Datasheet for the decision
of 23 October 2008

Case Number: T 0982/07 - 3.2.01
Application Number: 00988834.8
Publication Number: 1222107
IPC: B63B 25/18
Language of the proceedings: EN

Title of invention:
Method and arrangement for shipping reels; tweendeck and tweendeck arrangement in cargo space of ship

Patentee:
OY Langh Ship AB

Opponents:
Flinter Groningen B.V.
Wijnne & Barends' Cargadoors-en Agentuurkantoren B.V.

Headword:
-

Relevant legal provisions:
RPBA Art. 12(2), 13(1)
EPC Art. 101(3)(b)

Relevant legal provisions (EPC 1973):
EPC Art. 54, 56, 84, 87, 100(c)

Keyword:
"Priority (no)"
"Novelty (yes)"
"Inventive step (no)"
"Claims - clarity (yes)"
"Opposition grounds - extension of subject-matter (no)"
"Admissibility of requests - reformatio in peius"
Decisions cited:
G 0009/92, G 0001/99, T 0311/93, T 0855/95

Catchword:
-

Composition of the Board:

Chairman: S. Crane
Members: J. Osborne

T. Karamanli
Summary of Facts and Submissions

I. The opponents' appeals are directed against the interlocutory decision posted 25 April 2007 according to which, account being taken of the amendments made by the patent proprietor during the opposition proceedings, European patent No. 1 222 107 and the invention to which it relates were found to meet the requirements of the EPC 1973. The patent derives from a PCT application originally filed in Finnish.

II. The patent has a filing date of 22 December 2000 and claims priorities from five earlier applications, the earliest and latest (hereafter PR1, PR5 respectively) having the following filing dates:

PR1: 30 December 1999;


III. The following state of the art played a role during the appeal proceedings:


IV. In response to the appeals the respondent initially requested that they be dismissed, whereby the patent would be maintained on the basis of the claims as approved by the opposition division. In an annex to a summons to oral proceedings to be held on 23 October 2008 the board indicated inter alia its provisional opinion that the claims as approved by the opposition division were unclear and included subject-matter which
had not been disclosed in the application as originally filed. The board set a deadline of two months before the oral proceedings for the parties to file any further requests or written submissions.

V. With a letter received on 22 August 2008 the respondent filed amended sets of claims according to a main and three auxiliary requests and the following statements of an authorised translator:

P26, P27: relating to corrections in the translation into English of the original application;

P28: relating to corrections in the translation into English of PR1.

VI. At oral proceedings held on 23 October 2008 the appellants requested that the decision under appeal be set aside and the patent revoked. The respondent requested that the decision under appeal be set aside and the patent maintained in amended form on the basis of the claims according to the main request or in the alternative according to the first auxiliary request (former second auxiliary request) and second auxiliary request (former third auxiliary request) all as filed on 22 August 2008.

VII. Claim 1 according to the respondent's main request reads:

"A method for loading or shipping a number of heavy reels (1) onboard a ship (2), or unloading the reels (1) therefrom, in which method the reels (1) are placed on a support which is at a distance from the bottom (6) of
the cargo space (3) of the ship so that the reels are placed at least partly within the cargo space (3) at (sic), characterized by using as the support for the reels (1) a tweendeck structure (5) having therein reel holders (4) forming an integral part of the tweendeck structure (5) and being arranged to hold reels (1) placed therein substantially in position at least in a horizontal direction and in a downward direction, and by placing the tweendeck structure (5) in the cargo space (3) on supports (16) on opposite side walls of the cargo space at such a distance from the bottom (6) of the cargo space that it is closer to the metacentre of the ship than to the bottom of the cargo space (3)."

Claims 1 according to the respondent's auxiliary requests read as follows, wherein in comparison with claim 1 as approved by the opposition division, added text has been underscored and deleted text has been struck through:

"A method for loading or shipping a number of heavy reels (1) onboard a ship (2), or unloading the reels (1) therefrom, in which method the reels (1) are placed on a support which is at a distance from the bottom (6) of the cargo space (3) of the ship so that the reels are placed (5) at least partly within the cargo space (3) of the ship and at (sic) a distance from the bottom (6) of the cargo space, characterized by using as the support for the reels (1) a tweendeck structure (5) having therein reel holders (4) being fixedly fastened to forming an integral part of the tweendeck structure (5) and being arranged to hold reels (1) placed therein substantially in position at least in a horizontal direction and in a downward direction, and by placing
the tweendeck structure (5) in the cargo space (3) on supports (16) on opposite side walls of the cargo space at such a distance from the bottom (6) of the cargo space that it is closer to the metacentre of the ship than to the bottom of the cargo space (3).

