

Publication in the Official Journal ~~Yes~~ / No

File Number: T 188/90 - 3.2.3
Application No.: 82 306 553.7
Publication No.: 0 081 388
Title of invention: Transportable bridge structure

Classification: E01D 15/12, B63B 27/14

D E C I S I O N
of 2 December 1991

Proprietor of the patent: Williams Fairey Engineering Ltd
Opponent: Dornier GmbH

Headword:

EPC Articles 56, 100

Keyword: "Tidying up of a granted Claim 1 (refused); inventive step (yes)"

Headnote



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Boards of Appeal

Chambres de recours

Case Number : T 188/90 - 3.2.3

D E C I S I O N
of the Technical Board of Appeal 3.2.3
of 2 December 1991

Appellant :
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Decision under appeal : Interlocutory decision of the Opposition Division
of the European Patent Office dated
15 December 1989 concerning maintenance of
European patent No. 0 081 388 in amended form.

Composition of the Board :

Chairman : C.T. Wilson
Members : F. Brösamle
M. Schar

Summary of Facts and Submissions

- I. European patent No. 0 081 388 was granted on 24 June 1987 with eight claims in response to European patent application No. 82 306 553.7, filed on 8 December 1982.

Granted Claim 1 reads as follows:

"1. A bridge module (30,31) comprising two longitudinal main girder structures (32) and an intermediate deck (33) having a deck surface, the main girder structures being foldably connected one along each side of the deck and being foldable between an operative position in which the main girder structures offer extensions of the deck surface on either side of the deck for use and a closed position in which the main girder structures are folded beneath the deck, characterised in that the deck comprises two lip portions (37) and in that each of the main girder structures comprises a shoulder portion (38), each of which lip portions bears on a respective one of the shoulder portions when the module is in the operative position."

- II. A notice of opposition to this patent was filed on 18 March 1988 by Dornier GmbH (Appellant in the following) requesting that the patent be revoked in its entirety on the grounds of Articles 52(1) and 56 EPC, in particular in the light of:

(D1) DE-A-2 850 849

(D2) Brochure: Krupp Stahlbau "The S-Bridge-high performance military bridging equipment", 1977 and

(D3) DE-A-2 846 182.

Evidence submitted after the expiry of the time limit for giving notice of opposition:

- (D4) "Militärtechnik", 2/1980, pages 99 to 101
- (D5) DE-A-2 930 349 and
- (D6) EP-A-0 075 671.

III. The Proprietor (Respondent in the following) filed an amendment to granted Claim 1, in that the words "so that a load applied to the deck surface is transferred directly to the said shoulder portions" were added to granted Claim 1, whereby a corresponding amendment was made in the opening of the granted description, see column 2, line 10.

The Opposition Division informed the parties in accordance with Rule 58(4) EPC that it intended to maintain the patent on the basis of documents as set out in the "Communication pursuant to Rule 58(4) EPC" dated 29 May 1989; the Appellant, however, disapproved of the text communicated by the Opposition Division, Rule 58(5) EPC, and held that the subject-matter of amended Claim 1 is deprived of an inventive step, thereby newly introducing (D6).

IV. By an interlocutory decision within the meaning of Article 106(3) EPC dated 15 December 1989 the Opposition Division maintained the patent in amended form on the basis of the documents specified in the "Communication pursuant to Rule 58(4) EPC" dated 29 May 1989.

V. The Appellant filed a notice of appeal together with the grounds of appeal on 9 February 1990, paying the appeal fee in due time. He held that the subject-matter of amended Claim 1 is not based on an inventive step so that the patent should be revoked. The document

(D7) US-A-2 636 197

was cited for the first time and included into the argumentation of lacking inventive step.

VI. The Respondent maintained that the prior art would not deprive the claimed subject-matter of an inventive step in the meaning of Articles 56 and 100(a) EPC. It was moreover held that all late-filed documents should not be considered by the Board, since with "due diligence" all documents could have been cited in due time, Rule 55(c) EPC; it was moreover felt that the Appellant had introduced "new grounds of opposition or appeal" being in fundamental contradiction to the principles of the EPC. As a consequence the Respondent requested an apportionment of costs for preparing and filing the replies before the Opposition Division and the Board of Appeal, including the costs for translations.

VII. With a communication of 31 October 1991 the Board gave its provisional opinion about amended Claim 1 thereby pointing to the decision T 127/85, published in OJ EPO 1989, 271, and to the fact that

(D7-GB) GB-A-665 986

is largely identical with late-filed (D7) and that in the oral proceedings the question essentially of inventive step will have to be dealt with.

VIII. In the oral proceedings before the Board the Respondent defended the case according to the main request on the basis of documents underlying the impugned decision; according to a first subsidiary request the maintenance of the patent in its granted form is requested, whereby in a second subsidiary request the bridge module of granted Claim 1 should be restricted to a "land" bridge module.

