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D E C I S I O N
of 4 February 1998

Case Number: T 0483/96 - 3.2.3

Application Number: 91301336.3

Publication Number: 0443830

IPC: B62D 11/18, E02F 9/14, E02F 3/34

Language of the proceedings: EN

Title of invention:
Loader vehicle

Patentee:
J.C. Bamford Excavators Limited

Opponent:
Macmoter S.p.A.

Headword:
-

Relevant legal provisions:
EPC Art. 56

Keyword:
"Inventive step - yes"

Decisions cited:
-

Catchword:
-



Case Number: T 0483/96 - 3.2.3

DECISION
of the Technical Board of Appeal 3.2.3
of 4 February 1998

Appellant:
(Opponent) Macometer S.p.A.
Via Spazzoli, 48
47015 Modigliana (IT)

Representative: Schieferdecker, Lutz, Dipl.-Ing.
Patentarwalt
Herrnstrasse 37
63065 Offenbach (DE)

Respondent:
(Proprietor of the patent) J.C. Bamford Excavators Limited
Rocester
Uttoxeter
Staffordshire ST14 5JP (GB)

Representative: Leach, John Nigel
Forrester & Boehmert
Franz-Joseph-Strasse 38
80801 München (DE)

Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 2 April 1996
rejecting the opposition filed against European
patent No. 0 443 830 pursuant to Article 102(2)
EPC.

Composition of the Board:

Chairman: C. T. Wilson
Members: J. B. F. Kollar
M. K. S. Aúz Castro

Summary of Facts and Submissions

I. European patent No. 0 443 830 was granted with sixteen claims on 23 November 1994 on the basis of European patent application No. 91 301 336.3.

II. The patent was opposed by the appellant on the grounds of lack of inventive step, Article 100(a) EPC, referring to the prior art which can be derived from documents

(D1) DE-A-3 522 723

(D2) US-A-4 705 449

(D3) EP-A-258 819

(D4) DE-U-6 610 675

(D5) Firm pamphlet issued by the firm, Kramer, "Kramer Allrad 314 Turbo", printing year 1988

(D6) CH-A-390 792

Lack of inventive step was alleged on the basis of each of the above documents.

The patent proprietor (respondent) referred to

(D7) "Operator's manual" published by Clark Equipment Company, 1985

which illustrates the vehicle shown in the drawings of D1.

III. The opposition division came to the conclusion that the subject-matter of the patent was not obvious in view of the entire state of the art according to documents D1 to D7. By a decision dispatched on 2 April 1996, the opposition division rejected the opposition.

IV. An appeal against this decision was lodged on 24 May 1996, the appeal fee being paid on the same day, and the Grounds of Appeal being filed on 11 July 1996. Reference was made to a further document

(D8) DE-A-3 546 078

which shows the subject-matter of D5.

V. Together with observations on grounds of appeal the respondent filed a new claim 1 on 4 December 1996. Further minor amendments to the claims were made in oral proceedings held on 4 February 1998. The claim reads as follows:

"1. A loader vehicle (10) comprising, a body (11) having a front end (12) and a rear end (13) and provided with ground engageable propulsion means (14), an operator's compartment (22) provided at a fixed location on the body (11), and a boom assembly (40) which is pivotally mounted, at an inner end (43) thereof, on the body (11), adjacent the rear end (13) thereof, for movement between a raised position and a lowered position in which the boom assembly (40) extends forwardly alongside the operator's compartment (22) and a material handling implement (48) carried on an outer end (47) of the boom assembly (40) is disposed forward of the front end (12) of the body (11)

characterised in that

- (i) the boom assembly (40) comprises a generally "L" shaped member having limbs which extend mutually transversely,
- (ii) one limb of the L-shaped member comprising a single lift arm assembly (41) which extends forwardly along one side only of the operator's compartment (22) and
- (iii) the other limb of the L-shaped member comprising a pivot member (42) which is rigid with the lift arm assembly (41),
- (iv) the pivot member (42) projecting from the inner end (43) of the lift arm assembly on one side thereof and extending transversely across the body (11) from one side of the lift arm assembly (41) to a position adjacent the opposite side of the body (11),
- (v) the pivot member (42) being pivotally mounted on the body (11) by pivotal mounting means (44,45) which are spaced apart transversely of the body (11)
- (vi) and are adjacent an upper rear end part of the body (11) on opposite sides of the body (11)."

VI. The arguments presented by the appellant in the written submissions and at oral proceedings can be summarised as follows:

The subject-matter of claim 1, even if formally novel, cannot be regarded as involving an inventive step in the light of the disclosure of documents D1 or D2 and D8.

With reference to column 1, lines 17 to 21 of the patent specification according to which the problem to be solved by the invention is to provide a loader vehicle by which access to the operator's compartment can be gained not only from the front by clambering over the material handling implement, the appellant argues that this problem has already been solved by the loader vehicle disclosed in D8 which forms the closest prior art. As to the boom assembly and its arrangement on the loader vehicle specified in claim 1, the appellant takes the view that the person skilled in the art starting from D8, which in addition to the features corresponding to those of the preamble of claim 1 discloses a boom assembly comprising a single lift arm extending forwardly along one side only of the operator's compartment, would not need to carry out any inventive activity in applying the whole of the characterising features of claim 1 in view of the teaching of D1 or D2 and his practical knowledge.

VII. The counterarguments presented by the respondent can be summarised as follows:

D8 does not disclose anything more than features of the preamble of claim 1. The text of D8 is wholly silent on the manner of mounting of the boom assembly and there is no teaching of any of the characterising features of claim 1.

