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Datasheet for the decision of 11 October 2007

Case Number: T 0873/05 - 3.2.06

Application Number: 95918315.3

Publication Number: 0768930

IPC: B23B 31/12

Language of the proceedings: EN

Title of invention:
Chuck

Patentee:
POWER TOOL HOLDERS, Inc.

Opponent:
Röhm GmbH

Headword:
-

Relevant legal provisions:
EPC Art. 56

Keyword:
"Inventive step (yes)"

Decisions cited:
-

Catchword:
-

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Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 0873/05 - 3.2.06

D E C I S I O N
of the Technical Board of Appeal 3.2.06
of 11 October 2007

Appellant: (Opponent)
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Respondent: (Patent Proprietor)
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Decision under appeal:
Decision of the Opposition Division of the European Patent Office posted 19 May 2005 rejecting the opposition filed against European patent No. 0768930 pursuant to Article 102(2) EPC.

Composition of the Board:

Chairman: P. Alting Van Geusau
Members: M. Harrison
K. Garnett

Summary of Facts and Submissions

I. The appellant (opponent) filed an appeal against the opposition division's decision of 19 May 2005 rejecting the opposition against European patent No. 0 768 930, and requested that the patent be revoked.

Amongst the references listed by the appellant in its grounds of appeal, the following were referred to in its arguments relating to lack of inventive step:

D7: Patent Abstracts of Japan vol. 17, No. 324 (M-1533) and JP 05 038608 A.

D9: Drawing labelled "Bohrfutter P10 1/2-20 UNF-3B Spannbereich 1 bis 10 mm.", number 102-60-103-00

II. As its main request, the respondent (proprietor) requested dismissal of the appeal.

III. With its summons to oral proceedings, the Board noted that the alleged prior use based on D9 and supporting documentation did not include *inter alia* an itemised parts list.

IV. In its submission dated 21 August 2007, the appellant included:

Anlage 4: Parts list and drawing labelled "Gewindering", number 102-00-100-03

V. In its submission dated 10 September 2007, the proprietor contested the prior use, arguing that the

evidence submitted by the appellant was insufficient to establish "what" had allegedly been used.

VI. Oral proceedings were held before the Board on 11 October 2007.

VII. Claim 1 of the main request reads as follows:

"A chuck (10,110) for use with a manual or powered driver having a rotatable drive shaft, said chuck comprising: a generally cylindrical body member (16, 116), said body member (16, 116) having a forward section (20, 120, 130) and a rearward section (22), said rearward section (22) having an axial bore (26) formed therein to mate with said drive shaft of said driver and said forward section (20) having an axial bore (24) formed therein and a plurality of angularly disposed passageways (30) formed therethrough and intersecting said axial bore (24); a plurality of jaws (18, 118) slidably positioned in each of said angularly disposed passageways (30), each of said jaws (18, 118) having a jaw face (32) formed on one side thereof and threads (34) formed on the opposite side thereof; a unitary nut (48, 148) rotatably mounted relative to said body (16, 116) so as to engage the threads (50) of said nut with said jaw threads (34); and a generally cylindrical sleeve member (12, 112) received over the forward section of said body member (16, 116) for engaging said nut (48, 148) so that when said sleeve member (12, 112) is rotated, said nut (48, 148) will be rotated therewith to operate said jaws (18, 118), a retaining member (46) is located on said body member (16), said retaining member (46) being located so as to be in direct abutting contact with a portion of said

unitary nut (48), to prevent axial movement of said nut (48) in the forward direction, characterized by said retaining member (46) being received in a groove (44) in the forward section of said body (16), and said nut (48) including a first portion (56) of a first outside diameter and a second portion (58) extending axially outwardly from said first portion (56) and said threads (50), said second portion (58) having an outside diameter less than said first outside diameter."

VIII. The appellant's arguments may be summarised essentially as follows:

D9 and supporting documentation concerned a chuck which was made public by its sale in 1990. The subject matter of claim 1 differed from D9 only by: "said retaining member being located so as to be in direct abutting contact with a portion of said unitary nut".

In D9, the retaining member was in abutting contact with the nut indirectly via the outer sleeve. However, a chuck nut always had to be retained axially on the chuck body member. In the case of a unitary nut as defined in claim 1, there were only two possible ways for achieving axial retention of the nut; direct or indirect abutment with the nut. Given the problem to be solved, which could be regarded as providing axial retention independent of the sleeve, the selection of the "direct" abutment option from the only two possibilities available did not involve inventive skill. Axial retention of a unitary nut by direct abutment with the retention means was well known in the art, e.g. from D7. To arrive at the subject matter of claim 1 starting from D9, the outer sleeve which was press-

fitted to the nut only had to be shifted slightly forwards and the nut extended likewise axially forwards. These were elementary modifications for a skilled person, not involving inventive skill. If difficulties with a press-fitted sleeve arrangement existed, a non-press-fitted arrangement could be used and a second retainer ring assembly used for holding the sleeve axially elsewhere.

