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Datasheet for the decision of 11 April 2013

Case Number: T 2066/10 - 3.2.01

Application Number: 02730888.1

Publication Number: 1407923

IPC: B60N 2/30, E05C 3/32

Language of the proceedings: EN

Title of invention:
Inertia lock device and foldable sheet

Applicants:
TS Tech Co., Ltd.
HONDA GIKEN KOGYO KABUSHIKI KAISHA

Headword:
-

Relevant legal provisions:
EPC Art. 123(2)

Keyword:
"Allowability of amendments (no)"

Decisions cited:
-

Catchword:
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Case Number: T 2066/10 - 3.2.01

D E C I S I O N
of the Technical Board of Appeal 3.2.01
of 11 April 2013

Appellant I: (Applicant 1)
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Decision under appeal: **Decision of the Examining Division of the European Patent Office posted 27 April 2010 refusing European patent application No. 02730888.1 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman: G. Pricolo
Members: W. Marx
D. T. Keeling

Summary of Facts and Submissions

I. On 25 June 2010 the appellants (applicants) lodged an appeal against the decision of the examining division posted on 27 April 2010 concerning the refusal of European patent application No. 02 730 888.1 on the ground that the application did not meet the requirements of Article 83 EPC. The prescribed appeal fee was paid on the same day.

With the statement setting out the grounds of appeal, received on 7 September 2010, the appellants filed a first and a second set of amended claims according to a main and an auxiliary request, respectively.

II. In a communication posted on 8 October 2012, the board expressed the provisional opinion that claim 1 of both the main and the auxiliary request did not meet the requirements of Article 123(2) EPC.

III. With letter dated 12 December 2012 in response to the communication of the board, the appellants submitted that they intended to respond to the preliminary opinion in good time before oral proceedings were held.

IV. After summons to oral proceedings were issued with letter dated 21 December 2012, the appellants announced with letter dated 11 March 2013 that they had instructed an independent technical expert to put the invention into practice on the basis of the disclosure of the specification alone and would file the results in advance of the oral proceedings, to support the allegation that the disclosure of the invention was sufficient to allow the skilled person to put it into

practice. The technical report was then filed with letter dated 5 April 2013.

V. In the oral proceedings, held on 11 April 2013, the appellants requested that the decision under appeal be set aside and that a patent be granted on the basis of the claims according to the main request or, in the alternative, the auxiliary request, both filed with the statement of grounds of appeal.

VI. Claim 1 according to the main request reads as follows:

"An inertia locking system (7) comprising:

a pedestal (70) in which a substantially U-shaped receiving port (701a) receiving a locked member (1) is open toward an obliquely upper side;

a latch (71) having an upper curved portion (71b) for pushing in and holding the locked member (1) inserted to the receiving port (701a) of the pedestal (70), the latch (71) being stood up from the pedestal (70) and being pivoted to the pedestal (70) by a pivot pin (72) inserted to a portion close to a latch base portion (71a);

a torsion coil spring (73) arranged between the latch (71) and the pedestal (70) so as to be fitted onto an axis of the pivot pin (72), the latch (71) being supported so as to be biased in a moving part direction at the back of the receiving port (701a) of the pedestal (70) by the torsion coil spring (73); and

wherein the latch (71) comprises a jaw portion (71c) projecting from said latch base portion (71a) so as to protrude from a bottom line of the receiving port within the receiving port (7O1a), and a hook portion

(71d) protruding from the upper curved portion (71b) to an inner side thereof; and

when the locked member (1) is inserted into the receiving port (701a) of the pedestal (70) the locked member (1) kicks the jaw portion (71c) so as to move the hook portion (71d) to an engagement position over a receiving groove (91) of the locked member (1)."

Claim 1 according to the auxiliary request reads as follows:

"An inertia locking system (7) comprising:

a pedestal (70) in which a substantially U-shaped receiving port (701a) receiving a locked member (1) is open toward an obliquely upper side;

a latch (71) having an upper curved portion (71b) for pushing in and holding the locked member (1) inserted to the receiving port (701a) of the pedestal (70), the latch (71) being stood up from the pedestal (70) and being pivoted to the pedestal (70) by a pivot pin (72) inserted to a portion close to a latch base portion (71a);

a torsion coil spring (73) arranged between the latch (71) and the pedestal (70) so as to be fitted onto an axis of the pivot pin (72), the latch (71) being supported so as to be biased in a moving part direction at the back of the receiving port (701a) of the pedestal (70) by the torsion coil spring (73);

a substantially -shaped (sic) clip (80) provided in the pedestal (70) for receiving and holding the locked member (1); and

wherein the latch (71) comprises a jaw portion (71c) projecting from said latch base portion (71a) so as to protrude from a bottom line of the receiving port

within the receiving port (70la), and a hook portion (71d) protruding from the upper curved portion (71b) to an inner side thereof; and

when the locked member (1) is inserted into the receiving port (701a) of the pedestal (70) the locked member (1) kicks the jaw portion (71c) so as to move the hook portion (71d) to an engagement position over a receiving groove (91) of the locked member (1)."