The Respondent requested furthermore that his costs of the opposition and appeal proceedings including translation costs should be paid by the Appellant, who by late-filing documents would have caused the occurrence of these costs.

The Appellant requested to revoke the patent pursuant to all requests of the Respondent due to lack of inventive step of its subject-matter. It was maintained by him that the ground of opposition was not changed and that he had not - by an abuse of the proceedings - caused extra costs to the Respondent. The Appellant requests moreover that each party should pay its own costs as foreseen in Article 104(1) EPC.

At the end of the oral proceedings before the Board the Chairman gave the Board's decision.

Reasons for the Decision

1. The appeal complies with Article 106 to 108 EPC and Rule 64 EPC and is admissible.
2. Main request
 - 2.1 As set out under point III. above, the amended Claim 1 is distinguished from granted Claim 1 by the functional term "so that a load applied to the deck surface is transferred directly to the said shoulder portions", which term is derived from column 2, lines 13 to 19 and from column 5, lines 5 to 8 of the attacked patent.
 - 2.2 Seen as a whole (Article 69 EPC) the attacked patent has already contained the teaching that the hinges are free of strain, since the lip/shoulder arrangement obviously takes

up the load directly. The functional term under discussion does therefore not constitute an allowable restriction of granted Claim 1, but has to be seen as a "cosmetic" modification, not linked to a ground of opposition in the meaning of Article 100 EPC and is nothing other than an attempt "to tidy up" the patent, see decision T 127/85 published in OJ EPO 1989, 271, which attempt was held in that decision to be an abuse of the opposition proceedings, see remark 7.1.

2.3 Summarising, the Board is of the opinion that amended Claim 1 according to the main request has to be rejected for the reasons set out above in detail.

3. First subsidiary request (granted Claim 1)

3.1 Granted Claim 1 combines the features of originally filed Claims 1 and 7 and is not open to an objection under Article 123(2) EPC.

Granted Claims 2 to 8 correspond to originally filed Claims 2 to 6, 8 and 9, so that their features are originally disclosed.

Since the granted Claims 1 to 8 according to the first subsidiary request are maintained unamended they also meet the requirements of Article 123(3) EPC.

3.2 Of the documents (D1) to (D7-GB) and (D7), the documents D4 to D7 were filed after the time limit for giving notice of opposition. The Respondent requested repeatedly that these documents not be considered, for that reason. The Appellant has, however, pointed to the decision T 156/84, published in OJ EPO, 1988, 372, in which decision it is clearly set out that the principle of examination by the EPO of its own motion, Article 114(1) EPC, takes

precedence over the possibility of disregarding facts or evidence not submitted in due time. Background of this legal standpoint is the fact that the public should not be confronted with a patent which the EPO is convinced is not legally valid.

Following the principles developed in the above-cited decision the request of the Appellant for not considering all of the late-filed documents has to be rejected with the exception of (D7). (D7) is more or less equivalent to (D7-GB), referred to in the Search Report and discussed in the attacked patent in column 1, lines 27 to 32, so that (D7-GB) has to be considered instead of (D7).

Summarising, the Board considers (D1) to (D7-GB) in the following:

- 3.3 Granted Claim 1 is based on a "bridge module" which term comprises a "floating" bridge and also a "land" bridge. If Claim 1 is, however, seen in the light of the description and drawings of the attacked patent (Article 69 EPC) it is immediately and unambiguously clear that a land bridge module and nothing else is dealt with in the attacked patent, see column 1, lines 44 to 48 and Figures 23A to 23F in particular. Even when in Figures 20 and 22E a floating deck "81" is disclosed, the bridge module has to be seen as a land bridge module, since it rests on two points, (one of which may be the floating deck), and freely spans the distance in between, which is typical for a land bridge.
- 3.4 Bearing the remarks of 3.3 above in mind, the nearest prior art is (D1) from which document the features of the pre-characterising clause of Claim 1 are known, see Figures 2, 7 and 9 of (D1) and references signs "2,3", "7" and "9/12" in particular, if one comes to the conclusion

that the parts "4,4,4" of (D1) (called "Querträger") are equivalent to an intermediate deck; if not then (D6) has to be dealt with as the nearest prior art document, since there an intermediate deck "12" is clearly disclosed.

3.5 Notwithstanding the fact whether (D1) or (D6) is acknowledged as the starting point of the invention, it has to be accepted that the load transfer between the intermediate deck and the main girder structures of (D1) and (D6) involves the hinges "14" in (D6) and "9,12" in (D1). Considering the heavy loads - military applications according to column 1, lines 11 to 14 of the attacked patent - to be supported by the bridge module, the teaching of the nearest prior art documents is not very favourable so that the objective problem to be solved by the invention is to improve the known constructions in respect of a favourable load transfer within the bridge module comprising pivotable girders.