To provide all the features of the characterising portion of claim 1 is to adopt a completely new direction totally unsuggested by the cited prior art. In particular, there is no suggestion in the cited prior art to arrange the L-shaped boom assembly adjacent an upper rear end part of the vehicle body whilst retaining strength of the vehicle.

The appellant has failed to file any evidence as to what might be the knowledge of one skilled in the art; documents D1 to D8 do not provide any direct examples for those versed in the art to provide a single-arm-boom assembly in the form of a generally L-shaped member having the features set out in the characterising part of claim 1.

In the absence of any teaching in the cited prior art which would lead a skilled person towards the present invention the reasons for appeal are arguments and speculations based on an **ex-post facto** analysis with hindsight knowledge of the claimed invention.

VII. The appellant requests that the decision under appeal be set aside and the patent in suit be revoked.

The respondent requests the appeal be dismissed and the patent be maintained in the following version:

Claims: 1 as filed in oral proceedings;
2 to 16 as granted;

Description: columns 1 and 2 as filed in oral proceedings
columns 3 to 18 as granted;

Drawings: as granted

Reasons for the Decision

1. The appeal is admissible.
2. *Amendments to claim 1*

The terms "limbs which extend mutually transversely" (feature (i)), "one limb" (feature (ii)) and "the other limb" (feature (iii)) introduced in the characterising portion of the valid claim 1 are not *expressis verbis* mentioned in the description but are shown in the drawings as originally filed. These amendments thus comply with Article 123(2) EPC and, being of a restricting nature, do not conflict with Article 123(3) EPC. Claim 1 thus satisfies the requirements of Article 123 EPC.

3. *Inventive step*

3.1 A loader vehicle of the kind specified in the preamble of claim 1 is known from D1. This vehicle has a boom assembly comprising a pair of spaced parallel arms ... which extend on the opposite sides of the operator's compartment. As a result access to the operator's compartment can be gained only from the front of the vehicle. Document D8 discloses another such vehicle wherein a single lift arm assembly extends forwardly along one side only of an operator's compartment. Whilst access can be gained to the operator's compartment from the side opposite to that having the single lift arm assembly such access is provided to a vehicle that has limited strength.

3.2 Starting from the cited prior art the objective problem to be solved by the present invention is to provide a loader vehicle of the kind specified whereby these disadvantages are overcome. It is an inherent

requirement of the present invention to provide a loader vehicle with good stability and with a boom assembly which can be simply manufactured and operated.

3.3 The main question to be considered in the issue of the assessment of the inventive step in the present case is whether the skilled person, in view of the prior art, would find it obvious to apply means falling within the scope of claim 1 in the expectation of improvement of manufacturing and operational characteristics of the loader vehicle.

3.4 This question must be answered in the negative. In view of the established trend in the prior art represented by D1 and D2 the skilled person would not be led to use anything other than two spaced parallel arms when providing for stability of the vehicle. Whilst such a two armed arrangement solves the problem of forces acting on the lifting arm, this problem is not solved in a manner which permits access to the operator's compartment from the side, nor does it permit a simple manufacturing and operation of the boom assembly in that by said arrangement a number of fluid operated rams are required for parallel arms disposed on opposite sides of the cab so that both manufacturing and operation of such lifting assembly is complicated.

The appellant argues that the person skilled in the art starting from D8 would not need to carry out any inventive activity in applying the whole of characterising features of claim 1 in view of D1 and D2 and his practical knowledge. The Board does not agree.

There is no incentive from the cited prior art which would have led the skilled person to the concept of providing a double bearing means with a pivot member extending transversely across the vehicle as claimed by features (i) to (vi) of claim 1. In particular, there

is no suggestion in the prior art that the "upper" region of the loader body should be adopted for an L-shaped boom assembly. The Board considers that the inventive step lies in the arrangement of said features (i) to (vi) and their combination which results in the required strength and simultaneously allows, by virtue of eliminating half of the operating components as compared to the double arm lifting assembly of the prior art, that the loader arm is simple to manufacture and to operate. It does not matter whether individual features are entirely or at least partly known: a combination invention means looking at the features as a whole. One cannot do justice to a combination invention by comparing every individual feature with the prior art; the fact that an individual or several features are known or obvious does not necessarily mean that the claimed combination is anticipated or obvious. With combination patents the question is whether the prior art suggests combining all the features, bearing in mind their functions within that combination. In answering it, it is irrelevant whether the features of the combination are already known individually.

The teaching of the prior art is quite clear. If you wish to support the boom assembly on both sides of the vehicle for stability, use two arms. If you wish access from one side, use a single arm supported on one side. No suggestion of any sort to combine these two teachings is given.

For these reasons, the prior art in question would not have enabled the skilled person to arrive in an obvious way at the combination of features of claim 1.

Claim 1 thus involves an inventive step within the meaning of Article 56 EPC.

4. Since claims 2 to 16 are dependent on claim 1, they too are directed to subject-matter which is inventive, and therefore the patent is to be maintained in the amended form requested by the respondent.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the first instance with the order to maintain the patent in the following version:

Claims: 1 as filed in oral proceedings;
2 to 16 as granted;

Description: columns 1 and 2 as filed in oral proceedings
columns 3 to 18 as granted;

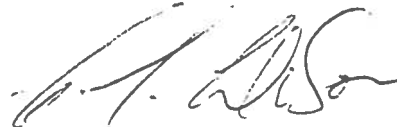
Drawings: as granted

The Registrar:



N. Maslin

The Chairman:



C. T. Wilson

Handwritten notes:
0553.D
AC

