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**Datasheet for the decision
of 7 October 2008**

Case Number: T 0184/07 - 3.2.01

Application Number: 98306874.3

Publication Number: 0916570

IPC: B62K 23/06

Language of the proceedings: EN

Title of invention:
Cable adjustment device

Patentee:
SHIMANO INC.

Opponent:
SRAM Deutschland GmbH

Headword:
-

Relevant legal provisions:
RPBA Art. 13(3)

Relevant legal provisions (EPC 1973):
EPC Art. 56, 100(b)

Keyword:
"Disclosure - sufficiency - skilled person"
"Inventive step - no (main request), yes (auxiliary request)"

Decisions cited:
T 0547/90, T 0472/92, T 0157/97, T 0241/99

Catchword:
-



Case Number: T 0184/07 - 3.2.01

D E C I S I O N
of the Technical Board of Appeal 3.2.01
of 7 October 2008

Appellant: SRAM Deutschland GmbH
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Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 8 December 2006
and corrected 8 February 2007 in accordance
with Rule 89 EPC 1973 rejecting the opposition
filed against European patent No. 0916570
pursuant to Article 102(2) EPC 1973.

Composition of the Board:

Chairman: S. Crane
Members: J. Osborne
G. Weiss

Summary of Facts and Submissions

- I. The appeal is directed against the decision posted 8 December 2006 and corrected 8 February 2007 in accordance with Rule 89 EPC 1973 to reject the opposition against European patent No. 0 916 570 claiming priority from 13 November 1997.
- II. The following evidence played a role during the appeal procedure:
- W1a: "Motorcross Action" magazine, November 1997, page 50;
- W2: US-A-4 833 937;
- O1: Letter dated 23 March 2005 from Suzuki International Europe GmbH relating to the public availability of a cable adjusting device shown in annexed photographs.
- III. The appellant (opponent) requested that the contested decision be set aside and the patent revoked. The respondent (patent proprietor) requested with a letter dated 17 August 2007 that the appeal be dismissed or in the alternative that the patent be maintained in amended form on the basis of four auxiliary requests.
- IV. The board summoned the parties to oral proceedings to be held on 22 April 2008 and stated that any further requests or written submissions should be filed at least one month before the date set for the oral proceedings. In response to requests from both parties

- the oral proceedings were subsequently postponed three times.
- V. With a letter dated and received 20 March 2008 the respondent filed its "final submissions in connection with this appeal" and filed three additional auxiliary requests. With a letter of 8 September 2008 the appellant filed objections in response to the respondent's auxiliary requests. With a letter dated and transmitted by fax on 30 September 2008 the respondent amended its third and fourth auxiliary requests and added an eighth auxiliary request.
- VI. At oral proceedings held on 7 October 2008 the appellant maintained its request to set aside the contested decision and revoke the patent. The respondent requested that the appeal be dismissed (main request) or in the alternative that the patent be maintained in amended form on the basis of claims 1 to 15 submitted at the oral proceedings (auxiliary request).
- VII. Claim 1 as granted reads:
- "A cable adjustment device comprising:
a base member (30) having a cable guide portion (50, 98);
an adjusting member (40) having a tubular portion, said adjusting member (40) being rotatably coupled to said cable guide portion (50, 98) for axial movement during relative rotational movement between said tubular portion of said adjusting member (40) and said cable guide portion (50, 98) of said base member (30); and
an indexing spring (42) disposed between said base

member (30) and said adjusting member (40) characterised in that said indexing spring (42) is disposed in a cantilevered arrangement, with a first part (91) of said spring (42) being engaged with one of said members (30, 40), and a second part (92) of said spring (42) having a free end movably coupled to said first part (91) to move in a first direction substantially transverse to said axial movement of said adjusting member (40), said second part (92) of said spring (42) being normally biased to engage a first longitudinally extending channel (80) formed in one of said members (30, 40) to restrict rotational movement between said members (30, 40) and wherein said first part (91) of said indexing spring (42) includes a longitudinal portion (93) extending longitudinally within a bore (52, 70) of one of said members (30, 40)."

