge from the overall disclosure of WO-A as being directly and indissolubly or inextricably linked, then an implicit exclusion of feature A in (at least one alternative of original) claim 1 could not be inferred.

In the appealed decision (see page 13) it was concluded that in view of the specific "or"-construction of said

feature (i) and the technical context of claim 1, having also regard to the description of WO-A (specific passages being discussed; see e.g. paragraph 49 in the decision), said "remaining subject-matter" is indeed directly and unambiguously disclosed to the skilled person using common general knowledge in the application as filed (WO-A). Further, the decision states that the embodiments of page 4, lines 23 to 27 do not comprise component A. The appealed decision comes to the conclusion that (see paragraph 49) said component according to feature A was merely an "option" and could be dispensed with.

Thus, the appealed decision's conclusion is based not only on the subject-matter and structure of original claim 1 (WO-A), but also on the overall disclosure of WO-A, which would necessarily be taken into account by the skilled person attempting to construe the technical teaching of WO-A.

The Appellant disputed the aforesaid conclusion and reasoning of the appealed decision, essentially asserting that it cannot be derived from general principles (e.g. so called "rules of logic") that the non-inclusion or absence of feature A in at least one alternative comprised in original claim 1 necessarily entails that feature A is implicitly excluded from claim 1, thus original claim 1 in the Appellant's opinion not providing a basis for said disclaimer feature 1G, 2G.

Therefore in the Appellant's view, disclaimer features 1G, 2G clearly represent additional information, not disclosed in the application as filed, this being in disagreement with decision G 2/10 and with the "gold

standard", which is to be applied in the present case according to G 2/10 for determining whether or not Article 123(2) EPC is infringed.

The Board concurs with the Appellant's view insofar as the mere non-inclusion or absence of feature A in at least one alternative in original claim 1 cannot in itself or per se represent a basis for said disclaimer features 1G, 2G, but the subject-matter remaining in the claim after the introduction of the disclaimer features 1G, 2G is clearly and unambiguously disclosed to the skilled person (see above).

In this respect, the Appellant did not provide convincing arguments setting out as to why the skilled person in view of common general knowledge would not infer from the overall disclosure of WO-A that said component A could be dispensed with and is merely an "option", as stated by the opposition division (see above). In effect, the appellant could not rebut the Respondent's argument that it would be illogical to include an high-pressure pump in the upgrading module, if the Christmas tree being upgraded has well-functioning high-pressure components and that is evident from the description (page 3, lines 12 et seq. of WO-A): the upgrading module includes only the features for upgrading a Christmas tree to the "extent necessary".

From the term "to the extent necessary" comes directly that said features A, B and C are technically not

directly and indissolubly linked, so the upgrading module according to the invention may include only the necessary components (resp. features).

In view of the above, the Appellant could not convince the Board that considering the absence or non-inclusion of feature A in (at least one alternative of) original claim 1 being clearly an "option" disclosed in WO-A (implying the explicit exclusion of feature A) was an erroneous judgement in the appealed decision.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



A. Voyé

H. Geuss

Decision electronically authenticated