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Datasheet for the decision of 21 September 2010

Case Number: T 0754/08 - 3.2.08

Application Number: 01106856.6

Publication Number: 1108900

IPC: F16B 31/04

Language of the proceedings: EN

Title of invention:
Fluid operated tool for elongating and relaxing a threaded connector

Patent Proprietor:
Junkers, John K.

Opponent:
ITH GmbH

Headword:
-

Relevant legal provisions:
EPC Art. 56

Relevant legal provisions (EPC 1973):
-

Keyword:
"Oral submissions by a former patent attorney (allowed)"
"Inventive step (yes)"

Decisions cited:
-

Catchword:
Oral submissions on technical matters by a former patent attorney (see point 2).

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Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 0754/08 - 3.2.08

D E C I S I O N
of the Technical Board of Appeal 3.2.08
of 21 September 2010

Appellant: (Opponent)
ITH GmbH
Auf'm Brinke 18
D-59872 Meschede (DE)

Representative:
Christophersen, Ulrich Rudolf
Christophersen & Partner
Patentanwälte
Feldstrasse 73
D-40479 Düsseldorf (DE)

Respondent: (Patent Proprietor)
Junkers, John K.
8 Stonewall Road
Saddle River
New Jersey 07458 (US)

Representative:
Hanson, William Bennett
Bromhead Johnson
19 Buckingham Street
London WC2 6EF (GB)

Decision under appeal:
Interlocutory decision of the Opposition Division of the European Patent Office posted on 11 February 2008 concerning maintenance of European patent No. 1108900 in amended form.

Composition of the Board:

Chairman: T. Kriner
Members: M. Alvazzi Delfrate
E. Dufrasne

Summary of Facts and Submissions

I. With the interlocutory decision posted on 11 February 2008 the opposition division found that European patent No. 1 108 900, as amended according to the main request then on file, met the requirements of the EPC.

II. The appellant (opponent) lodged an appeal against this decision on 9 April 2008, paying the appeal fee on the same day. The statement setting out the grounds for appeal was filed on 20 June 2008.

III. Oral proceedings before the board of appeal were held on 21 September 2010.

The appellant requested that the decision under appeal be set aside and that the patent be revoked.

The respondent (patent proprietor) requested that the appeal be dismissed or, in the alternative, that the decision under appeal be set aside and that the patent be maintained in amended form on the basis of one of the first and second auxiliary requests, both filed on 20 December 2007.

Moreover, the respondent requested that Mr R., a former patent attorney who, as announced with letter of 9 September 2010, accompanied the professional representative of the appellant, not be allowed to make oral submissions.

IV. The following documents are relevant for the present decision:

D9: WO -A- 93/22568;
D12: US -A- 4 289 049;
D13: US -A- 3 584 527;
D14: US -A- 3 323 395;
D15: US -A- 3 323 394;
D16: US -A- 3 247 741;
D19: US -A- 5 140 874; and
D26: Extract from the brochure "HYTORC It's about time"; copyright 1990, Unex Corp.

V. Independent claim 1 underlying the appealed decision reads as follows.

"A tool for elongating and relaxing a threaded connector, comprising a non-rotatable tool element (15), provided with first engaging means (16) for non-rotatably engaging a threaded connector (1); a rotatable tool element (9) coaxial with the non-rotatable tool element (15), rotatable about an axis of the threaded connector (1) and having second engaging means (17) for engaging said non-rotatable tool element (15); and an intermediate element (19) arranged and formed so that it engages with, but is non-rotatable relative to, said non-rotatable tool element (15); the rotatable tool element (9) being freely turnable relative to the intermediate element (19) whereby, when said rotatable tool element (9) is turned about said axis, the non-rotatable tool element (15) only moves in an axial direction, but does not turn, and therefore is able to displace in an axial direction a threaded connector (1)

when it is engaged with the latter; characterised in that the tool is a fluid operated ratcheting torque tool and further comprises a housing (2); a fluid drive (4-7); a rotatable annular projection (10) which is rotatable by said fluid drive (4-7) and which is connected with said rotatable tool element (9) to rotate the latter; and a non-rotatable projection (14) radially surrounded by said annular projection (10), whereby the non-rotatable projection (14) is not rotatable relative to said housing (2), and is connected with said non-rotatable tool element so as to prevent rotation of said non-rotatable tool element (15); and in that said rotatable and non-rotatable projections (10 and 14) and said rotatable and non-rotatable tool elements (9,15) are coaxial with each other."