Claim 1 according to the respondent's auxiliary request reads:

"A cable adjustment device comprising:
a base member (30) having a cable guide portion (50, 98);
an adjusting member (40) having a tubular portion, said adjusting member (40) being rotatably coupled to said cable guide portion (50, 98) for axial movement during relative rotational movement between said tubular portion of said adjusting member (40) and said cable guide portion (50, 98) of said base member (30); and
an indexing spring (42) disposed between said base member (30) and said adjusting member (40) characterised in that said indexing spring (42) is a torsion spring (42) disposed in a cantilevered

arrangement with a first part (91) of said spring (42) being engaged with said base member (30), and a second part (92) of said spring (42) having a free end movably coupled to said first part (91) to move in a first direction substantially transverse to said axial movement of said adjusting member (40), wherein said first part (91) of said indexing spring (42) includes a transverse portion (94) extending in a second direction, said second part (92) of said spring (42) being normally biased to engage a first longitudinally extending channel (80) formed in said adjusting member (40) to restrict rotational movement between said members (30, 40), and wherein said first part (91) of said indexing spring (42) includes a longitudinal portion (93) extending longitudinally within a bore (52) of said base member (40)."

Claims 2 to 15 according to the auxiliary request define features additional to those of claim 1.

VIII. The appellant's submissions in as far as they are relevant to the present decision may be summarised as follows:

The patent specification fails to sufficiently disclose how the subject-matter of claim 1 according to the main request can be performed over the full range of combinations which fall within the wording of the claim. Moreover, the subject-matter of claim 1 according to the main request does not involve an inventive step in the light of either W1a or O1 alone or in combination with the disclosure of the embodiment according to W2 figure 15. The subject-matter of the claim differs from W1a or O1 only by the feature that the longitudinal

portion extends within a bore. This feature is an arbitrary one to which no technical effect can be attributed and therefore cannot serve as the basis for an inventive step. Even if a technical effect could be identified, in the embodiment of W2 figure 15 an indexing spring is provided within the bore of the base member. The skilled person would recognize the protection which the bore provides and adopt a similar arrangement in W1a or O1.

The requests filed with the respondent's letter of 30 September 2008 should be disregarded as they were filed too close to the oral proceedings. The respondent had indicated that its letter of 20 March 2008 would be its "final written submission". Moreover, the eighth auxiliary request is not a response to any new objection raised by the appellant.

The closest state of the art for consideration of inventive step of the subject-matter of claim 1 according to the auxiliary request is according to O1. The indexing spring of O1 is a torsion spring since it is twisted by lateral forces when the adjusting wheel is rotated. The subject-matter of the claim therefore differs from the state of the art only by the feature of the longitudinal portion extending longitudinally within a bore. As for the main request, this is an arbitrary feature which cannot establish an inventive step.

IX. The respondent replied essentially as follows:

Claim 1 according to the main request includes some arrangements which are technically not feasible. The

skilled person would recognize these as such and exclude them from the scope of the subject-matter. There is no requirement for the patent specification to disclose how these could be performed. As regards inventive step, the appellant correctly assesses which feature is novel. The extension of the longitudinal portion in the bore has the effect of creating a torsion spring, thereby solving the problem of providing a spring with a low rate within compact overall dimensions. In W1a the spring is a beam spring but its method of mounting is unknown. The skilled person would not be motivated to mount the spring in a bore since that would be poorly suited to the functional requirement. The spring of W1a would not fit into the bore of the arrangement of W2 figure 15 and it is not apparent how it could be located.

As regards the timing of the requests filed on 30 September 2008, the respondent filed its submissions with the letter of 20 March 2008 before the deadline set in accordance with the first date set for the oral proceedings. However, the appellant waited until the deadline in accordance with the final date set for the oral proceedings and then raised new objections. The respondent's amended auxiliary requests are in reply to those objections. Claim 1 according to the additional auxiliary request merely contains features taken from the claims as granted which the appellant has already considered.

The appellant has failed to establish "up to the hilt" that the device according to O1 was made available to the public before the priority date. The letter from Suzuki refers to a different motorcycle than was

mentioned in the appellant's enquiry and there is no evidence that the "Allgemeine Betriebserlaubnis" referred to in the letter was publicly available.

Claim 1 according to the auxiliary request filed during the oral proceedings contains the feature of a torsion spring which is not known from the cited evidence. The transverse portion may serve as an abutment whilst the longitudinal portion permits a low spring rate and accurate tailoring of the spring force to the function. The accommodation of the longitudinal portion in the bore provides for a compact arrangement. In a torsion spring the restoring force derives from twisting of the spring material. By contrast, the indexing spring of O1 is a beam spring in which the restoring force derives from bending of the material.

Reasons for the Decision

State of the art

1. The appellant has filed two sets of evidence of state of the art, W1a and O1.
 - 1.1 W1a is an extract from a magazine containing an advertisement for an actuating lever for a motorcycle clutch. W1a is accompanied by evidence concerning the date on which the magazine was made available to the public and the board is satisfied that W1a was published before the priority date of the contested patent and therefore belongs to the state of the art within the meaning of Article 54(2) EPC 1973. The respondent does not challenge the status of W1a as

state of the art so the matter need not be considered in further detail.