IX. The respondent argued essentially as follows:
The alleged public prior use of D9 was not adequately proven since the means of attachment of the nut to the front sleeve were unknown; it could not be concluded that a press-fit arrangement was present and thus, in addition to the feature regarded by the appellant as differing from claim 1, further features might also differ. It was false to start from D9. If nevertheless the Board considered D9 as prior art, D9 anyway taught merely using the forward surface of the sleeve to provide axial retention for the nut by the sleeve being tightly held between the nut and the retainer ring. Moving the sleeve elsewhere not only left a gap at the forward end of the chuck but the sleeve would have to be formed differently. No incentive existed to do this. The retainer ring groove could also not be repositioned further back along the chuck body to fulfil the definition in claim 1, because insufficient material was available on the chuck body to allow a groove to be machined further back. The nut and sleeve would each have to be altered in some way to solve the problem of providing an alternative retaining of the nut while allowing the forward thrust from the nut to be taken. D7 taught a different solution entirely, namely using an intermediate sleeve fixedly located on the nose

portion of the chuck body, so that even if D7 were combined with D9, this would not allow the skilled person to arrive at the subject matter of claim 1.

Reasons for the Decision

1. The alleged prior use according to D9 is in dispute between the parties and this is not a matter which was decided by the opposition division.

For the purposes of this decision, it will be assumed that the public prior use indeed occurred as alleged by the appellant. In accordance therewith, the sleeve member will be assumed to have been attached to the nut to cause its rotation by being press-fitted to the external surface of the nut.

2. With the above assumptions being made, the Board finds that the only feature of claim 1 which differs from the chuck disclosed in D9 is:

> "said retaining member being located so as to be in direct abutting contact with a portion of said unitary nut"

The problem to be solved by this feature is not stated in the patent. However, it is readily apparent that means are required to take the low forward thrust of the nut during unlocking, which function would be lost when the thrust bearing sleeve member is removed. Since the objective problem should not itself contain a lead towards the solution, the objective problem to be solved starting from D9 is thus regarded as being an

alternative means of retaining the nut while still allowing forward thrust to be resisted.

In order to modify the chuck of D9 so as to arrive at the subject matter of claim 1, the outer sleeve member 02 thereof would first have to be moved out of contact with the retaining ring 10 in some way. The sleeve member is however not adapted for such movement, since forward movement would leave a gap at the rear side and it is questionable whether sufficient space exists for the forward face of the sleeve member to occupy the intended position due to the presence of a recess in the nose portion which might be partially obscured. Thus, alteration of the sleeve member would seemingly be a necessity. Further, the nut 03 could itself not be left unaltered; it would need to be extended forwards so as to be able to assume a position in abutting contact with the retaining ring 10. In performing these operations, the simple functional structure of D9 would however be lost. In the disclosed structure, the nut and sleeve member act together as a press-fitted unit which, for assembly purposes, can simply be screwed onto the threads of the jaws, followed by application of the retaining ring 10 to retain the assembly in place. If the ring were no longer accessible as a result of the sleeve member being extended forwards, other means would have to be devised to assemble the chuck. The possibility of simple disassembly by removing the retainer ring and then the nut and sleeve together, would also be lost.

Turning to D7, this discloses a retaining member corresponding *per se* to the feature missing from D9. However, this retaining member is not a retaining

member in a groove as defined in claim 1, but is in the form of an intermediate tubular sleeve 8 fixedly attached onto the external surface of the nose of the chuck body. In order for the nut to abut the intermediate tubular sleeve 8, the sleeve member 6 is itself formed with an opening at its front end which bears on, and moves around, the external surface of the tubular sleeve 8. The structure in D7 is therefore entirely different from the structure in D9, one employing an intermediate sleeve and the other employing a groove and ring retainer.

Given the different types of structures present in D9 and D7 respectively, combined with the fundamental disadvantages which would be encountered by altering the nut and sleeve in D9, the Board finds that a skilled person acting without hindsight would not start from D9 and combine the teaching from D7 therewith in a way which would lead to the subject matter of claim 1. If anything, due to their different structures, the combination of D7 and D9 would only lead to the nut retaining structure of D7 replacing the ring and groove structure of D9 in its entirety.

Based on the evidence before it, the Board consequently concludes that the subject matter of claim 1 involves an inventive step and that the requirements of Article 56 EPC are met.

The matter of whether the alleged public prior use according to D9 has been adequately proven requires no further consideration by the Board, since the aforegoing conclusion would remain unaltered even if

sufficient proof were available to support the appellant's allegation.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

M. Patin P. Alting van Geusau