"A method for loading or shipping a number of heavy reels (1) onboard a ship (2), or unloading the reels (1) therefrom, in which method the reels (1) are placed on a support which is at a distance from the bottom (6) of the cargo space (3) of the ship so that the reels are placed at least partly within the cargo space (3) of the ship and at a distance from the bottom (6) of the cargo space, characterized by using as the support for the reels (1) a tweendeck structure (5) having therein reel holders (4) being welded to forming an integral part of the tweendeck structure (5) and being arranged to hold reels (1) placed therein substantially in position at least in a horizontal direction and in a downward direction, and by placing the tweendeck structure (5) in the cargo space (3) on supports (16) on opposite side walls of the cargo space at such a distance from the bottom (6) of the cargo space that it is closer to the metacentre of the ship than to the bottom of the cargo space (3)."

VIII. The submissions of the appellants in as far as they are relevant to the present decision may be summarised as follows:

The requests filed by the respondent on 22 August 2008 should not be admitted. The respondent had ample time to formulate amended claims in response to the statements of grounds of appeal. Moreover, the
respondent as a non-appealing patent proprietor is primarily restricted to defending the outcome of the opposition proceedings. P26 to P28 were placed on the file only 2 months before the oral proceedings, leaving the appellants insufficient time to verify them, although they are dated some 16 months prior to their being filed.

The term "integral" was introduced into claim 1 during the opposition proceedings but, as derivable from the differing opinions of the parties, this term has no clear meaning.

If the term "integral" is interpreted as meaning that removal of the reel holders would cause the tweendeck to no longer exist as such, then this was not disclosed in the application as originally filed. In particular, the statement on page 6, lines 12, 13 as published that the reel holder is "preferably fixedly fastened, for example welded, onto the tweendeck" does not disclose that the reel holder is either contributory or essential to the strength of the tweendeck or even that the attachment is permanent. Not only does this express that the reel holders and the tweendeck are separate entities but it fails to disclose their connection in such a way as to render them integral. Figure 3 of the patent application does not unambiguously disclose an integral construction because that is alternatively described as showing a fixed, welded or detachable construction.

Even if figure 3 of the patent application were considered to provide a basis for the concept of an integral construction, it was not contained in PR1. The
arguments concerning disclosure in the application as originally filed otherwise apply equally to PR1.

The first priority claim is invalid for claim 1 according to the main request so that D18 is state of the art. D18 reports on the ship Christina which was converted in accordance with the teachings of the patent. The explicit statement that the reel holders are "incorporated" in the tweendeck means that they are integral. It is also derivable that the reel holders hold the reels in position horizontally because it is stated that the V-shaped grooves accommodate different sizes of reel. Moreover, it is visible from the photograph that the reels are stowed as high as possible within the hold such that it is implicit that the respective distances to the bottom of the cargo space and to the metacentre will be as specified in the claim. Indeed, this condition can be verified by calculation using the information in D18 concerning the total weight of the cargo and the change in the metacentric height resulting from the raising of the tweendeck. It follows that the subject-matter of claim 1 according to the main request is not new with respect to D18.

If, on the other hand, the subject-matter of claim 1 according to the main request is new with respect to D18, the only differentiating feature is that relating to the distances to the bottom of the cargo space and the metacentre, which cannot establish an inventive step. The claimed feature effectively defines the lowest position that the tweendeck can be placed at but this lower limit is not associated with any special effect. It was generally known to place the tweendeck
loaded with reels somewhat higher but the skilled person would also know that they cannot be placed too high. Indeed, D18 states that the tweendecks were placed as high as practicable.

IX. The respondent replied essentially:

The claims according to the main request differ from those approved by the opposition division only in as far as they have been amended in response to the comments from the board. The subject-matter of the claims according to the auxiliary requests has been restricted so that the prohibition of *reformatio in peius* is no bar to their admissibility.

