Datasheet for the decision
of 03 May 2011

Case Number: T 1006/08 - 3.4.02
Application Number: 97306376.1
Publication Number: 825425
IPC: G01G19/393
Language of the proceedings: EN

Title of invention:
Weighing system

Applicant:
YAMATO SCALE CO., LTD.

Opponent:
Multipond Wägetechnik GmbH

Headword:

Relevant legal provisions:
EPC Art. 56

Keyword:
Inventive step (yes) - -

Decisions cited:

Catchword:
Case Number: T1006/08 - 3.4.02

DECISION
of the Technical Board of Appeal 3.4.02
of 03 May 2011

Appellant: Multipond Wägetechnik GmbH
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Decision under appeal: Decision of the opposition division issued 28
March 2008 rejecting the opposition against
European Patent EP-B-825425

Composition of the Board:
Chairman: A. Klein
Members: M. Stock
D. S. Rogers
Summary of Facts and Submissions

I. The opponent lodged an appeal against the decision of the opposition division rejecting the opposition against European Patent number 0 825 425 (application number 97 306 376.1).

II. The following documents, inter alia, were referred to in the appeal proceedings:

D1: EP 0 319 202 A2


D16: DE 44 04 892 A1

The opponent also relied on a prior use, "V1", evidenced by documents V1.1 to V1.13 filed at various stages of the proceedings.

III. The opposition division inter alia stated in its decision that no decision on the availability to the public of the prior use V1 needed to be taken as the subject-matter of the claims of the granted patent was patentable even in the light of that prior use.

IV. The opponent requested revocation of the patent in its entirety. Its arguments as relevant to the present decision can be summarised as follows:
The subject-matter of claim 1 as granted clearly lacks novelty over the contents of document D16.

Even if document D16 was not considered to teach the feature of the program transferring means for transferring an execution program to the individual weighing driving sections through the LAN disclosed there, this could not provide inventive step. The use of such program transfer means was indeed well-known to the skilled person, as evidenced for instance by document D1 (see in particular page 4, lines 30 to 34 in connection with Fig.4).

D16 should be admitted in the procedure although it was filed at a very late stage of the appeal proceedings, with the letter dated 30 October 2009. Not only is this document very relevant, but there were exceptional circumstances which had led the opponent to overlook it in its earlier searches, even though it is one of its own patent applications. These circumstances were that the inventor named in document D16 was no longer with the opponent, the application had been filed by a different firm of patent attorneys, and it had been abandonned before the start of any examination.

V. The patent proprietor requested that the decision of the opposition division be upheld and the appeal be dismissed. It further requested that, if document D16 be admitted into the proceedings, the case be remitted to the first instance for further prosecution and, auxiliarily, that the patent be maintained on the basis of a set of claims filed at the oral proceedings before the Board.
The patent proprietor's arguments as relevant to the present decision can be summarised as follows:

The invention as claimed in claim 1 of the opposed patent concerns a weighing system having a plurality of weighing units which formed a combination scale.

The problem addressed by the present invention was to improve the flexibility of use of a conventional combination scale. This was achieved by the features of the characterising portion of claim 1, namely:

(A) a LAN for mutually connecting the plurality of weighing driving sections and the weighing control unit; and

(B) wherein the weighing control section of the weighing control unit had program transferring means for transferring an execution program to the plurality of weighing driving sections through the LAN.

Advantages of incorporating features (A) and (B) were set out in paragraphs [0008] to [0010] and [0035] of the contested patent, and included:

(i) where the program of the weighing driving section of the weighing unit was upgraded, the upgraded program could be transferred from the weighing control section to the plurality of weighing driving sections over the LAN at high speed; and

(ii) the number of weighing units could be easily increased or decreased, allowing flexibility of the configuration of the combination scale.
Document D16 has been filed late by the opponent without any proper justification. Should the Board nevertheless be minded to admit it into the procedure and consider it to be prejudicial to the maintenance of the patent, the case should be remitted to the opposition division to allow for the filing of amended claims addressing the disclosure of the document and consideration of their allowability by two instances.

In any case and in addition to the question of whether the CAN bus known from document D16 constitutes a LAN, the question of whether the weigher of document D16 has "program transferring means for transferring an execution program to the weighing driving section (12) through the LAN (23)" as claimed in claim 1 also needs to be addressed. In particular "program transferring means" are described in the present patent, paragraph 32, which mentions how upgrading of the execution programs in the driving control sections can be performed without the need of exchanging the programs at each of the driving sections, thereby simplifying the upgrading. In contrast, document D16 only states that using a standardised interface makes the programming of the computer provided in the control unit easier. This simply means that the computer programmer did not need to program a bespoke interface. There is no suggestion of the transfer of execution programs over the interface. Therefore document D16 does not disclose the claimed "program transferring means" indicated in present claim 1.