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

Oral submissions by a former patent attorney

With letter of 9 September 2010 it had been announced that Mr R., a technical consultant of the appellant, would make technical statements during the oral proceedings. Mr R. had a qualification in the technical field concerned, and the fact that he was a former patent attorney could not disqualify him as a technical expert. Therefore, he should be allowed to make oral submissions on technical issues.

Inventive step

D9 disclosed a tensioning device which exhibited all the features according to the preamble of claim 1 and which was operated by a tool. Even if the structure of the tool was not described it was clear that, in order to operate the device shown in D9, it had to comprise an inner projection to engage the non-rotatable inner part 4 and an outer projection to engage the rotatable outer part 3.

The object to be achieved by the claimed invention could be seen as providing a suitable tool to operate the tensioning device according to D9.

D26 disclosed a tool (ULC-type with auto-back-up wrenches) for tensioning bolts, wherein an inner part (the bolt) was held stationary, together with the housing of tool, while an outer part (the nut) was rotated. This movement was the same as that necessary to operate the device of D9, i.e. the rotation of an element surrounding a stationary element. Therefore, this tool would have been taken into consideration by the person skilled in the art confronted with the above object to be achieved.

It was true that some modifications, consisting in providing the stationary and the rotatable element in the form of projections, were necessary to adapt said tool shown in D26 to the device of D9. However, these were merely minor modifications. Moreover, the person skilled in the art would have known from his common general knowledge how to carry them out without impairing the functioning of the tool shown in D26.

This was also confirmed by the patent itself, which did not give any detail about how the projections 10 and 14 were operated.

Additionally, D26 itself, on the page entitled "Accessories Tool", disclosed some accessories which could be used to adapt the ULC-type tool with auto-back-up wrench to the device of D9. It therefore provided a hint to modify this tool according to present claim 1.

Accordingly, it was obvious to select the ULC-type tool shown in D26 as a drive unit for the tensioning device according to D9 and to provide it with a stationary and a rotatable element in form of projections to engage the inner and the outer parts of this device, in order to achieve the object underlying the patent in suit.

In addition, the subject-matter of claim 1 did not involve an inventive step in view of the combination of D9 with D19 either. D19 disclosed a fluid-operated ratcheting torque tool for tightening and loosening a threaded connector. This tool had a rotatable and a stationary projection to engage the elements of the connector. Even if, contrary to the device of D9, the stationary element surrounded the rotatable one, it was a matter of routine to exchange them, for instance by adopting the mechanisms disclosed in documents D12 to D16. Therefore, it was also obvious to select the tool of D19 as a drive unit for the tensioning device according to D9 and to modify it in such a way that the rotatable projection surrounded the non-rotatable one, in order to achieve the object underlying the patent in suit.

Accordingly, the claimed device did not involve an inventive step.

VII. The respondent's arguments may be summarised essentially as follows.

Oral submissions by a former patent attorney

It was not disputed that Mr R. had the knowledge of a technical expert in the field of the patent in suit. However, since he was the former patent attorney of the appellant in this case, his submissions would be those of a professional representative. Since he was not authorised to act in the latter function, he should not be allowed to speak during the oral proceedings.

Inventive step

D9, which disclosed a tensioning device having the features according to the preamble of claim 1, represented the closest prior art. Starting from this document, the object to be achieved by the claimed invention could be seen as providing the device with a suitable tool to operate it without an abutment element. This object was achieved by providing the features according to the characterising portion of claim 1. The prior art did not render the claimed solution obvious.