The term "integral" has a clear meaning for the skilled person in the context of the patent specification. The term signifies a permanent connection, cf. T 855/95 (not published in OJ EPO), so that the reel holders are permanently connected to the structure of the tweendeck.

The integrality of construction is furthermore derivable from both the application as originally filed and PR1. Particular reference is made to the wording "preferably fixedly fastened, for instance welded" which appears in both documents. The reels which are transported weigh some 30 to 40 tonnes each and must be securely retained during passage in rough seas. The need to transfer the resulting loads to the walls of the hold teaches the skilled person of the need for an integral construction for which welding is universally employed in shipbuilding. Moreover, the concept of the integral construction is derivable from the content of page 4, lines 5, 6 and 24, 25 of PR1 which refers to
the tweendecks being intended to support only reel holders. That text refers to figure 2 and the skilled person would appreciate that if the reel holders were to be removed from the structure shown there the stand would no longer exist as such.

As regards novelty of the subject-matter of claim 1 according to the main request with respect to D18 the term "incorporates" does not have the same meaning as "integral". Also, it cannot be derived from D18 that the tweendeck is closer to the metacentre than to the bottom of the cargo space since the location of the metacentre is unknown. As regards the feature in claim 1 that the reels are held in a horizontal direction, it can be seen from the photograph of D18 that this feature is not present since the reels are resting on a horizontal floor.

Even if the subject-matter of claim 1 according to the main request differs from the disclosure of D18 by only the feature of the respective distances of the tweendeck to the bottom of the cargo space and to the metacentre, the subject-matter of the claim still involves an inventive step. The claim defines a range between a minimum height for the tweendeck at which desirable ship stability and safe stowage of the cargo can be achieved and a maximum height which results from the positioning of the reels at least partly within the cargo space. Moreover, all of the secondary indicia of inventive step are met.
Reasons for the Decision

Main request

1. Article 12(2) RPBA requires that a respondent's reply to the statements of grounds of appeal shall contain its complete case. Any amendments to that case can be admitted and considered at the board's discretion (Article 13(1) RPBA). The respondent in its reply to the statements of grounds of appeal initially requested that the appeals be dismissed. It therefore chose initially to defend its patent in the form approved by the opposition division. The board summoned the parties to oral proceedings and in an annex indicated its provisional opinion that most objections raised by the appellants in respect of clarity of the claims, insufficiency of disclosure, addition of subject-matter and extension of scope of protection were not valid. However, it also indicated its opinion that one objection of lack of clarity of the claims was valid and ex officio raised a further objection of addition of subject-matter. In the amended main request the respondent has overcome those objections pursued by the board and the amended claims give rise to no new objections. In particular, excluding the possibility that the tweendeck structure may be "at least partly" within the cargo space restricts the subject-matter of the claim and therefore does not contravene the principle of prohibition of reformatio in peius (cf. G 9/92, OJ EPO 1994, 875). Since the amendments were partly in response to an objection first raised by the board the respondent had been unable to react to it at an earlier stage in the proceedings. The board
therefore exercises its discretion to admit the amended main request.

2. The appellants raised numerous objections as regards clarity of the claims, insufficiency of disclosure, addition of subject-matter and extension of scope of protection. Whilst in the board's judgement none of those objections is valid, a detailed reasoning in every respect is unnecessary because of the board's finding below that the subject-matter of claim 1 anyway does not involve an inventive step. The matters of clarity, interpretation and disclosure of the term "integral" are, however, fundamental to that finding and so must be treated. The term did not appear in the application as originally filed but was introduced into dependent claims pre-grant and moved into claim 1 during the opposition procedure.

2.1 The first matter to consider is whether the term has a clear meaning (Article 84 EPC 1973). In the present case the patent specification cannot serve as its own dictionary (cf. T 311/93, not published in OJ EPO) since the term did not appear in the original application. Moreover, the meaning given to the term in the particular context of the case T 855/95 (supra), to which the respondent refers, cannot be relied on because it originated from the technical field of heat shrink labelling which is wholly unrelated to the present case. The normal meaning of the term is "essential" or "necessary to make a whole complete" (Oxford English Dictionary) and the respondent has provided no explanation why this would not be applicable in the art of shipbuilding. Accordingly, the feature of the claim that the reel holders form an
integral part of the tweendeck structure requires that the latter does not exist as a complete entity separate from the former.