- 1.2 O1 relates to an alleged public prior use of an actuating lever on a motorcycle.
- 1.2.1 The appellant possessed an actuating lever which it believed to have been fitted to a Suzuki GSX-R 600V motorcycle for at least the 1997 model year. It supplied photographs of the actuating lever to Suzuki GmbH and requested confirmation that motorcycles equipped with it were supplied to dealers before the priority date of the present patent. In reply Suzuki GmbH stated that the actuating lever was fitted as from the 1996 model year to the Suzuki GSX-R 750 motorcycle which had been certified in Germany ("Allgemeine Betriebserlaubnis") with effect from 27 September 1995.
- 1.2.2 The respondent argues that the appellant has not discharged its burden of proof, arguing that the availability of the actuating lever before the priority date has not been proved "up to the hilt". That level of proof has been required by the boards in cases where only one party has access to information about the alleged prior use, cf. T 472/92 (OJ EPO 1998, 161). The level of proof appropriate in the case of mass-produced consumer products, as here, however, is the balance of probabilities, cf. T 241/99 (not published in OJ EPO).
- 1.2.3 It is normal that vehicles designated as being of a particular model year are supplied to customers before the beginning of the calendar year. In the present case that would mean that motorcycles equipped with the actuating lever held by the appellant were made

available about one year before the priority date. This is consistent with the certification date. It would be contrary to general experience that no such motorcycle was delivered to a customer within such a period and the respondent has not suggested that to be the case. The fact that the appellant apparently was mistaken as regards which motor-cycle was equipped with the actuating lever in no way undermines the information supplied by Suzuki GmbH.

- 1.2.4 On the basis of the foregoing the board finds the public prior use 01 as proven.

Main request

2. Claim 1 specifies "a first part (91) of said spring (42) being engaged with **one** of said members (30, 40), and a second part (92) of said spring ... being normally biased to engage a first longitudinally extending channel (80) formed in **one** of said members (30, 40) to restrict rotational movement between said members (30, 40) and wherein said first part (91) of said indexing spring (42) includes a longitudinal portion (93) extending longitudinally within a bore (52, 70) of **one** of said members" (emphasis added). The three occurrences of the term "one" result in some combinations of features for which the appellant argues there to be inadequate disclosure in the patent specification. In the board's view the objection is unfounded because, as convincingly argued by the respondent, the skilled person would readily recognise some combinations of features to be unworkable. It is those combinations for which the appellant argues the disclosure to be inadequate. Since those combinations do not fall within

the claim when sensibly interpreted they cannot give rise to an objection of insufficiency of disclosure. The board does not now consider this matter in more detail because, as set out below, the request fails for the reason that the subject-matter of the claim involves no inventive step.

3. Consideration of inventive step will be based on the claim as it would be interpreted by the skilled person. He would read the above referenced wording as: "a first part (91) of said spring (42) being engaged with **one** of said members (30, 40), and a second part (92) of said spring ... being normally biased to engage a first longitudinally extending channel (80) formed in **the other** of said members (30, 40) to restrict rotational movement between said members (30, 40) and wherein said first part (91) of said indexing spring (42) includes a longitudinal portion (93) extending longitudinally within a bore (52, 70) of **said** one of said members".

4. In the actuating device according to W1a indexing is by means of a beam spring, a first part being engaged with the base member and the second part engaging a longitudinally extending channel formed in the adjusting member. The parties and the board are in agreement that the subject-matter of claim 1 differs from the actuating device according to W1a only by the feature of the longitudinal portion of the spring extending longitudinally within a bore of the other member, which in W1a would be the base member.
 - 4.1 The respondent takes the view that the differentiating feature implies that the indexing spring is a torsion spring. It further argues with reference to the

description that this solves the problem of providing a more compact arrangement together with the possibility of easily tailoring the characteristics of the spring to the desired duty. However, the mere extension of a longitudinal portion within a bore does not imply a torsion spring. It would be quite feasible in the device according to W1a to modify the base member in order to provide a bore in which a portion of the leaf spring extends, without any interaction between the spring and the bore. Such an arrangement would correspond to the subject-matter of present claim 1 but far from making the device more compact the modification would increase its size. Moreover, the characteristics and function of the spring would remain unaffected. The subject-matter of present claim 1 therefore does not solve the problem defined by the respondent. Moreover, the board is unable to identify any other problem which is solved and which would be derivable by the skilled person equipped with the teachings of W1a and the original application in the present case, cf. T 547/90, Reasons point 3, 4th paragraph (not published in OJ EPO).