VII. The appellants' arguments may be summarised as follows:

The free space of the latch 71 between the jaw portion 71c and the hook portion 71d had to be larger than the diameter of the member 1, which was erroneously illustrated in Figures 4 and 7 of the specification as filed. The correct and proper operation ("real-life operation") of the locking system of the present application required that, as member 1 was brought into the innermost recess of the receiving port 701a, it contacted the protruding jaw portion 71c of the latch causing it to rotate against the action of the torsion spring 73 to a position where the hook portion 71d (causing wear of the edge of the receiving groove when brushing past the edge of the groove) was in an engagement position over the receiving groove 91 of the member. Therefore, in a normal situation there was no physical contact between the receiving groove 91 and the hook portion 71d of the latch, so the member 1 was not locked and held in position by the latch. The locking system entered the locked position only when a crash situation occurred due to the inertia acting on the latch against the biasing force of the torsion spring, causing the member 1 to move outward from the innermost recess of the receiving port 91 until the

hook portion 71d physically engaged the receiving groove 91 of the member 1. In the locked position, which was maintained as long as the inertia caused by the crash situation continued, there was a small gap between the innermost recess of the receiving port 701a and the member 1, and the jaw portion 71c of the latch was no longer in contact with the member 1 (just discernible in Figure 7 as filed, clearly shown in exemplary Figure 7 filed on 7 December 2009). The locking of the member 1 in a crash situation was almost instantaneous due to the small movement of the member 1, which was a significant improvement over the prior art.

Admitting that claim 1 as considered by the examining division, comprising the erroneous phrase "thus locking the member", was not worded in a manner that clearly and completely defined the invention, claim 1 according to the main and auxiliary requests had been amended to make clear that the hook portion of the latch was not in physical contact with the receiving groove of the member in a normal situation. Original claim 1 did not specify that inserting the member into the receiving port caused the latch to lock the member, and there was no direct basis for this in the specification. The specification even contradicted this interpretation, stating that the member could "be securely and quickly locked with an inner portion of the receiving port" when the member was positioned in the receiving port (page 5, lines 5 to 7; also page 7, lines 15 to 18), or that inserting the member into the inner portion of the receiving port made it "possible to securely lock the stand leg portion 1 with the inner portion of the receiving port 701a" (see page 14).

It was not literally correct that the hook portion of the latch is engaged with the receiving groove as stated in the specification (e.g. page 5, lines 8 to 11, page 14, lines 11 to 12 and claim 1). Admittedly, the term "engaged" used in the specification was not the most accurate term for describing the position of the hook portion of the latch. In a normal situation, the hook portion was positioned immediately over and adjacent the receiving groove in such a position that it physically contacted the receiving groove only if the member moved a very small distance out of the innermost portion of the receiving port in a crash situation. Due to errors or bad drafting, the specification did not distinguish clearly between a normal situation and a crash situation, but upon reading the specification and attempting to put the locking system into practice the skilled person would readily understand what was meant.

Moreover, the application's title "inertia locking system" strongly led to the only possible solution according to the amended requests specifying an operation of the locking system based on inertia forces. If the member were immediately locked when inserting it into the receiving port, then there would be no way of cancelling the locking mechanism. Besides, the technical report filed with letter dated 5 April 2013 did not mention any non-inertia operation of the latch either.

Reasons for the Decision

1. The appeal is admissible.

2. *Amendments (Article 123 EPC)*

2.1 Claim 1 according to both the main request and the auxiliary request has been amended *inter alia* by replacing the feature "so as to engage the hook portion (71d) with a receiving groove (91) provided in the member (1)" (see claim 1 as considered by the examining division) by "so as to move the hook portion (71d) to an engagement position over a receiving groove (91) of the locked member (1)" and deleting the feature "thus locking the member (1)", thus attempting to make clear that the hook portion is not in physical contact with the receiving groove of the member in a normal situation compared to a crash situation. However, in the board's view, the claimed subject-matter extends beyond the content of the application as filed, contrary to the requirements of Article 123(2) EPC.