2.1.1 The respondent takes the view that in the context of the patent specification the term "integral" should be attributed the meaning of permanently connected, which the person skilled in the art of shipbuilding would understand as being achieved by a welded construction. However, whilst it may be that a permanent connection in shipbuilding would always be made by welding, in the board's judgement a welded connection neither is necessarily permanent nor necessarily renders two parts integral. Two structurally and functionally distinct entities may be joinable by welding but they would remain distinct, albeit joined entities.

2.1.2 The appellants' assertion that the term "integral" is fundamentally unclear is based on the fact that various meanings had been put forward during the opposition and appeal procedures. However, the correct criterion is the ability of the person skilled in the art to understand the term and the board is satisfied that he would readily understand it in the context of the patent specification as set out above.

2.2 Having established the meaning of the term "integral" it is possible to consider whether the technical information conveyed by the wording "reel holders forming an integral part of the tweendeck structure" in claim 1 was disclosed in the application as originally filed, based on its translation into English (Article 70(2) EPC).
2.2.1 Figure 3 is a lateral cross-section though the hull of a ship having a tweendeck positioned close below the weather deck. Each of the hull, weather deck and tweendeck is separately cross-hatched, the last being shown in the form of a rectangular section having a series of oppositely inclined upper surfaces forming the recesses. The description beginning at page 5, line 22 explains with reference to figure 3 that a reel holder may comprise two inclined surfaces. According to page 6, lines 20, 21 "the reel holder 4 can ... be partly formed of a recess on the tweendeck 5 as shown in figure 1, 3". Claims 6, 7 together specify similarly that the tweendeck comprises "at least one reel holder ... formed of a recess in the tweendeck". The specification both in the description and in the claims that the reel holders are formed of recesses in the tweendeck is, in combination with figure 3, a clear disclosure of the feature that the reel holders form an integral part of the tweendeck structure.

2.2.2 The appellants argue that other references on pages 5, 6 to the construction of the reel holders and tweendeck, namely "arranged onto", "preferably placed onto", "preferably fixedly fastened, for example welded onto" and "detachably fastened onto" all are jointly illustrated by figure 3, thereby detracting from an unambiguous disclosure of the feature of integrality. However, there is explicit reference to figure 3 only in page 5, lines 22 to 29 in respect of the inclined surfaces and in the sentence describing the reel holders as being "formed of a recess in the tweendeck".

2.2.3 On the basis of the foregoing the board finds that the feature that the reel holders form an integral part of
the tweendeck structure, upon its correct interpretation, was disclosed in the application as originally filed. The objection under Article 100(c) EPC therefore fails. The respondent states with reference to P26, P27 that in some passages the translation into English was inaccurate. However, whether that is so may be left unanswered because the above finding does not rely on those passages.

3. The patent claims priority from five earlier applications. D18 was published subsequent to the filing date of the earliest priority PR1 but prior to the latest PR5. With respect to the three intermediate priority documents the respondent conceded that these could not establish a valid priority claim if such was not derivable from PR1. Thus, the validity of the first priority claim determines whether D18 forms state of the art.

3.1 The respondent acknowledges that PR1 contains no explicit disclosure of the term "integral" but argues that, although it disagrees with the meaning set out under point 2.1 above, that meaning nevertheless is derivable from PR1.

3.1.1 The relevant passages of PR1 are the description from page 3, line 23 to page 4, line 27, and claims 1, 2, 4, 10. According to those passages the reel holders are arranged on the tweendeck, preferably fixedly fastened to it by, for instance, welding. There is no suggestion of the concept of integrality. The schematic figures 2, 3 represent the reel holders and tweendeck as distinct entities but otherwise convey insufficient information of relevance to the disclosure of "integral". On page 4
it is stated that the tweendeck either may be a
dedicated arrangement for transporting only reel
holders or may alternatively be adapted for also
transporting other cargo. The respondent argues that
dedicated arrangement to be a disclosure of integrality.
However, even in that arrangement the reel holders and
tweendeck are presented as separate entities. If such
separate entities were welded together they would form
a dedicated reel transport arrangement unsuited for
transporting other cargo. However, there remains no
disclosure of the concept that after removal of the
reel holders the tweendeck would no longer exist as
such. Although the respondent argues with reference to
P28 that the translation of PR1 was inaccurate the
passages concerned are not relevant to the above
finding. P28 therefore need not be considered.