Document D1 on the other hand is related to a type of weighing system very different from a combination scale. Multiple digital load cells forming one or more weighing scales were connected together and to a common
master controller in a LAN. A master controller 130 was connected to the load cells 20, via a junction box 127, to constitute a LAN. It was stated that the LAN preferably utilised the Intel BITBUS communication system. Even if the skilled person consulted document D1, the skilled person would not necessarily arrive at the claimed invention, particularly because document D1 did not disclose transferring executable programs over the Intel BITBUS. In particular, the passage referred to by the opponent on page 4, lines 30 to 34 only addressed the transfer of data from the master controller, not of programs. Therefore the subject-matter of claim 1 involved an inventive step.

VI. Oral proceedings were held before the Board on 3 May 2011 at the end of which the Board announced its decision.

VII. Claim 1 of the patent proprietor's main request reads as follows:

1. A weighing system comprising:
   a plurality of weighing units (11) forming a combination scale;
   a weighing driving section (12) provided on each of the weighing units (11) for causing the weighing unit (11) to perform weighing operation;
   a weighing control unit (26) including a weighing control section(26a) for controlling the weighing driving section (12), and an operation indicating section (26b) for setting operating conditions of the weighing system and for displaying an operation state; characterised in that the system further comprises
a LAN (23) for mutually connecting the plurality of weighing driving sections (12) and the weighing control unit (26);
and wherein the weighing control section (26a) of the weighing control unit (26) has program transferring means for transferring an execution program to the weighing driving section (12) through the LAN (23).

Claim 1 of the patent proprietor's auxiliary request reads as follows:

1. A weighing system comprising:
a plurality of weighing units (11) forming a combination scale;
a weighing driving section (12) provided on each of the weighing units (11) for causing the weighing unit (11) to perform weighing operation;
a weighing control unit (26) including a weighing control section(26a) for controlling the weighing driving section (12), and an operation indicating section (26b) for setting operating conditions of the weighing system and for displaying an operation state;
characterised in that
the system further comprises
a LAN (23) for mutually connecting the plurality of weighing driving sections (12) and the weighing control unit (26);
and wherein the weighing control section (26a) of the weighing control unit (26) has program transferring means for transferring an execution program to the weighing driving section (12) through the LAN (23),
wherein the weighing control section (26a) of the weighing control unit (26) has a self-diagnostic function of detecting abnormalities of the LAN (23).
Reasons for the Decision

1. The appeal is admissible.

2. In agreement with the preliminary analysis presented by the Board in the annex to the summons to oral proceedings on the admissibility into the procedure of the late-filed documents, documents D11 and D14 are admitted in the procedure since they consist of excerpts from textbooks or technical documentation merely illustrating common general knowledge in relation to the technical meaning of the "LAN" feature, and reference to which is considered justified in the circumstances, taking into account the fact - not contested by the parties - that the patent itself lacks any precise definition of the latter feature.

Document D16 can also be admitted into the procedure despite its late filing. Document D16 indeed relates to a combination scale which is closely similar to the scale, prior use of which was alleged by the opponent. This document in fact is a patent application filed by the opponent itself for the very object of the prior use relied upon throughout both the opposition and appeal procedures. Although the opposition division did not deem it necessary to reach a final decision on the availability to the public of this prior use, the technical relevance to the question of the patentability of the claimed subject-matter of the features of the scale of the alleged prior use was discussed at length before the opposition division, which in its decision judged the claimed subject-matter to be patentable even in consideration of the alleged prior use; see e.g. points 5.2, 5.5 and 5) of the grounds). Therefore the admission of document D16 into
the proceedings does not in substance modify the case in dispute.

In the Board's view it would also not be expedient to remit the case to the opposition division for consideration of document D16 as was requested by the patent proprietor, because - as explained above - the opposition division in effect already ruled on the relevance of this prior use.

In addition document D16 was discussed by the opponent in its letter dated 30 October 2009, and its potential relevance against the patent could also be gathered from the Board's preliminary comments in its annex to the summons to oral proceedings issued on 18 November 2010, giving the patent proprietor ample time to react.

3. Employing the terminology used in claim 1 according to the main request, document D16, Figure 1 with the associated description discloses a weighing system comprising:
   a plurality of weighing units (14, 16) forming a combination scale (10);
   a weighing driving section (microcontroller via interfaces 68 and 72, which may be active, see column 3, lines 51-52 and column 8, lines 12-18) provided on each of the weighing units (14, 16) for causing the weighing unit (10) to perform weighing operation;
   a weighing control unit (60) including a weighing control section (62) for controlling the weighing driving section (66, 70), and an operation indicating section (74) for setting operating conditions of the weighing system and for displaying an operation state (column 5, lines 31-36); and a LAN (CAN Bus 64) for mutually connecting the plurality of weighing driving
sections (66, 68; 70, 72) and the weighing control unit (60).

4. At the oral proceedings it was no longer contested that a CAN-Bus ("Control Area Network"-Bus) is covered by the definition of a LAN ("Local Area Network"). In any case, according to document D14, see Footnote 7, a "Fieldbus" is a special variant of a LAN. According to D11, see page 3, last paragraph, a CAN-Bus is a "Fieldbus". This leads to the conclusion that a CAN is a LAN.