The ULC-type tool with auto-back-up wrenches disclosed in D26 needed to be modified in order to be capable of operating the device of D9. Since the necessary modifications were extensive, it was not a matter of

routine for the person skilled in the art to carry them out. Moreover, since the torques to be applied by the tool of D26 were high, he would think that projections such as those necessary to interact with the splines in the outer and inner parts of D9 would not be able to provide the reaction force necessary to apply said torques. Therefore, it was not obvious to choose and modify the tool of D26 for achieving the object above.

D19 too could not lead in the direction of the claimed invention. This document disclosed a hydraulic wrench wherein, contrary to the claimed device, the outer projection was stationary. Since this arrangement was necessary to provide the reaction force, it was not obvious to make the outer projection rotatable.

Accordingly, the claimed subject-matter involved an inventive step.

Reasons for the Decision

1. The appeal is admissible.

2. Oral submissions by a former patent attorney

The Enlarged Board of Appeal dealt with the issue of oral submissions by a person accompanying the professional representative of a party in its decision G 4/95 (OJ EPO 1996, 412). According to this decision (see points (1) and (2) of the order), said accompanying person may make oral submissions on specific legal or technical issues on behalf of that party, in addition to the complete presentation of the

party's case by the professional representative with the permission of and at the discretion of the EPO (see point (3)(a) of the order).

When exercising its discretion the EPO should consider in particular the following criteria (see point (3)(b) of the order):

(i) The professional representative should request permission for such oral submissions to be made. The request should state the name and qualifications of the accompanying person, and should specify the subject-matter of the proposed oral submissions.

(ii) The EPO should be satisfied that oral submissions by an accompanying person are made under the continuing responsibility and control of the professional representative.

Furthermore, the Enlarged Board decided that the same criteria applied to qualified patent lawyers of countries which were not contracting states to the EPC, without any further special criteria (point 3(c) of the order and point 13 of the reasons).

2.1 In the present case the appellant had announced in due time, namely with the letter of 9 September 2010, that Mr R., a consultant of the appellant for technical questions, was going to participate in the oral proceedings to make oral submissions on technical issues. It has not been disputed that his education and his present activity as technical expert in the field qualify Mr R. as a technical expert. Furthermore, the professional representative stated that the submissions

of Mr R. would be made under his continuing supervision and would concern exclusively specific technical issues, in other words they would not replace but merely complement the case as presented by him.

2.2 Mr R. is not disbarred simply because he is a former European patent attorney. The conditions set out by the decision G 4/95 are applicable to any accompanying person. Therefore, there is no reason to exclude a former European patent attorney as such. The respondent's fear that his oral submissions could be those of a patent attorney rather than those of an expert is unfounded, since the professional representative of the appellant has explicitly stated that Mr R. would only speak about specific technical issues, while he himself would present the case.

2.3 Under these conditions, the board sees no reason not to allow Mr R. to make oral submissions during the oral proceedings.

3. Inventive step

3.1 D9, which is unanimously considered to represent the closest prior art, discloses a device for tensioning and relaxing a bolt, or in other words a tool for elongating and relaxing a threaded connector.

This device comprises a non-rotatable tool element (inner part 4), provided with first engaging means (inner thread 17) for non-rotatably engaging a threaded connector (stud 1); a rotatable tool element (outer part 3) coaxial with the non-rotatable tool element, rotatable about an axis of the threaded connector and

having second engaging means (inner thread 11) for engaging said non-rotatable tool element; and an intermediate element (friction element 5) arranged and formed so that it engages with, but is non-rotatable relative to, said non-rotatable tool element (see page 5, lines 10-13); the rotatable tool element being freely turnable relative to the intermediate element whereby, when said rotatable tool element is turned about said axis, the non-rotatable tool element only moves in an axial direction, but does not turn, and therefore is able to displace in an axial direction a threaded connector when it is engaged with the latter (see page 6, lines 12-19).