3.1.2 The board cannot agree with the respondent's argument
that the skilled person would recognise from PR1 that
an integral construction would be necessary in order to
cope with the loads imposed by restraining the reels in
rough seas. The argument is directed at supporting its
view that a welded construction would imply integrality
but, as already set out above, that is not the case.

3.1.3 In view of the above, PR1 discloses the subject-matter
of claim 1 and, therefore, the requirement for claiming
priority in respect of the same invention referred to
in Article 87(1) EPC 1973 is fulfilled.

3.2 The appellants also challenge the validity of the
latest claim to priority PR5. However, the respondent
does not challenge that D18 was published before the
latest priority date so the matter need not be considered further.

4. D18 is a report published by the MacGregor Group AB on work which it performed together with the respondent in the present case to convert the ship Christina to carry steel coils on tweendecks. It states that each purpose-built tweendeck incorporates V-shaped grooves which secure coils ranging in diameter from 1.2m to 2.2m but is dimensioned to alternatively carry other cargo. The tweendecks are positioned to locate the cargo "as high as practicable" in the ship, thereby reducing the metacentric height from 2.9m to 1.4m.

4.1 The appellants argue that D18 discloses the entire subject-matter of claim 1. They contend that the condition that the tweendeck is located closer to the metacentre than to the bottom of the cargo hold is derivable for the skilled person both from the highest possible location of the tweendeck and from calculation of the reduction in metacentric height resulting from the modification.

4.1.1 The metacentric height of a ship is the distance between its centre of gravity and its metacentre. Raising the cargo of reel holders in the Christina will have lifted the centre of gravity, thereby achieving the reduction in metacentric height mentioned in D18. However, in the absence of data such as weight of the ship, which has not been made available to the board, it cannot be determined by which distance the reels were raised in Christina. Moreover, the height of her metacentre above the base of the cargo hold is not
known. As a result, it cannot be determined whether the condition specified in claim 1 is fulfilled.

4.1.2 Also the statement in D18 that the tweendeck was placed to position the cargo as high as practicable cannot disclose the claimed condition to the skilled person because, once again, the position of the metacentre is not known.

4.2 From the foregoing it results that D18 does not disclose all features of claim 1 and that the subject-matter of the claim is new. However, the respondent argues that the novelty results not only from the claimed condition but extends to the features of integrality and retention of the reels in a horizontal direction by the reel holders. D18 states, however, that each tweendeck panel "incorporates" the reel holders which is a clear teaching of integrality. Furthermore, it is clear from the photograph of the Christina that the holders are constituted by recesses formed in the tweendeck in a manner equivalent to that shown in figure 3 of the patent. The statement in D18 that the V-shaped grooves can secure sizes of coils from 1.2m to 2.2m diameter without adjustment is also a clear disclosure to the skilled person that the inclined surfaces of the grooves engage the reels, thereby holding them in position in a horizontal direction.

5. It follows from the foregoing consideration of novelty of the subject-matter of claim 1 with respect to the disclosure of D18 that the only feature not disclosed is the condition that the tweendeck structure is closer
to the metacentre of the ship than to the bottom of the cargo space.

5.1 It is disclosed in D18 and indeed, as acknowledged by the respondent, it is widely known that it is desirable to raise a heavy cargo above the bottom of the cargo space in a ship in order to improve the roll characteristics. However, a cargo when located higher in this way is subject to greater lateral accelerations during roll, whereby its safe stowage becomes more difficult. D18 discloses that the reels are located "as high as practicable", which already implies a trade-off between conflicting conditions.

5.1.1 The respondent argues that the claimed condition represents a lower limit for the height at which the desired effect on stability is achieved but at which the cargo may still be safely stowed. When presented with the teaching of D18 that the reels are placed as high as practicable the skilled person already was encouraged to experiment with raising the cargo. It would be a normal measure for him to optimise the conflicting conditions of dynamic behaviour and retention of the reels and the claimed condition represents no more than the result of such optimisation.