5. The opponent has argued that D16, see column 3, lines 34-59, also disclosed the last feature in present claim 1, namely that the weighing control section of the weighing control unit has program transferring means for transferring an execution program to the plurality of weighing driving sections through the LAN, referring in this respect to the teaching in the document that packages or messages were sent between each single weighing unit and the central weighing control section, and to the presence in the known device of microcontrollers and memory devices which could potentially be used for performing the claimed transfer.

The Board is, however, of the opinion that the reference in claim 1 to means for transferring an execution program must be interpreted as calling for means which are actually connected and programed so as to perform the indicated function, not merely as means which could potentially perform it, were they adequately connected and programed. There is no indication however in D16 that any exchange of an execution program of the weighing driving section might
be performed via the LAN, as was correctly stated by the patent proprietor.

6. Therefore the subject-matter of claim 1 as granted differs from what is disclosed in Document D16 in that the weighing control section of the weighing control unit has program transferring means for transferring an execution program to the weighing driving section through the LAN. The technical problem solved by these features addresses easy exchange of a program to be executed by each weighing driving section, see the patent, paragraphs 6 and 35.

7. Document D1, see the abstract and Fig. 1 with the associated description, discloses multiple digital load cells (DLC) forming one or more weighing cells connected together and to a common master controller in a LAN (bus 30). The weight readings of the single load cells are combined with a load position correction factor for each load cell and summed to provide a weight indication corrected for load position. The system of D1, see Fig. 4 and page 4, lines 30 to 34, includes also microprocessors 80 with a memory 80a for storage of programs received via the LAN (bus 30) from master controller 34.

8. A person skilled in the art starting from the weighing device of document D16 and facing the above technical problem, i.e. to provide easy exchange of execution programs, thus receives the information from D1, that program transfer can be initiated by the weighing control section (keyboard) of the weighing control unit (master controller 34 with monitor and keyboard in Fig. 1) and carried out by transferring means (microprocessors 80 in Fig. 4) for transferring an
execution program to each weighing driving section (load cell 20 and switch 68 in Fig. 4) through the LAN (Bitbus 30).

9. It was therefore obvious for the skilled person to make use of the information disclosed in D1 and to provide the weighing control section of the weighing control unit described in D16 with transferring means for transferring an execution program to the plurality of weighing driving sections through the LAN, arriving thus at the subject-matter of claim 1 according to the main request.

10. The patent proprietor in this respect submitted that the skilled person would not consider document D1 since it did not relate to a combination scale as disclosed in Document D16, but to a quite different multiple load cell scale.

In the Board’s view, however, the technical problem to be solved upon consideration of document D16 relates quite generally to the programming of individual weighing driving sections units connected in a LAN with a weighing control unit. This programming problem is independent of the actual function of the individual sections, and arises in the same manner when these form individual sections of a combination scale as in Document D16 or individual sections of a multiple load cell scale as in document D1.

11. The patent proprietor further submitted that the passage on page 4, lines 30 to 34 of document D1 according to which "Microprocessor 80 is provided with memory 80a ... for storage of programs and of data received from A/D converter 70 and from master controller 34" only disclosed the reception from a
master controller (through the LAN) of data, not of programs.

This argument is also not considered to be convincing because, as was submitted by the opponent at the oral proceedings, Fig. 4 of document D1 to which the mentioned passage of the description refers, does not show any other access to the memory 80a suitable for transferring programs than from the LAN 30 via serial interface unit 80b.

12. Therefore, the Board concludes that the subject-matter of claim 1 according to the patent proprietor's main request does not involve an inventive step within the meaning of Articles 52(1) and 56 EPC.

13. Claim 1 according to the patent proprietor's auxiliary request 1 filed at the end of the oral proceedings before the Board is a combination of claims 1 and 2 as granted. The opponent argued that the auxiliary request was filed too late and should therefore not be admitted into the proceedings. The proprietor argued that the opponent should be prepared to discuss a combination of the main claim with a dependent claim at any stage of the proceedings. This would be the natural fall-back position, if the main claim cannot be defended.

14. In the Board's view the auxiliary request filed by the patent proprietor at a very late stage of the appeal procedure, in fact only towards the end of the oral proceedings on 3 May 2011, shall not be allowed into the procedure.

First, this request is not prima facie allowable since it introduces new limitations concerning the detection of abnormalities of the LAN, that are not related to
the transferring of programs. The request thus amounts to a new case presented at the last possible moment in the appeal procedure.

Second, as indicated above in connection with the admissibility of Document D16, the Board in its annex to the summons to oral proceedings dated 18 November 2011 expressed doubts as to the patentability of the subject-matter of the granted claims in view of the disclosure in documents D16 and, inter alia, D1 (see the last paragraph of point 3). The proprietor of the patent thus had ample time to present alternative requests, and to present arguments concerning their allowability.

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:

M. Kiehl A. Klein