According to D9 (page 6, lines 2-6) a tool is applied so that it engages the splines 8 of the outer part 3 to move it and also engages the splines 13 of the inner part 4 to hold it. No further detail is disclosed about this tool.

3.2 Starting from the device disclosed in D9, the object underlying the claimed invention has to be regarded as to provide a suitable tool for operating this device without the need to provide an element adapted to abut against a neighbouring stationary object (see paragraph [0002]).

To achieve this object, claim 1 proposes a fluid-operated ratcheting tool exhibiting the features according to the characterising portion of the claim. The rotatable outer projection is connected with the rotatable tool element to rotate it. The inner non-rotatable projection is connected with the non-rotatable tool element and provides the necessary

reaction force without the need for an element adapted to abut against a neighbouring stationary object.

3.3 D26 shows a hydraulic ratcheting tool (ULC-type with auto-back-up wrench) which, in operation, has an element (an arm with a rectangular opening) which holds a bolt stationary while another element (a rotatable element with a hexagonal opening) applies a rotation to the nut surrounding the bolt. Therefore, the movement realised is, from a kinematic point of view, the same as that required by D9, i.e. the rotation of a tool element surrounding a non-rotatable element.

3.4 However, as acknowledged by the appellant itself, the tool of D26 cannot be used as such to operate the device of D9, but needs to be modified for this purpose.

Contrary to the submission of the appellant, said modifications cannot be considered minor. Not only had both the rotatable and the stationary elements of the tool to be modified to project from the housing of the tool; also the way in which the tool engages with the elements to be held stationary and to be rotated had to be changed, since the inner part 4 and the outer part 3 of the device of D9 are engaged with on their inner surface, while the bolt and the nut shown in D26 are engaged with on their outer surfaces.

Moreover, these modifications, changing the way of engaging the different rotatable and stationary elements, imply a different way of applying the torque. Since the tool shown in D26 is designed for applying high torques, the person skilled in the art would be

dissuaded from changing the application of the torque in a way which might impair the tool's functioning.

Therefore, it was not obvious for the person skilled in the art to try to achieve the given object by selecting the ULC-type tool with auto-back-up wrench shown in D26 and modifying it according to claim 1.

3.5 This finding cannot be challenged by the appellant's argument according to which the alleged lack of detail of the patent in suit proved that the common general knowledge of the person skilled in the art enabled him to modify the tool shown in D26 to operate the device of D9.

It is not disputed that the person skilled in the art was in a position to perform these modifications. However, the relevant question when examining inventive step is not whether the person skilled in the art could have carried out the claimed invention, but whether he would have done so in the hope of achieving the object underlying it. For the reasons explained above, in the present case this question is to be answered in the negative.

3.6 Also the disclosure of some accessories on the page of D26 with the title "Accessories tool" cannot change the board's assessment. D26 does not relate to a single tool and there is no direct link between said accessories and the specific ULC-type tool with auto-back-up wrench. Therefore, this document does not disclose or suggest modifying this specific tool in a way which would render it suitable to operate the device of D9.

3.7 The combination of D9 and D19 does not render the claimed subject-matter obvious either. The latter document discloses a hydraulic wrench wherein a reaction socket 27 surrounds a turning socket 28. Therefore, contrary to the claimed invention and to the device of D9, the non-rotatable part surrounds the rotatable part. The appellant's submission that it was obvious to modify the wrench of D19 to have the rotatable part surrounding the non-rotatable one is not convincing. In the wrench of D19 the positioning of the reaction socket 27 outside the turning socket is essential for the exercise of the necessary reaction force, namely by abutting against a neighbouring object (see column 4, lines 1-12). Accordingly, it would be against the teaching of D19 to position the reaction socket within the turning socket.

Nor would taking D12 to D16 into consideration have rendered this modification obvious, since these documents relate to a different type of tools, which do not need abutment against a neighbouring object.

3.8 In view of the above, the subject-matter of claim 1 of the main request involves an inventive step.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

V. Commare T. Kriner