5.1.2 The respondent also contends that the secondary indicia for inventive step of overcoming a prejudice in the art, satisfaction of a long felt need, commercial success and surprising simplicity are all applicable in this case. However, according to the teaching of D18 the move away from the traditional low location of a heavy cargo had already been made and with great success. The respondent presented no convincing argument that any of
the secondary indicia are associated with the single feature of claim 1 which is not known from D18.

5.2 As a result of the foregoing the board concludes that the subject-matter of claim 1 does not involve an inventive step (Article 56 EPC 1973) and the request fails.

Auxiliary requests

6. Claims 1 according to the auxiliary requests were amended in anticipation of a possible finding by the board that the term "integral" found no basis in the original application and in PR1. This has been done by removing the feature that the reel holders form an integral part of the tweendeck.

6.1 In accordance with decision G 9/92 (supra) in a case such as this in which the opponents are the sole appellants against an interlocutory decision concerning maintenance of the patent in amended form, the respondent is primarily restricted during the appeal proceedings to defending the patent in the form in which it was approved by the opposition division in its decision (prohibition of reformatio in peius).

6.2 Decision G 1/99 (OJ EPO 2001, 381) provides for an exception to the above-mentioned prohibition in order to meet an objection put forward by an opponent/appellant or by the board during appeal proceedings. The exception is applicable if the patent in its amended form otherwise would have to be revoked as a direct consequence of an inadmissible amendment held allowable by the opposition division in its
interlocutory decision. However, that situation does not arise in the present case because the amendment in question, namely the introduction into claim 1 of "integral", does find a basis in the application as originally filed. The amendment therefore is not inadmissible and does not have the direct consequence that the patent would have to be revoked.

6.3 In the claims 1 according to the auxiliary requests the requirement that the reel holders are "integral" with the tweendeck has been removed and replaced by a requirement that they be "fixedly fastened" and "welded" respectively. In accordance with the board's considerations under point 2.1.1 these expressions do not convey the sense of "integral". As a consequence, these amendments render the subject-matter of the claims somewhat broader than that approved by the opposition division. The amended claims would place the appellants in a worse situation than if they had not appealed, contrary to the principle of prohibition of reformatio in peius. The amendments therefore are rejected as inadmissible and the requests fail.

Conclusion

7. Account being taken of the amendments made by the respondent during the appeal proceedings, the patent and the invention to which it relates do not meet the requirements of the EPC. The patent therefore must be revoked (Article 101(3)(b) EPC).
Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The patent is revoked.

The Registrar: 

The Chairman:

A. Vottner 
S. Crane
Case Number: T 0982/07 - 3.2.01

DECISION
of 12 March 2009 correcting an error in the decision of the Technical Board of Appeal 3.2.01 of 23 October 2008

Appellant I:
(Opponent 01)
Flinter Groningen B.V.
Groningerweg 13d
NL-9765 TA Paterswolde (NL)

Representative:
Grootscholten, Johannes A.M.
Arnold & Siedsma
Sweelinckplein 1
NL-2517 GK The Hague (NL)

Appellant II:
(Opponent 02)
Wijnne & Barends'Cargadoors-en
Agentuurkantoren B.V.
Handelskade Oost 5
NL-9934 AR Delfzijl (NL)

Representative:
Winckels, Johannes Hubertus F.
Vereenigde
Johan de Wittlaan 7
NL-2517 JR Den Haag (NL)

Respondent:
(Patent Proprietor)
OY Langh Ship AB
Alaskartano
FI-21500 Piikkiö (FI)

Representative:
Westerholm, Carl Christian
Kolster Oy Ab,
Iso Roobertinkatu 23
P.O. Box 148
FI-00121 Helsinki (FI)

Decision under appeal:
Interlocutory decision of the Opposition

Composition of the Board:

Chairman: S. Crane
Members: J. Osborne
T. Karamanli
In application of Rule 89 EPC 1973 the decision of 23 October 2008 is hereby corrected as follows:

Page 14, paragraph 3.1.3 should read:

"In view of the above, PR1 does not disclose the subject-matter of claim 1 and, therefore, the requirement for claiming priority in respect of the same invention referred to in Article 87(1) EPC 1973 is not fulfilled."

The Registrar: The Chairman:

A. Vottner S. Crane