3.6 According to the characterising clause of Claim 1 this objective problem is solved:

- (a) by two lip portions comprised by the intermediate deck,
- (b) two shoulder portions on the main girder structures,
- (c) the lip portions bearing on the respective shoulder portions when the bridge module is in its operable position.

3.7 By this solution of the objective problem of the invention it is achieved that a load applied to the deck surface is directly transferred to the shoulder portions of the main girder structures so that the hinges are free from strain,

see attacked patent column 5, lines 5 to 8 and column 2, lines 13 to 19.

- 3.8 Since the two-part form, Rule 29(1)(a) and (b) EPC, of granted Claim 1 correctly reflects what is known and what is not known from (D1) respectively from (D6), it follows therefrom that the claimed bridge module is novel. Novelty not being drawn into doubt in the opposition and appeal proceedings this issue needs no further argument (Article 54 EPC).
- 3.9 The subject-matter of granted Claim 1 being novel it has to be decided whether or not it is based on an inventive step in the meaning of Article 56 EPC:
- 3.9.1 Of the documents (D1) to (D7-GB) only (D1), (D6) and (D7-GB) concern foldable bridge modules, since (D2), (D3), (D4) and (D5) concern bridge modules which cannot be folded from an operative position to a closed position. From (D5), however, a central deck is known, see essentially its Figure 5 near the reference hooks for signs "18", which has lips bearing on neighboured shoulder portions of main girder structures "17, 19, 26". In accordance with the statement of the Appellant in the oral proceedings before the Board, the Board is of the opinion that the corrugated parts of the bridge module are the parts on which the load of a tank acts, see Figures 7 and 5 of (D5) in particular; this has as a consequence that the uncorrugated parts are free from load and that these parts are nothing other than fillers between the load supporting structures. (D5) in combination with a pontoon and not with a land bridge discloses therefore that a lip/shoulder arrangement is known per se, not more, since in (D5) the purpose of the lip/shoulder arrangement cannot be compared with the purpose in combination with a foldable bridge module as in granted Claim 1.

That only the corrugated parts of the bridge module of (D5) are the load-bearing elements, is emphasised by the existence of struts "19" exactly in this area, see Figure 5 of (D5).

3.9.2 Though a lip/shoulder arrangement per se is known in bridge modules it has still to be decided whether or not such an arrangement would be obvious in combination with a foldable bridge module.

Foldable bridge modules are known from (D1), (D6) and (D7-GB).

3.9.3 A skilled person would derive from (D6), see Figure 2, that the hinges "14,14" have to be specifically strengthened by triangular sheets to be able to withstand the applied load. This is, however, not the teaching of Claim 1 which is completely different therefrom in that the hinge is not strengthened, but an arrangement is foreseen to keep the hinges free from strain i.e. by the provision of direct load transferring elements in form of co-acting lips and shoulder portions.

3.9.4 It is clear that the situation laid down in (D1) is not more favourable for the hinges to be free from strain, since again any load on the intermediate parts "4,4,4" acts on the hinge "9,12". With respect to (D7-GB) again the hinge "6", see Figure 12, is not kept free from strain by the provision of a lip/shoulder arrangement as in granted Claim 1.

3.9.5 Due to the fact that the provision of a load transfer mechanism according to granted Claim 1 has to combine the contradictory requirements

(a) that the arrangement should act as a direct load transfer element and

(b) that it should concomittently allow folding,

it cannot be expected that a skilled person confronted with the objective problem to be solved by the invention, see 3.5 above, would consider a lip/shoulder arrangement in combination with a foldable bridge module as the means to improve the strain situation of the hinges, since the prior art, see (D6), teaches away from this idea.

3.9.6 In the appeal stage (D7) in its version (D7-GB) was made the subject of an objection under Article 56 EPC by the Appellant.

(D7-GB) inter alia discloses a land bridge, see its Figures 7/8, however, without a possibility to fold the module from an operative into a closed position. In (D7-GB) hinges are only foreseen in the alternative of a pontoon bridge. A pontoon bridge is, however, not comprised by granted Claim 1, see 3.3 above, if this claim is seen in the light of the attacked patent as a whole.

Beyond this particularity of (D7-GB) it has to be observed that the wheels "8,11" according to Figure 12 thereof prevent application of a load to the external parts "5,5", whether the latter can be considered as "main girder structures" or not, so that the load is solely supported by the central element "1" according to Figures 12 and 5 of (D7-GB) and the hinge "6" has nothing to do with a load transfer, but only with folding the bridge module to a closed position as in Figure 2 thereof, i.e. to be ready for transportation purposes.