2.2 The board agrees with the conclusion drawn by the examining division and confirmed by the appellants, that the skilled person, in an initial step, would appreciate the error in Figure 7 and be in a position to dimensionally adapt the components appropriately so that the upper curved portion of the latch with its hook portion could move "around" the member (see para. 3.3 of the contested decision and para. 3.3 of the statement setting out the grounds of appeal).

As further elaborated in the contested decision (see para. 3.4), adapting the dimensions would result in the

hook portion radially facing the receiving groove and no longer contacting the groove; however, such relative position is not the same as the engaged position shown according to Figure 7 and detailed in the application (e.g. page 14, lines 6 to 14 and page 15, lines 6 to 10). Irrespective of the obvious error in Figure 7 mentioned above, in the board's opinion, there is no clear and unambiguous guidance for deriving that Figure 7 is not only incorrect in respect of the relative size of the free space of the latch 71 between the jaw portion 71c and the hook portion 71d in relation to the diameter of the member 1, but also in respect of the position of the hook portion of the latch which should not be in physical contact with the receiving groove of the member 1 in a normal situation when the member is in the innermost portion of the receiving port. The board also agrees with the examining division (see para. 3.6 of the contested decision) that every formulation in the description of the application as filed only mentions the engaging function of the apparatus as a direct result of the insertion of the leg member into the receiving port, which means that the member is immediately locked.

Such immediate locking of the member (referred to as "stand leg portion" in the description) is also in line with the object of the invention as described in the introductory portion of the application, starting from a prior art inertia locking system comprising a latch which is operated after the inertia force caused by a collision is applied. The prior art latch is said to have several disadvantages, in particular a lot of time is required until the prior art latch engages with the stand leg portion. The prior art latch according to

Figures 9 and 10, as compared to the claimed invention, does not show a latch comprising a jaw portion which protrudes from a bottom line of the receiving port receiving the stand leg portion. As pointed out by the board during the oral proceedings, providing the latch with a jaw portion as claimed has the advantage that the stand leg portion is brought into contact with the jaw portion when moving the stand leg portion within the receiving port, which allows the latch mechanism to **immediately** lock the stand leg portion through mechanical actuation of the latch mechanism (as confirmed on page 15, lines 6 to 10 of the description). Moreover, it is explicitly stated (see page 14, lines 6 to 14) that the hook portion 71d is engaged with the receiving groove 91 whereby it is possible to securely lock the stand leg portion 1 with the inner portion of the receiving port 701a. Hence, the application as filed clearly teaches the skilled reader how the invention as claimed operates, i.e. without the detrimental delay of the prior art system which is operated only through inertia forces caused by a collision.

2.3 It is acknowledged that the application's title reads "inertia locking system" and that claim 1 according to the main and auxiliary requests still relates to an "inertia locking apparatus", but, as was pointed out by the board during the oral proceedings, this does not necessarily imply that the only possible solution is the solution according to the amended requests. In the board's opinion, the term "inertia" does not provide sufficiently clear and unambiguous teaching for the skilled person to assume that the hook portion is not engaged with the groove but only takes an engagement

position over the receiving groove. First of all, the influence of inertia forces caused by a collision are only discussed in the specification with respect to the background art, whereas the inventive locking system is described as comprising a latch which is mechanically operated by bringing the stand leg portion into contact with a jaw portion of the latch so that the hook portion engages the receiving groove. Therefore, considering that the application as filed already shows deficiencies with respect to Figure 7, the board was not convinced that the term "inertia" was not an erroneous relict stemming from the cited prior art. Moreover, since the application (see page 15, lines 6 to 10; also page 13, last paragraph) emphasises the immediate locking of the stand leg portion as a result of the operation of the latch, it teaches away from a locking apparatus which is only operated at a later stage by inertia forces caused by a collision.

Also the appellants' allegation that there would be no way of cancelling the locking system with non-inertia operation of the latch does not change the board's view because there might be provided additional means for releasing the locked member.

2.4 The appellants admitted that the term "engaged" used in the specification was not literally correct and not the most accurate term for describing the position of the hook portion of the latch, but the skilled reader upon reading the specification and trying to put the locking system into practice would readily understand what was meant. However, there is no indication in the application as filed supporting the appellants' view that in a normal situation the hook portion is

positioned immediately over the receiving groove without being in physical contact, as argued above. Nor is the meaning of a "hook engaging with a groove" imprecise or unclear so that it would require an interpretation in the light of the specification. It may be noted that the application as filed does not show any separate definition of "engaging".

The general mention in the description as filed that, by providing a receiving groove made of a sintered hard alloy, "a matter that the receiving groove is worn out is not generated" (e.g. page 7, last para.) might indicate that the hook portion brushes past the edge of the receiving groove as argued by the appellants. However, it cannot be derived clearly and unambiguously from this disclosure that the hook portion is moved to an engagement position over the receiving groove as claimed according to amended claim 1.