- 4.2 In the absence of an identifiable technical problem which was originally disclosed the differentiating feature is no more than an arbitrary modification of the device according to W1a. Such a modification may be "non-obvious" for the skilled person in the sense that he would have no motivation to provide the combination but it is devoid of technical relevance and so cannot establish an inventive step, cf. T 157/97, Reasons 4.2.4 (not published in OJ EPO). The same conclusion would result from consideration of claim 1 in the light of O1 as closest state of the art.

Auxiliary request

5. During the oral proceedings the appellant requested that *inter alia* the former eighth auxiliary request filed by the respondent be disregarded in view of it being filed too close to the oral proceedings for it to be reasonably dealt with. Although that auxiliary request was subsequently withdrawn, the present one derives from it and its admittance therefore is a pre-condition for the admittance of this request.

5.1 In accordance with Article 13(3) RPBA amendments sought to be made to a party's case after oral proceedings have been arranged "shall not be admitted if they raise issues which the Board or the other party ... cannot reasonably be expected to deal with without adjournment of the oral proceedings".

5.2 In the present case the claims of the respondent's former eighth auxiliary request essentially differed from those as granted by the introduction into claim 1 of features of claims 5 to 7 as granted and the introduction of a new claim 2 directed towards an alternative embodiment mentioned in the description as granted. The alternative embodiment had been discussed in some detail during both the opposition and appeal procedures and the appellant at the time of filing the opposition had explicitly addressed inventive step of the subject-matter of claims 5 to 7 as granted. Under these conditions the board considers that the appellant could reasonably be expected to deal with the former eighth auxiliary request without postponing the oral proceedings. The board also could see no obstacle to

itself dealing with the request. The board therefore found that the former eighth auxiliary request should be admitted. Since the present auxiliary request is a corrected and simplified version of the former eighth auxiliary request the finding applies correspondingly.

6. The closest state of the art for consideration of inventive step of claim 1 is the publicly prior-used device 01. The indexing spring of that device is a beam spring which is formed into a U-shape. The spring is mounted by means of a screw which clamps a part of the first portion against a surface on the base member. Rotation of the spring about the axis of the screw is prevented by a transverse portion in the form of a folded tab which engages a side surface of the base member.
- 6.1 The subject-matter of present claim 1 therefore differs from the prior art device by the following features:
 - the indexing spring is a torsion spring; and
 - the first part of the indexing spring includes a longitudinal portion extending longitudinally within a bore of the base member.
- 6.2 The board is satisfied that the problem defined by the respondent, namely providing a compact device in which the spring characteristics may easily be tailored to the required duty, is solved by the differentiating features. None of the cited state of the art contains any teaching which would render it obvious for the skilled person to modify the device of 01 by introducing a torsion spring and incorporating it as

presently claimed. Modifying the device of O1 in such a way also extends beyond the normal activity of the skilled person. Whilst W2 in the embodiment of figure 15 discloses a similar device having an indexing spring incorporated in a bore in the base member, the spring is quite different, being neither a torsion spring nor cantilevered and having no transverse portion external to the bore.

6.3 The appellant takes the view that the indexing spring of O1 is a torsion spring so that the transverse portion is the only differentiating feature, and that since claim 1 does not specify that the transverse portion engages the base member, no recognisable technical effect is achieved and no inventive step can be recognised. The appellant argues that the indexing spring is a torsion spring because it is subject to torsion resulting from transverse forces being applied at one leg of the U-form being reacted at the other leg. However, the spring of O1 is clearly recognisable by the skilled person as a beam spring in which the primary restoring force results from bending; the torsion results only from lateral forces applied to the spring during movement of the adjusting member. Moreover, the feature of the torsion spring necessarily requires rotational restraint at one end and it is implicit that this is provided by the transverse portion.

6.4 On the basis of the foregoing the board concludes that the subject-matter of claim 1 according to this request does involve an inventive step. Since claims 2 to 15 contain all features of claim 1 the same conclusion applies to them.

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 with the following documents:
 - claims 1 to 15 submitted at the oral proceedings;
 - description pages 2 and 4 submitted at the oral proceedings together with pages 3 and 5 of the patent specification;
 - drawings as granted.

The Registrar:

The Chairman:

A. Vottner

S. Crane