As far as (D7-GB) is concerned, however, the land bridge, see Figure 7/8 thereof, includes no hinges, but three central decks "1,1,1", two of them acting without any doubt as "main girder structures". The latter alternative of (D7-GB) has, however, nothing to do with the foldable bridge module of granted Claim 1.

3.9.7 It has been developed above that the documents (D1) to (D7-GB) even when combined with the knowledge of an average engineer do not give a direct lead to the bridge module of Claim 1; even if a skilled person confronted with the objective problem to be solved would try to combine the documents to be considered, he would not arrive at the subject-matter of the independent claim.

The combination of (D1) and (D5) was felt by the Appellant to render obvious the claimed solution to the objective problem.

In (D1) there is not foreseen an intermediate deck and in (D5) a possibility of folding the bridge module is missing, so that the skilled person would have to decide whether the parts "4,4,4" of (D1) are upheld or the intermediate deck "26", see Figure 7 of (D5), which is a mere filler element not envisaged to take up any load. It is true that the bridge module of (D1) is foldable; it has to be considered, that prior to folding, the bolts "8,13" (see Figure 7 of (D1)) have to be replaced to allow the bolts "9,12" to act as a hinge. In the operative position of the bridge module - as can be seen from Figure 7 of (D1) - the bridge module, is, however, not foldable. When combining (D1) and (D5) it would have to be decided whether or not the pivot arrangement of (D1) could be upheld or had to be replaced by an easier construction as seen from (D7-GB), i.e. with one pivot axis only.

When combining (D7-GB) with (D5) it would have to be decided by the skilled person which arrangements had to be made for maintaining the possibility of folding the bridge module even in combination with a lip/shoulder construction. This is not an easy matter, since the lip/shoulder arrangement has to be so chosen that the clearance allows at the same time a direct load transfer (= no clearance at all) and a foldability (= appreciable clearance between lips and shoulder portions). Without any comparable teaching in this direction in the prior art to be considered it cannot be expected from a skilled person not knowing the invention that he would come to the claimed bridge module.

- 3.10 As a result of the foregoing the Board comes to the conclusion that a skilled person would not derive from (D1) to (D7-GB) whether singly or in any combination a useful hint for solving the objective problem of the invention in a sense as set out in granted Claim 1 without interpreting these documents ex post facto.
- 3.11 As a consequence of the foregoing considerations the Board is convinced that granted Claim 1 is valid; it results therefrom that there is a basis for maintaining the attacked European patent No. 0 081 388 (Articles 56 and 100(a) EPC).
4. The Board is convinced that Appellant's arguments do not constitute new grounds of opposition and that it has the competence to decide on the validity of the attacked patent wherefore the case need not be remitted to the first instance because the opponent is in no danger to lose one level of jurisdiction (Article 111(1) EPC).

5. Second subsidiary request

The first subsidiary request being allowable, the second subsidiary request has not to be dealt with.

6. The Respondent requested an apportionment of costs, since the Appellant by not acting with "due diligence" caused costs both in opposition and appeal proceedings, including translation costs.

6.1 As a general principle in opposition proceedings - the appeal proceedings can be considered as a continuation of the former proceedings - each party shall meet the costs he has incurred, Article 104(1) EPC. Only in cases of an abuse of the proceedings can a different apportionment of costs be envisaged, but then only "for reasons of equity".

6.2 The Respondent has amended Claim 1 and the opening of the description, see documents underlying the impugned decision. He has again amended Claim 1 according to the second subsidiary request in the appeal proceedings. It is quite clear that in this context the Appellant/Opponent can claim the same rights i.e. to modify his argument including the filing of new evidence for reasons of equity, since he basically cannot react before the Respondent has acted. Even if filed after the time limit for giving notice of opposition, such evidence cannot a priori be considered as late filed and as an abuse of the proceedings, since it is general practice that the EPO should not maintain a patent which is invalid (see: T 156/84, OJ EPO 1988, 372).

6.3 In the present case the Appellant has cited (D4) to (D6) "late". (D7-GB) has to be considered, however, as prior art already discussed in the pre-appeal proceedings. A total of only seven documents is moreover a clear sign that no abuse of the proceedings has occurred. The

Respondent must also accept the argument against him that extra costs were also caused by modifying Claim 1 in two instances.

- 6.4 As a result of the foregoing, the principles laid down in the decision T 117/86, published OJ EPO 1989, 401 cannot be used in the present case, so that the Board decided in the oral proceedings to reject the request for an apportionment of costs.

Order

For these reasons, it is decided that:

1. The impugned decision is set aside.
2. The main request is rejected.
3. The case is remitted to the first instance with the order to maintain the patent as granted (first subsidiary request).
4. The request for an apportionment of costs is rejected.

The Registrar:



N. Maslin

The Chairman:



C.T. Wilson