2.5 As regards the "real-life operation" of the locking system explained by the appellants, the issue at stake is not whether a locking system might operate in the manner described, but whether the skilled person on reading the application as filed, using common general knowledge, would derive the amended subject-matter clearly and unambiguously from the application as filed. The board takes the view that it is not clearly and unambiguously derivable from the application as filed that the hook portion is moved to an engagement position over the receiving groove in a normal situation without locking the member. Claim 1 as originally filed (specifying that "the locked member inserted to the receiving port of the pedestal kicks the jaw portion so as to engage the hook portion with a

receiving groove of the locked member") describes a mechanical actuation of the jaw portion kicked by the member when inserting it into the receiving port, resulting - as expressed by the term "so as to" - in an engagement or physical contact of the hook portion with the receiving groove, i.e. not resulting from the inertia forces acting in a crash situation. Moreover, the application as filed does not distinguish, when describing the invention, between a normal situation where the member is positioned within the innermost portion of the receiving port without being locked by the latch, and a crash situation where the hook portion of the member engages the receiving groove of the member thereby establishing the locked position.

Contrary to the appellants' contention, the board does not see any contradiction between its interpretation that the member is locked when inserting it into the receiving port and the specification itself. The passages cited by the appellants in this context must be construed in the context in which they are used. According to page 5 (and also page 7), the locked member when inserting into the receiving port "kicks the jaw portion so as to engage the hook portion with a receiving groove of the locked member … whereby the locked member can be securely and quickly locked", i.e. again a mechanical actuation of the locking system as argued above is suggested. Similarly, according to page 14 of the original description "the hook portion 71d of the latch 71 is engaged with the receiving groove 91 of the metal block 90, whereby it is possible to securely lock the stand leg portion 1 with the inner portion of the receiving port 701a". Therefore, although the terms "can be" or "possible" on their own

might suggest that a locked position of the latch is only achieved at a later stage (e.g. during a collision when inertia forces are acting), the preceding passages clearly express that the hook portion is already engaged with the receiving groove. Thus, the passages cited by the appellants merely describe the effect of locking the member or stand leg portion as a result of the engagement of the hook portion and the receiving groove when inserting the member into the receiving port. A further support can be found on page 15 of the description as argued previously, which states that "it is possible to **immediately** lock the stand leg portion 1". There is no clear and unambiguous teaching that any further rotation of the latch or movement of the member due to e.g. the inertia force caused by a collision is necessary to establish the locked state.

2.6 As regards the technical report filed by the appellants with letter dated 5 April 2013, it is firstly noted that the board has enough expertise to judge on what is actually disclosed in the present application without actually relying on this report.

In any event, the report confirms the board's view that the amendments filed with the main and auxiliary requests are not clearly and unambiguously derivable, using common general knowledge, from the application as filed. As stated in the report's summary, "it is possible that a minor modification to the concept as described could make the mechanism feasible and that this may have been the original intended concept by the applicant, but the description does not describe this sufficiently and one of the figures would need a significant modification". Moreover, considering the

error in Figure 7 and applying a possible modification, the report concludes that "the mechanism could operate as a dynamic latch" and "would require careful tuning". The report ends by stating that "this may be technically feasible but is not mentioned in the patent application". On the one hand, it is explicitly stated that the intended concept is not sufficiently disclosed in the application. On the other hand, an appraisal of what "could" or "may" be meant, after having identified an error in the application in Figure 7, does not help in providing a proof that the correction mentioned in the report is the only possible solution, i.e. a solution clearly and unambiguously derivable from the application as filed.

2.7 Consequently, since the application as filed consistently teaches that the latch is operated when moving the stand leg portion within the receiving port 701a and immediately locks the stand leg portion by engagement of hook portion and receiving groove, thereby eliminating the drawbacks of the prior art locking system (e.g. time delay until latch engages), the board cannot follow the arguments provided by the appellants which were brought forward in support of sufficient disclosure and at the same time affect the disclosure of amended subject-matter. In particular, the application as filed neither discloses directly and unambiguously that the hook portion of the latch is not in physical contact with the receiving groove on insertion of the member into the receiving port, nor it is clearly and unambiguously derivable disclosed that the locked member (1) kicks the jaw portion (71c) "so as to **move** the hook portion (71d) **to an engagement position over** a receiving groove (91)" as claimed.

Accordingly, claim 1 as amended according to the main and the auxiliary requests is not allowable for lack of compliance with the requirements of Article 123(2) EPC.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

A. Vottner G. Pricolo